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Entrepreneurship education in South Africa: a nationwide survey

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Abstract

Purpose – This paper aims to assess the state of development of entrepreneurship education, determine the importance of entrepreneurship in the South African higher education institutions (HEIs), and offer recommendations for improving preparations for the developing field.

Design/methodology/approach – An e-mail survey has been conducted on South African HEIs. The respondents were academic staff members who are involved in teaching and researching entrepreneurship.

Findings – Results indicate that the entrepreneurship education in South Africa is in its developmental stage, although it is perceived as important in elevating the profile of any institution and there is increasing commitment from the institutions in academic, research and outreach offerings in entrepreneurship. The teaching and assessment methods follow traditional classroom delivery while research in entrepreneurship in South Africa is perceived as less rigorous than other management disciplines.

Research limitations/implications – Although all HEIs were requested to become respondents in this survey, some have decided not to participate. Also, some academics involved in entrepreneurship may have been excluded if they are not on the e-mail list of the Academic Entrepreneurship Society (AcES) of South Africa.

Practical implications – The findings suggest recommendations geared towards curriculum development, evaluation of teaching and assessment methodologies as well as the creation of partnerships with local communities for opportunities in internships and worksite visits.

Originality/value – This is the first study conducted on entrepreneurship education in South Africa, based on a national study encompassing most HEIs in this country.

Keywords Entrepreneurialism, Higher education, Teaching methods, South Africa

Paper type Research paper

Background

The current state of the South African economy at present is a cause for concern for most young adults as they are confronted with problems of crime, corruption, mismanagement and unemployment (North, 2002, p. 24). It is estimated that more than 8 million people will be unemployed in South Africa by 2010 (Gouws, 1997, p. 143). South Africa's capacity to absorb new recruits into the formal sector has fallen from approximately 62 per cent to less than 4 per cent in the last three decades (Davies, 2001, p. 32). Therefore, for young people to escape this, active intervention is necessary. There is therefore an urgent need for young people to be trained and educated in the field of entrepreneurship. This will hopefully encourage them to become job-creators instead of job-seekers once they leave the educational system.

It is not surprising, therefore, that it is now widely held that the only way for South Africa to effectively address unemployment and revitalise the economy is through the rediscovery of the entrepreneur who takes risks, breaks new ground and innovates. Unfortunately, the extant entrepreneurial base in South Africa is neither wide nor solid



(Davies, 2001, p. 32). The majority of South Africans have grown up with little home experience of business innovation or entrepreneurship and hence do not view themselves to be potentially as such. Although Black South Africans constitute the overwhelmingly majority of the potential labour force (90 per cent), they account for only 4 per cent in terms of entrepreneurial initiative (BMR, 1995). The same BMR (1995) states that, "For the Black population to compensate for the economic imbalance arising from the proliferation of their labour force members – and disregarding the backlog of workers not in employment – they will have to expand their entrepreneurial cadre in the formal sector 11 times over the period of 20 years".

Entrepreneurship is a young developing field with growing importance in the global business environment. Because of this, there has been an increased demand for entrepreneurship courses that come from students who are interested in starting their own businesses. Because the demand has increased, there has been a need for an increased number of faculties to deliver these courses, administer programmes and conduct research in the area. As a result, the preparation of faculty to participate in entrepreneurship activities is of substantial importance. It is also important to understand how higher education institutions (HEIs) are meeting the enhanced demand and staffing the courses and programmes. At present, there have been no studies in SA that investigate the state of entrepreneurship education in the country. Some South African studies that have been conducted on entrepreneurial education are focused on the secondary school level (North, 2002; Gouws, 2002). Other studies have looked at the current methodologies being used by universities in teaching entrepreneurship but none cover a nationwide perspective (Kroon and Meyer, 2001; Davies, 2001).

Role of HEIs

The previous economic structure in South Africa was well served by HEIs in that they provided a resource pool for large corporations. This, however, has developed a student mindset that favours employment in big business in the formal sector. With an economy in transition, small businesses now account for an increasing proportion of economic activity, Hence, HEIs need to redefine their role in the economy and society, specifically in what they offer.

HEIs can help create a more entrepreneurial disposition among young people by instilling a clear understanding of risks and rewards, teaching opportunity seeking and recognition skills, as well as creation and "destruction" of enterprises. They can also play a role in developing entrepreneurial traits in students and can provide the necessary support for entrepreneurs as well as provide legitimacy to their endeavours. These institutions however need to go much further and should become more active in economic development and link their research activities to local development. They must also be encouraged to inform local planning and policy making, support the development of industrial infrastructure, and improve access for historically disadvantaged communities.

In Kroon and Meyer's (2001) study on university students taking an entrepreneurship course, they found that although strong emphasis has been placed on entrepreneurship education in tertiary institutions since the early 1990s, exposure to one course in entrepreneurship does not ensure entrepreneurial orientation or more positive expectations about entrepreneurial abilities and careers. They recommend

that entrepreneurship education must be implemented earlier in the educational system.

In a survey of business people, Kroon *et al.* (2003, p. 322) found that although business people recognise the role they play, they do not feel an obligation towards involvement in schools in order to invest in the community and the responsibility they have in developing the next generation of entrepreneurial employees and potential entrepreneurs. This can be explained by the absence of an organised system of youth entrepreneurial leadership programme. Another possible reason is that the employers do not understand the urgency of the problem.

Nieuwenhuizen and Kroon (2002, p. 157) suggest that a holistic approach is necessary to foster an entrepreneurial culture in society. The educational system has to be supported by economic and political institutions to inculcate the entrepreneurial culture in society and to ensure the facilitation and actual establishment of enterprises. The authors suggest a framework for the training, education and development of potential entrepreneurs using success factors identified in interviews with senior managers, managers and entrepreneurs. They found that the primary factors that contribute to the success for the enterprise are similar to those individuals with high need for achievement. They recommend that these success factors should be incorporated in the educational system through adequate training, development and educational models to establish an entrepreneurial culture.

Areas of entrepreneurship education

Laukkannen (2000) distinguishes two areas of entrepreneurship education:

- (1) *Education about entrepreneurship*. This involves developing, constructing and studying the theories referred to the entrepreneurs, the firm creation, the contribution to economic development, the entrepreneurial process and the small and middle sized firms. It takes into account undergraduate, Masters and PhD students as well as policy makers and researchers. It views entrepreneurship as a social phenomenon.
- (2) *Education for entrepreneurship*. This addresses present and potential entrepreneurs with the objective of developing and stimulating the entrepreneurial process, providing all the tools necessary for the start-up of a new venture both within an outside an existing organisation.

Education about entrepreneurship is mainly based on the construct and transference of knowledge about the field, while education for entrepreneurship focuses on the learning experience and the development of competencies, skills, aptitudes and values (Postigo and Tamborini, 2002). Therefore, the teaching methods used in each of these areas vary.

According to Klandt (1993), methods that are most frequently commonly used in teaching entrepreneurship include: reading, lectures, guest speakers, case studies, on-site visits, research papers, thesis/dissertations, and workshops. For specifically educating about entrepreneurship, Klandt (1993) cites the following methods more commonly utilised: consulting services by students and researches while educating FOR entrepreneurship involves using techniques such as: videos, practical work, writing business plans, computer simulations, role playing games, working with entrepreneurs, and joining a students' entrepreneurial club.

Aims of the study

The following are the specific aims of this research:

- to assess the state of development of entrepreneurship education in South African higher education;
- to determine the importance of entrepreneurship in the South African HEIs; and
- to offer recommendations for improving preparations for the developing field.

Methodology

The higher education sector is currently undergoing extensive restructuring to position itself to meet the national requirements for skills development in the context of globalisation. As of 1 January 2005, there are 11 “traditional” universities, six comprehensive universities (offering both university and university of technology qualifications) and 6 universities of technology (former technikons) in the country and the researcher has tried to contact all of them. The response rate was quite good.

A nationwide e-mail survey was circulated among academics from all higher education institutions in South Africa. Administrators such as deans, heads of schools and directors of entrepreneurship centres as well as lecturing staff were targeted as respondents of this investigation. Academics involved in entrepreneurship teaching and research were contacted using the Academic Entrepreneurship Society (AcES) of South Africa e-mail list. However, there were a few institutions that were not involved in the AcEs. These institutions were contacted by e-mail using contact information in their respective web sites. Most of the respondents replied on the first e-mail. Others were sent a follow-up e-mail after two weeks of non-response. Unfortunately, some of the targeted respondents never replied. In such cases, other academics from the same institution were contacted to be replacement respondents.

The questionnaire was formulated using a combination of two existing researches (Solomon, 2002) on entrepreneurship education in the USA although the researcher has modified some of the questions to suit the South African context. The questionnaire contains several parts: profile of the respondents and their respective institutions; courses offered by the institutions; perceived importance of entrepreneurship in the institution; inside and outside classroom and assessment methodologies utilised; assistance offered aside from academic programmes; linkages with government institutions; involvement in outreach programmes; and perceptions on entrepreneurship education issues.

This paper will only highlight the preliminary results consisting mainly of descriptive statistics. A separate in-depth comparative analysis among the different types of higher education institutions will follow.

Discussion of results

Table I presents the profile of the respondents according to age, gender, position and status in their institution, and whether the degrees they obtained had any entrepreneurship concentration. The results indicate that the respondents were relatively young, with more than half (78 per cent) aged below 50. Most of the respondents were male (70 per cent) and the researcher believes that this is a realistic reflection of the gender distribution of academics in entrepreneurship.

Half of the respondents were lecturing staff, while heads of schools and heads of entrepreneurship centres both comprised 14 per cent of the respondents. Almost

ET 48,5	Category	Description	Percentage
352	Age	Under 30	8
		30-39	31
		40-49	39
		50-59	23
		Above 60	0
	Gender	Male	70
		Female	31
	Position	Dean	0
		Head of school	0
		Head of department	14
		Head of entrepreneurship centre	14
Lecturing staff		50	
Status in institution	Full-time permanent	81	
	Full-time contractual	4	
	Part-time permanent	4	
	Part-time contractual	0	
	Masters student	0	
	PhD/doctoral student	8	

Table I.
Profile of respondents

all respondents (81 per cent) were full-time and permanent staff. The results also show that 36 per cent of the PhDs, 32 per cent of the Masters, 14 per cent of the Diplomas and 9 per cent of the undergraduate degrees obtained by the respondents had entrepreneurship concentrations. The respondents also indicated that they have been involved in entrepreneurship teaching from between five to 25 years.

The profile of the institutions are shown in Table II. The respondent institutions have started involvement in entrepreneurship education from as early as 1990 to as recent as 2002. A total of 33 respondents, representing three comprehensive universities, eight "traditional" universities and four universities of technology, responded to the survey. The majority (51 per cent) of these institutions did not have any endowed positions, the rest had either an endowed centre (23 per cent), an endowed professor (6 per cent) or an endowed chair (16 per cent). Almost two-thirds of the respondents perceived their institution as an academic institution with strong research emphasis, while the remaining third perceived teaching as their institution's primary emphasis. A list of the institutions involved in this investigation can also be found in Table II.

An overwhelming number (90 per cent) of respondents indicated that they offered entrepreneurship as a course in their institution. Other popular courses include small business management (77 per cent), small business finance (52 per cent), and new venture creation (52 per cent). Other courses that are emerging in the curriculum include franchising (39 per cent), innovation and technology (35 per cent) and growth management (29 per cent). A possible reason why entrepreneurship is the most demanded course is that most institutions incorporate a general overview of what is involved in the process and this would include the topics in the other entrepreneurship courses (such as finance, franchising, creativity, growth and small business management).

Category	Description	Percentage	Entrepreneurship education
Type of institution	Comprehensive University	35	353
	Traditional University	36	
	University of Technology	29	
Types of endowments	Centre	23	
	Professor	6	
	Chair	16	
	Centre and Professor	0	
	Centre and Chair	3	
	Professor and Chair	6	
	None	51	
Type of academic setting	Strong research emphasis	64	
	Primary teaching emphasis	43	
Name of institution	Cape Peninsula University of Technology		
	Durban Institute of Technology		
	Mangosothu Technikon		
	Nelson Mandela Metropolitan University		
	North West University		
	Rhodes University		
	Tshwane University of Technology		
	University of the Free State		
	University of Johannesburg		
	University of KwaZulu-Natal		
	University of Pretoria		
	University of Stellenbosch		
	University of South Africa		
University of Western Cape			
University of Witwatersrand			

Table II.
Profile of institutions

According to the results, 79 per cent of the respondents' institutions have full-time permanent staff members primarily involved in entrepreneurship teaching and research. About 20 per cent have both full-time and part-time contractual staff involved in the subject area, while 14 per cent have full-time contractual staff. About one-quarter have Masters students and 39 per cent have PhD students involved in entrepreneurship teaching and research (Table III).

Course	Percentage	Table III.
Entrepreneurship	90	Courses offered in the area of entrepreneurship and small business management
Small business management	77	
New venture creation	52	
Family business	23	
Innovation and technology	35	
Franchising	39	
Small business finance	52	
Venture capital	19	
Creativity management	23	
Growth management	29	

Most respondents acknowledge the importance of entrepreneurship as a subject field in their respective universities. For undergraduate level, 35 per cent indicated that it is very important, while 32 per cent said it was important. For Masters level, 42 per cent of the academics viewed it as important, while 19 per cent perceived it as very important. For diploma level, 32 per cent viewed entrepreneurship as important for their institution. For PhD level, only 36 per cent of the respondents indicated entrepreneurship as important, while 32 per cent in the diploma level perceived it that way. This result could perhaps be explained by the fact that entrepreneurship is perceived by students as a practical subject area hence its importance in the undergraduate and Masters levels. Most students however, prefer to focus on more traditional subject areas (such as strategy, human resources management, marketing, finance) in the PhD level as entrepreneurship is perceived only as an emerging area of academic study. There are also fewer academics specialising in entrepreneurship hence, the number of students that can do PhDs in this subject area are limited (Table IV).

For the undergraduate level, the most commonly used in-class method is the lecture (65 per cent), followed by creation of business plans (58 per cent), discussions (55 per cent), case studies (52 per cent) and guest speakers (45 per cent). For the Masters level, the most common in-class methods used are: research projects (45 per cent, discussions and case studies (45 per cent) and lectures (32 per cent). For the PhD level, conducting research projects (23 per cent) is the most common in-class method used. For diploma level, creation of business plan (32 per cent), lectures (26 per cent) and case studies (23 per cent) are the more commonly used methods in-class. The results show that South African HEIs still predominantly adhere to traditional in-class methods of teaching although there is an emerging trend towards the utilisation of more modern techniques such as role play and computer simulations (Table V).

The results of the outside class methods indicate that only a few institutions utilise them and predominantly on the undergraduate level. On-site visits, feasibility studies and community development were the most commonly used methods. Both undergraduate and Masters students were involved in small business consulting as well. The findings show that universities do not utilise as much outside class methods. These methods have the potential to teach and practice important skills and exposure to necessary behaviours critical to entrepreneurship development (Table VI).

Undergraduate and diploma students taking entrepreneurship courses tend to be assessed using more traditional methods such as examinations (61 per cent), tests (57 per cent), and business plans (54 per cent). On the other hand, Masters and PhD students are assessed more on their research capability through research papers and thesis/dissertations. These findings reflect the pedagogic objectives based on the level of study: knowledge understanding for undergraduate, critical thinking, application and creation of knowledge for Masters and PhD levels (Table VII).

Level	Very important	Important	Not important
Undergraduate	35	32	10
Masters	19	42	10
PhD	13	23	13
Diploma	16	16	10

Table IV.
Importance of
entrepreneurship in the
respondent's institution

Method	Undergraduate	Masters	PhD	Diploma	Entrepreneurship education
Lectures	65	32	10	26	
Discussions	55	42	16	19	
Case studies	52	42	10	23	
Creation of business plans	58	29	3	32	
Guest speakers	45	29	0	16	
Research projects	26	45	23	16	
Videos	32	13	3	13	
Role play	19	10	3	6	
Computer simulation	19	10	6	6	
Workshop/seminars	6	13	6	10	
Others	3	6	0	3	

Table V.
In-class pedagogic methods used

Method	Undergraduate	Masters	PhD	Diploma	Outside class pedagogic methods used
Internships	21	4	4	7	
On-site visits	32	14	7	14	
Small business consulting	29	14	7	7	
Community development	29	7	7	11	
Feasibility studies	32	25	7	7	
Others	4	4	0	4	

Table VI.
Outside class pedagogic methods used

Method	Undergraduate	Masters	PhD	Diploma	Major assessment methods used
Tests	57	21	4	21	
Examination	61	32	7	21	
Business plan	54	18	4	29	
Case study	36	29	4	14	
Research paper	4	43	7	4	
Thesis/dissertation	0	36	25	0	

Table VII.
Major assessment methods used

Aside from offering courses through the traditional classroom delivery method, assistance was also offered to entrepreneurs and the general public. Almost half (46 per cent) provided management assistance to entrepreneurs. About 40 per cent helped small business people on the technical aspects of their enterprises. Almost one-third provided continuing education programmes in entrepreneurship and about a quarter of the respondents said their institutions provided distance learning, executive development courses and internship opportunities with local companies.

The respondents also said that their institutions had linkages with local (57 per cent), provincial (39 per cent) and national (36 per cent) government agencies. These involve collaborations in community development, research, policy formation and infrastructure building activities.

The higher education institutions are also involved in outreach programmes particularly with nearby communities (57 per cent), secondary schools (4 per cent) and to a much lesser extent primary school (7 per cent) (Table VIII).

The academics were asked several questions on entrepreneurship education issues on a five-point likert scale (Strongly agree – SA, Agree – A, Neutral – N, Disagree – D and Strongly disagree – SD). A summary of the results can be seen in Table IX.

The results indicate that 36 per cent of the respondents strongly agree and 43 per cent agree that an institution in SA can gain a top reputation with a strong focus in entrepreneurship. This relates to the results of the issue “a strong programme in entrepreneurship is essential for our institution to be highly regarded” with 25 per cent strongly agreeing and 36 per cent agreeing.

Table VIII.
Assistance offered
outside academic
programmes

Assistance	Percentage
Management assistance to entrepreneurs	46
Technical assistance to entrepreneurs	39
Distance learning	29
Executive development courses	21
Continuing education programmes	32
Internship opportunities with small local companies	21

Table IX.
Perceptions on
entrepreneurship
education issues

Statement	SD	D	N	A	SA
An institution in SA can gain a top reputation with a strong focus in entrepreneurship	0	4	7	43	36
Entrepreneurship research in general is rigorous	0	18	14	39	15
Entrepreneurship research in South Africa is rigorous	0	29	36	21	4
Faculty could gain tenure(become permanent) in my institution by publishing in entrepreneurship journals	14	4	14	50	7
This school's commitment to academic offerings in entrepreneurship is increasing	0	4	14	46	21
This school's commitment to research in entrepreneurship is increasing	0	18	4	39	21
This school's commitment to outreach offerings in entrepreneurship is increasing	4	14	21	29	14
A strong programme in entrepreneurship is essential for our institution to be highly regarded	4	11	14	36	25
Our donors and resource providers support a strong programme in entrepreneurship	0	25	36	14	14
The field of entrepreneurship has a unique theoretical and scholarly domain	7	11	7	39	25
Specialised doctoral studies and research are required to be an entrepreneurship scholar	18	11	21	14	21
Faculty teaching entrepreneurship primarily need to have practical experience and business contacts	4	7	4	39	36

Although the respondent academics perceive entrepreneurship research in general as rigorous (15 per cent – SA; 39 per cent – A), they perceive South African entrepreneurship research as less rigorous (21 per cent – A; 36 per cent – N; 29 per cent – D). More than half of the respondents (57 per cent) do however, recognise that publications in entrepreneurship journals can lead to tenure. The findings also show that 25 per cent (SA) and 39 per cent (A) of the respondents perceive the field of entrepreneurship as a unique theoretical and scholarly domain.

The results of the investigation indicate that the respondents are ambivalent as to whether specialised doctoral studies and research are required to be an entrepreneurship scholar (25 per cent – SA and A; 29 per cent – SD and D). They however, believe that faculty teaching entrepreneurship need to have practical experience and business contacts (75 per cent – SA and A). This resulted falls in line with the findings which show that only few of the respondents actually have degrees that have entrepreneurship concentrations.

There is a consensus among the respondent academics that there is an increase in commitment to the academic offerings (57 per cent), research (60 per cent) and outreach offerings (47 per cent) in entrepreneurship in their respective schools, although there is no corresponding donor and resource provider support (36 per cent – N; 26 per cent – D). This supports the findings in Table IV on the perceived importance of entrepreneurship.

Conclusions and recommendations

It is evident from the results of this investigation that entrepreneurship education in South Africa is at its early stages even though some of the HEIs have been involved since the early 1990s. The findings show that the courses offered, teaching methodologies as well as assessment methods still adhere to the more teacher-centred way of teaching although some institutions are trying to develop new courses and use more non-traditional modes of delivery that require more interaction and participation from students.

The investigation also shows that there is an increased commitment by schools to academic offerings, research and outreach activities related to entrepreneurship. The results support the view that most HEIs and academics are starting to recognise that entrepreneurship is an important subject area to focus on, and that a strong programme in entrepreneurship is necessary for an institution to be recognised. There seems to be however, a perception that the research on entrepreneurship in South Africa is not rigorous. As this research proves, there has been very little done on entrepreneurship education.

Based on the results of the study, the following recommendations are made:

- Curriculum development must be a continuing process involving a collaboration of higher education institutions, secondary education institutions, and government agencies. Secondary education institutions need to be involved in this process as they will influence the early interest or motivation of the youth to study entrepreneurship. This will also ensure that there is congruence in the knowledge, skills and values imparted to students to what the market currently needs.
- HEIs have to evaluate whether their present teaching and assessment methodologies are effective. At present the techniques being used educate

about entrepreneurship rather than for. There needs to be an evaluation on whether these techniques help accomplish the objectives set out by the courses. There should also be an increased use of more interactive methods such as role playing and simulation for students to practise analytical and decision making skills. Outside classroom methods such as internships, small business consulting and community development can be encouraged to expose the students to actual problems and experiences of entrepreneurs. This can also help students decide whether they are cut out to be entrepreneurs or not.

- Partnerships with local communities and small business owners can also help higher education institutions. These linkages with communities and small businesses can open up avenues for internships and on-site visits as well as provide consulting opportunities for third year or Masters students. HEIs on the other hand can help these communities and small businesses by providing them with the technical, marketing or management assistance they need to grow or expand, as well as create special courses or training based on their requirements.
- Academics in HEIs have to continually update themselves by attending international conferences on entrepreneurship education (such as IntEnt) to be exposed to new trends in teaching and curriculum development. If possible, these institutions should examine the possibility of creating linkages with international universities with strong entrepreneurship programmes. These collaborations would benefit South African universities through “transfer of technology”. Student exchanges between countries will also be beneficial to students as they will be exposed to a myriad of entrepreneurial contexts.
- In terms of research, academics need to continuously improve by attending international conferences on entrepreneurship (such as ICSB, RENT, ISBE) and reading up on accredited entrepreneurship journals. Conferences also provide academics a venue to network and meet other people doing similar research and can possibly result in future collaboration. Presenting papers in conferences is a good way to obtain constructive feedback from peers. These useful comments can improve the quality of one’s research and will hopefully increase the paper’s publication potential.

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