THE CASE FOR AN ADAPTED COMMUNITY COLLEGE MODEL FOR SOUTH AFRICA TO ADDRESS THE PROBLEM OF NEETS

C. C. Wolhuter*
e-mail: Charl.Wolhuter@nwu.ac.za

J. L. van der Walt*
e-mail: hannesv290@gmail.com

F. J. Potgieter*
e-mail: Ferdinand.Potgieter@nwu.ac.za

*Unit for Education and Human Rights in Diversity
North-West University, Potchefstroom Campus
Potchefstroom, South Africa

ABSTRACT

A serious problem in South Africa is the existence of 2.8 million people we can refer to as NEETs. This term refers to youths between the ages of 18 and 24 years who are neither in employment nor in education or training in South Africa (Cloete and Butler-Adams 2012). This article argues for the institution of community colleges to fill the niche between colleges for further education and training and universities. This niche represents a model of higher education that has already internationally proven its value for steering NEETs into worthwhile careers. After a conceptual clarification of the term 'Community College' and an overview of its track record, it is argued that the South African context dictates for the model to be adapted in two ways. Firstly: a South African community college should fully utilise ICT (Information and Communication Technology) and offer education of a blended type. Secondly, as a result of this, the concept of 'community' needs to be redefined more broadly than has traditionally been the case with community colleges abroad.

Keywords: higher education, community colleges, international comparative perspectives, NEETs, ICT technology, blended learning

1. THE 'COMMUNITY' IN SOUTH AFRICAN 'COMMUNITY COLLEGES' TO BE REDEFINED

The purpose of this article is to argue for the institution of community colleges to fill the niche between colleges for further education and training and universities. The argument is two-pronged. It is argued, firstly, that a need for such community colleges exists to address the problem of NEETs (young people 'not in education and not in employment and training'). It is argued that the existing educational structures in South Africa cannot meet the needs of this particular group of people, and that structures at a new level are required. Secondly, it is argued that the proposed new community colleges should be of a special nature; in other words, the term 'community' should be differently defined from the traditional approach to these colleges. On the basis of this modified definition, all the other aspects and facets of community colleges should be reconsidered within the South African context. The main thrust of this second argument is that 'community' in the term 'community college' should be differently defined because of the large range of communication technologies now available for learning.

2. ON A METHODOLOGICAL NOTE

The authors asked themselves what constitutes the existence of higher education and community colleges (cf. Craig 2005, 756). Higher education and community colleges are both social (if not societal) constructs, implying that although they are essentially (i.e. theoretically) unobservable, they are nevertheless observable as human artefacts and as consistent sets of behaviour (Jaeger 1988, 326). It was subsequently decided to apply an adapted form of hermeneutic phenomenology[1], because we wanted to penetrate to the *eidos*, the 'nature of that which is empirically revealed to the researcher's consciousness as it really is'. In this regard, our utilisation of an adapted hermeneutic phenomenology might also be understood as a form of transcendental critique, because it was originally employed by, for example, Kantian philosophers, to denote a discovery of the conditions that are necessary for the thing under scrutiny to operate or to be − in this case, what may be considered to be necessary for higher education and community colleges to be observable as social constructs, human artefacts and 'consistent sets of (social) behaviour' (Jaeger 1988, 326). We argue that the notion of 'community' in the term 'community college' should be differently defined, because of the advent of a large range of communication technologies. This implies that other aspects of the community college of the future might also have to be redefined. It was, therefore, necessary for us to identify the essential features of higher education and community colleges. For this reason, as well as for purposes of developing the conceptual-theoretical framework below, we have made use of an interpretive-constructivist approach to the data (Onwuegbuzie, Johnson and Collins 2009). Our analysis of the key words of the investigation led us to draft a theoretical framework in terms of which we could

interpretively approach the notion of 'community colleges', and with which we could formulate an opinion about the degree to which they seem to conform to the criteria that we propound in the framework (Ritchie and Lewis 2003). Since we approached the notion of 'community colleges' descriptively, and weighed our findings against the conceptual-theoretical framework, our research method in analysing their educational worth can be referred to as descriptive-normative (Creswell and Garrett 2008).

The purpose of our investigation was finally to formulate what St Clair (2005, 448) calls a heuristic, in other words, a thesis or proposition that may serve to discover something, and/or may be conducive to understanding or explaining it (Macey 2001, 182). Alternatively, it was our objective to derive a model 'of an educational process that provides useful insights without necessarily capturing every possible detail of the (respective) interaction(s)' (St Clair 2005, 448). The task of empirical heuristics is to make sense of scientific findings within particular contexts and to make these into a tool for thinking. Through this process, we endeavoured to explore, explain and understand community colleges as a possible solution to the growing problem of NEETs. Although heuristics may be viewed as a problem-solving procedure that may fall short of providing final proof (Honderich 2005, 381), it is nevertheless present here in an attempt to participate in and to contribute to the current scholarly discourse.

3. COMMUNITY COLLEGES NEEDED TO ADDRESS THE NEEDS OF NEETS

Each year, the announcement of the final school year results, known in South Africa as National Senior Certificate or matriculation examination results, elicits a number of discussions. An important discussion, though not important for this article, is the problem of attrition during the previous 12 years of schooling. Large numbers of learners drop out along the way and eventually do not have the opportunity to sit for the matriculation examination. This is a fundamental problem. Of greater importance for the present discussion are the large numbers of students (337 000 in 2012) that pass the matriculation examination (Cloete 2013, 32) and qualify for university entrance. Universities can only accommodate approximately 128 000 new students per annum, that is, only 34 per cent of those that qualify, which means that many of these students cannot be accommodated. Because of the state of the economy, these young people cannot find employment either. The result is that 2.8 million people between the ages of 18 and 24, or 41 per cent of the cohort, are currently unemployed. They are, furthermore, neither studying at an educational institution, nor undergoing any vocational training (Cloete and Butler-Adams 2012). This group, not at university and also not employed, has been referred to as NEETs. The presence of such an ever-increasing group of NEETs is not only detrimental to the economy but also to the socio-political stability of the country.

Community colleges represent a category of educational institutions that have, up till now, not been part of the South African education system. The establishment of such colleges has, however, become crucial if we want to provide training for the ever growing group of NEETs. According to Wiseman and Chase-Mayoral (2013), this category of higher education institutions has already proven its value for steering NEETs into worthwhile careers. Despite the importance of these institutions, not much research has been done on them and their offerings (Raby and Valeau 2013, 115). This has to change in view of the importance of these institutions to address the NEETs problem in South Africa and other countries where similar situations prevail. As mentioned above, the community colleges envisaged for South Africa in the 21st century will, however, have to be quite different compared to the 'standard' or 'traditional' model. They will have to define the term 'community' differently from the prevailing definition that applies to the 'traditional model'. As alluded to above, this change in definition of the term 'community' will also have several ramifications as a result of the current explosion in social/communication technology.

4. THE NOTION OF 'COMMUNITY' IN COMMUNITY COLLEGES REVISITED

In the scaffolding of educational institutions, community colleges are located at a level between universities, on one hand, and further education and training colleges, whose output is comparable with Grade 12 of secondary schools, on the other. These colleges operate on levels 2, 3 and 4 of the National Qualifications Framework (NQF), whereas community colleges are expected to operate on level 5 at least. (University training starts at NQF level 5 and then proceeds to NQF level 10.)

Community colleges have been instituted in different parts of the world to meet the needs of those who have already passed Grade 12, but cannot gain access to universities. Their presence is important in view of massification (the shift from elite to mass participation) in higher education, the advent of globalisation, competition, differentiation, the free market and the knowledge society, which is the focus of the next section. Community colleges in the traditional sense of the term clearly have been assigned a special niche in the higher education system: to provide for those who cannot gain access to universities, but still have to prepare themselves for productive lives in the current competitive societies of the world. Of 2.8 million NEETs, 696 992 have passed Grade 12 (88 074 have some form of post-school qualification, while approximately 2.0 million have an education somewhere below Grade 12) (RSA 2012a, 4). These 696 992 are ready to be enrolled in some form of higher education programme − society cannot afford to have large numbers of NEETs wandering around unproductively.

Community colleges originated in the United States of America. They have since constantly been adapted in response to societal changes (Raby and Valeau 2012, 20). It is difficult, therefore, to offer a simple or universally acceptable definition of the concept

'community college'. According to Wolhuter (2011, 1207−1208), community colleges, at least in the form that they have acquired in the United States of America, reveal the following features. They firstly offer tuition and training at post-secondary school level (In the USA, some of them offer two-year associate degrees: 'A' degrees; others offer four-year Bachelors or 'B' degrees, and a few even offer qualifications pegged at a higher level). After having obtained associate degrees from community colleges, some of their alumni move on to universities for another two years to obtain their bachelor's degrees. Secondly, these colleges maintain close ties with their surrounding communities (local community, business and industry). It is in this regard that an adaptation is suggested for community colleges for South Africa. In the third place, these colleges are well placed to offer a diversity of curricula and programmes. They offer tuition and training of an academic, technical and vocational nature. They offer full-time as well as short and part-time courses. They teach young students as well as older people. This is another aspect of the colleges for South Africa reconsidered below. They are, in the fourth instance, characterised by diversity as far as their student corps is concerned, in the sense that they should be able to serve as a catch-all for students who have passed Grade 12, but who can neither gain access to universities nor find employment (The nature of training to be provided, the mode of delivery and articulation routes that are considered best for the South African context, are addressed later in this article).

A study of community colleges in various parts of the world has revealed that these colleges have indeed provided for the needs of a large variety of social contexts and for a variety of reasons. They have adaptable structures. They tend to provide open access and to act as bridges to advanced studies at university. They are also relatively affordable to erect and to attend; they provide affordable vocational and technical training. They, furthermore, meet the requirements of massification, in the process contributing to greater social mobility and social equality. They have a demonstrated ability to mobilise their communities to participate and to contribute to their needs. They respond with relative ease to technological advances. They are also able to avoid domination by national authorities (i.e. they are able to maintain their institutional autonomy) and they are able to help erase the stigma that technical and vocational training is, somehow, inferior to academic training at universities.

Given the fact that for nearly 20 years a substantial number of NEETs have been produced in South Africa, we need to reconceptualise the term 'community' in the concept of community colleges. Whereas in traditional community situations it made sense to have a college that is geographically located within or near a particular community, the availability of a great variety of social and communication media has necessitated the redefinition of 'community' in this context. Several criteria could come into contention when erecting a community college:

It would be prudent to spread the colleges proportionally to the population density throughout the country so that students who prefer physical attendance could reach a

college with the minimum of travelling expenses. This has to be done to avoid the cost of building hostels or providing other accommodation. Students could study from home. The fact that 49 per cent of South Africa's population is rural, once more underscores the imperative to harness technology and opt for an open distance or mixed delivery mode (expanded upon later in this article).

Population density would not always justify the erection of a college. In such cases, the community to be served by a college should be defined not in geographical terms, but rather in terms of its accessibility through modern technology. The erection of a college with a number of satellites for the delivery of tuition and programmes could be considered.

Vocational training could be a problem in the latter situation. Since it might not be viable to erect workshops at all the satellite campuses, one option would be to provide theoretical training through the various information and technology media, up to the point where students could be brought to the main campus for practical training and workshops (Accommodation and meals would have to be provided in such cases.)

As published by the Department of Higher Education and Training, a list of the top 100 scarce skills that South Africa needs, happens to include many skills that community colleges could easily help train people for. These include Information and Communications Technology Systems Analyst (number 27 on list), Retail Buyer (56), Information and Communications Technology Manager (66), Human Resources Manager (80), Chief Information Officer (90), Auditor (93) and Quality Systems Manager (99) (RSA 2014). Vocational training that does not require the same ponderous equipment as woodworking, bricklaying, plastering, plumbing or electrical work could be provided through information and communication media (e.g. computer typing skills, mastering computer programmes, training to become a counsellor, mentor or life-coach, accountant or investment expert). These forms of vocational training illustrate the point that the 'community' in community colleges should be conceived in terms that are more suitable for the new contexts in which these colleges are required to operate. When erecting a community college for the 21st century, its founders will have to reflect on how they envisage the community that the college is expected to serve. While taking into account the needs of the NEETs in the direct vicinity, they could expand the notion of 'community' to include a countrywide and even worldwide community of, for instance, young people wishing to become life-coaches. The tuition could be provided on DVDs or digital book-disks that include all the relevant theory, exercises, practical illustrations and guidelines for tests and examinations. Problems with the delivery of tuition and the taking of examinations and tests range from very serious in the case of students in very poor deep rural areas without any infrastructure (where the traditional form of community college would have been more appropriate) to moderate and even non-existent in the more affluent areas where ICT infrastructure forms part of daily life and is easily accessible.

5. THE CASE FOR COMMUNITY COLLEGES BASED ON ICT

As intimated, the institution of community colleges that will be able to meet the needs of the NEETS in South Africa should range from the traditional community colleges that serve only the community directly surrounding them geographically, to colleges whose communities might be differently defined. Whatever the nature of the college, it is advisable that all of them offer some or other form of flexible and / or blended learning. The traditional approach to teaching and learning should somehow be combined with electronic and other forms of support (e.g. the use of cell phones and, in particular, short message services). All of them should also offer open learning (i.e. they should allow new students to register at any time and allow students to write examinations whenever they are ready). Distance learning becomes an option if the teaching materials do not require one-on-one tuition or do not involve ponderous and expensive materials such as bricks, woodworking materials or heavy machinery such as lathes, including all seven of the scarce skills listed above. E-learning should have a place in all of them, if only for easy communication between a tutor and his or her students, particularly in the context of distance learning. Mobile learning could be considered for travelling students, and online learning could be considered if the necessary computer infrastructure is available to the student. Virtual learning could be considered in those cases where practical skills have to be practised (e.g., learning how to conduct an interview with a mentee as a future life-coach). Tutors could also consider programmed instruction combined with self-tuition/auto-didacticism/self-directed learning and telematics (cf. Sadler-Smith and Smith 2004, 398).

6. COMMUNITY COLLEGES OPEN DOORS TO THE FUTURE

Community colleges should get their courses accredited via the South African Qualifications Authority and, depending on the course, preferably up to second-year university level. It is envisaged that South African students who have successfully obtained appropriate degrees or qualifications from community colleges would be able to obtain their university degrees after two more years of study. They will have had opportunities to prove themselves capable students, or would at least have mastered particular vocational skills that would allow them to escape the ranks of the NEETS. Experience in the United States of America has proved that community colleges can be highly successful, particularly because of their relatively open access policies (in comparison with, particularly, the elite universities) and the flexibility and range of their mission statements (Chronicle of Higher Education Almanac 2005). They also offer tuition at a much lower cost than universities, making them accessible to students from social categories that are underrepresented at universities (cf. Janis 2013). Although

community colleges in the United States of America accommodate only approximately 38 per cent of all higher education students, this number represents 46 per cent of all students from ethnic minorities (Cohen and Brawer 2008, 52). These colleges are also versatile, as shown by Doerr (2012) in his study of a US community college that helped immigrants to master English and to socialise in the USA while also helping them to become world citizens (imbuing them with so-called global competence) (also cf. Teranishi, Suarez-Orozco and Suarez-Orozco, 2011).

The versatility of these colleges can be deduced from the names given to them in Canada, where the concept of community colleges was introduced in the 1960s from the United States of America: they are referred to as *Colleges of Applied Arts and Technology* (CAATS) and in Quebec as *Collèges d'enseignement general et professional* (Cégeps) (colleges for general and professional education). Approximately 40 per cent of all Canadian higher education students attend these colleges (Raby 2009, 6). These colleges perform a research function and serve as links between the world of education and the world of work.

The Canadian experience shows that community colleges could also help solve the problem of unemployed graduates (cf. Wolhuter 1997; Liu, McCloy and DeCloss 2012, 8). Unemployed university graduates are inclined to attend community colleges to obtain vocational qualifications (Wilson 2009). The fact that higher education in Africa still resembles the inherited models of their 'mother' countries in Europe (where the community college model is not strongly developed) (cf. Collins 2013) might have contributed to the assumption that the community college model is still not widely adopted in Africa.

The creation of community colleges in South Africa could likewise offer a variety of teaching jobs to unemployed graduates. The notion of using community colleges for these purposes has, however, not taken root in South America, apart from Mexico and the Caribbean, probably due to the proximity of these two countries to the United States of America. Mexico's answer to the problems outlined above was the institution of technological universities that offer two-year degree programmes (Laya 2009, 222, 226; Gregorutti 2012, 52). Seventy per cent of the training for such a degree takes place within industry. The explosive growth of these institutions since inception proves that they answer a dire need (Kent, Alvarez, Ramirez and Maarman 2008, 401; Gregorutti 2012, 53). Gregorutti (2012) and Laya's (2009) studies nevertheless show that, despite the successes of these colleges, they have not facilitated the same degree of flow towards universities as has been the case in the United States of America. The reason might be that in Mexico the qualifications offered by these institutions are not accredited by a national qualifications framework. Also, Mexican universities do not have a long-standing tradition of admitting graduates from these institutions with full credit granted for their prior learning.

The system of higher education in Europe, combined with a stagnation in student numbers, makes the introduction of community colleges unnecessary. The higher

education system, based on the Bologna Declaration (1999) and the Lisbon Goals (2000), already provides the functions that community colleges could offer (Trow 2006, 247; UNESCO 2013). Ireland nevertheless boasts with Institutes of Technology (cf. DoBelle and Ingle 2009), and France with *Institutes Universitaires de Technologie,* which are similar to community colleges as discussed above. In the rest of Europe, the various higher education systems cater for all requirements, making the introduction of separate community colleges unnecessary. Some of the colleges in the systems provide two-year vocational courses that grant admission to universities (Pizmony-Levy, Livneh, Elysahiv and Yogev 2012, 184). The introduction of these colleges became necessary because of population growth due to immigration from the erstwhile East Bloc countries (Davidovich, Sinnuany-Stern and Iram 2013, 132; Soen and Davidovich 2004, 445).

Pizmony-Levy and others' (2012) study of community colleges in Israel reveals that community colleges can indeed open doors to categories of people who would otherwise be under-represented at higher education level (also see De Bard and Rice 2009). Whereas women represent only 39 per cent of the student body at universities in Israel, they represent 56 per cent at colleges. Whereas Arabian-ethnic students represent only 0.02 per cent of university students, they represent 0.06 per cent at academic colleges and 0.26 per cent at technological colleges (the equivalent of the community college in Israel).

The experience in East Asia has shown that community colleges can indeed fulfil an important role in opening doors to new opportunities. Countries in that part of the world used these colleges as a means to help them transform and adapt to the West's investment- and innovation-driven economies and industries that they emulated in the shortest time possible. This explains the proliferation of community colleges in the Far East (Lam and Vi 2009, 99; Fleishman en Luo, 2013). Taiwan, for instance, struggled with the problem that graduates were not appropriately skilled for the employment market, and resorted to American-style community colleges (known as community universities) to overcome the predicament (Chen and Wang 2009, 52–3). The overhaul of Vietnam's economy since 1985 has also forced the government to resort to community colleges (UNESCO 2013). Despite strong opposition, community colleges have become a force in Indian higher education as well (since 1996) (Alphonse 2012, 333). These colleges are aimed at helping dropouts, with the assistance of business, industry and the relevant communities, to receive appropriate training and find employment (Alphonse and Valeau 2009, 79). Based on a study in 2010/11, the Indian Centre for Research and Development of Community Education declared that these colleges were doing sterling work with drop-outs, that they were serving as a great social equaliser (88% of the students coming from poor families, and 71% of them female), and that the majority of them (75%) found employment after their studies (Alphonse 2012, 333). The same applies for the entire sub-Saharan region, with the exception of Senegal where regional universities resemble United States of America-style community colleges (Gueye and Sene 2009, 241).

7. DISCUSSION AND RECOMMENDATIONS

International experience, as briefly outlined above, has shown that many countries worldwide have benefited from the introduction and presence of community colleges, namely, institutions that fill the niche between colleges for further education and training and universities. Their open admission policies and the fact that attending them is cheaper than attending universities, have not only made them important social equalisers, but also great contributors to the demand for massification of education. They, furthermore, tend to serve specific communities and allow the private sector to play a significant role in their programme offerings. They have been proven to play a significant role in providing technical and vocational skills for burgeoning economies, and they succeed in catering for the needs of drop-outs and NEETs. Furthermore, international experience has shown that the nexus among communities, the economy and education institutions, can be reinforced by the institution of community colleges in which the state does not play a dominant role and is not prescriptive. The worldwide pattern is that these colleges are autonomous institutions that offer programmes and qualifications at the lower levels of post-secondary school education. In the United States of America, for example, they offer two-year Associate ('A') degrees, whereas, besides Associate degrees, universities also offer four-year Bachelor's ('B') degrees, Masters ('M') degrees and Doctoral degrees.

The situation in South Africa, with on one hand the large number of NEETs who have successfully completed secondary education, and on the other, the existence of a skills shortage, merits the serious consideration of community colleges. Given the South African context, it seems that these colleges might typically be colleges serving particular geographical communities, as well as colleges serving specific differently defined communities with the aid of social communication media and information and computer technology. The introduction of these colleges will help to eradicate the typical African perception that technical and vocational education is, somehow, inferior to academic education (cf. Banya 2010, 18) − a problem that has been exacerbated by the former Technikons becoming Universities of Technology in 2003.

While the gross higher education enrolment ratio in South Africa currently stands at 17 per cent, (which is high in comparison with the rest of sub-Saharan Africa), it is low in comparison with other upper middle-income countries where this figure typically ranges from 35 per cent to 40 per cent and higher (RSA 2012a, 38). Among this 17 per cent the attrition rate is significantly high – only about a third of the students complete their university courses (RSA 2012a, 41). This is a cause for concern, given the current presence of around 2.8 million NEETs. It is little wonder then that the National Development Plan (2011) states in its prologue that democracy cannot flourish in a sea of poverty, that a sustainable growth and development cycle has to be put into place, and that more people have to be placed in permanent jobs (RSA 2011, 2−3; RSA 2012a, x). Although the plan envisages an increase among students at higher education level, from

17 per cent to 30 per cent, it is clear that universities will not be able to accommodate these growing numbers. This underscores the importance of introducing community colleges, which are known to be much cheaper to erect than universities.

A first move has recently been made to institute community colleges, in that 13 further education and training colleges have been selected to offer programmes at National Qualifications Framework level 5 (Wallington 2013). Preparations have also been made for offering Level 6 qualifications at some of these selected colleges (RSA 2013; cf. RSA 2012b). According to a recent report by the Centre for Higher Education and Transformation, around 700 000 students are eligible for these forms of training, and it, therefore, advises that the roles and functions of further education and training colleges should be extended by allowing them to offer certain university courses as well as courses of their own at university level (Cloete and Butler-Adams 2012, 11−13). These initiatives can be supported in view of the special contributions that community colleges can make, as explained above, particularly if they define specific communities that could be reached with modern ICT technology. The transformation of current colleges for further education and training into community colleges could be a viable option, given the fact that colleges for further education and training already have been established country-wide, even in far-flung rural areas.

8. CONCLUDING REMARK

The higher education scene in South Africa seems to justify the notion of introducing community colleges. These colleges have undisputed advantages, *inter alia*, the provision of training to students at higher education level, but at a much reduced cost in comparison with universities; they provide through-flow to universities, they help drop-outs to find vocational niches for themselves, and above all, they enable NEETs to avoid wasting their time, but to obtain training and find meaningful occupations. While the introduction of community colleges in their 'traditional' form can be supported, it has been contended in this article that South Africa needs community colleges in adapted form. This would mean colleges that define the communities that they serve, not only geographically, but also in other terms (e.g. visual). This has become viable due to the arrival of sophisticated teaching and learning technology.

NOTE

1. From a methodological point of view, hermeneutic phenomenology sets out to work empirically inductively-inferentially, even though it essentially remains rooted in ontology.

REFERENCES

Alphonse, S. X. 2012. The Indian community college movement: An overview. In *Community colleges worldwide: Investigating the global phenomenon,* ed. A.W. Wiseman, T. Chase-Mayoral and A. Sachdev. Bingley: Emerald.

Alphonse, S. X. and E. Valeau. 2009. Indian community college system: Democratic response to globalization. In *Community college models: Globalization and higher education reform,* ed. R. L. Raby and E. J. Valeau. Dordrecht: Springer.

Banya, K. 2010. Reflections on polytechnics in post-conflict Sierra-Leone. In *A tribute to David N. Wilson: Clamouring for a better world,* ed. V. Masemann, S. Majhanovich, N. Thruong and K. Janigan. Rotterdam: Sense.

Chen, A. S. and W. Wang, W. 2009. From education to grassroots learning: Towards a civil society through community colleges in Taiwan. In *Community college models: Globalization and higher education reform,* ed. R. L. Raby and E. J. Valeau. Dordrecht: Springer.

Chronicle of Higher Education Almanac. 2005. Students' projected enrolments 2004−2014. Available at http://chronicle.com (accessed 30 June 2010).

Cloete, N. 2013. Mixed signals in post-school. *Mail& Guardian* 15−21 February: 32–33.

Cloete, N. and J. Butler-Adams. 2012. *Responding to the educational needs of post-school youth*. Wynberg: CHET (Centre for Higher Education and Transformation).

Cohen, A. M. and F. B. Brawer. 2008.*The American community college*. San Francisco: Jossey Bass.

Collins, C. 2013. An overview of African higher education and development. In *The development of higher education in Africa: Prospects and challenges,* ed. A. W. Wiseman and C. C. Wolhuter. London: Emerald.

Craig, E. 2005. (Ed.) *The Shorter Routledge Encyclopaedia of Philosophy*. London: Routledge.

Creswell, J. W. and A. L. Garrett. 2008. The 'movement' of mixed methods research and the role of educators. *South African Journal of Education* 28: 321−333.

Davidovich, N., Z. Sinnuany-Stern and Y. Iram. 2013. 'Paradoxes in higher education' universities versus academic colleges. *Research in Comparative and International Education* 8(3): 132−148.

De Bard, R. and T. Rice. 2009. Modeling social justice through the community college. In *Community college models: Globalization and higher education reform*, ed. R. L. Raby and E. J. Valeau. Dordrecht: Springer.

DoBelle, D. C. and S. A. Ingle. 2009. Pathways to participation: A comparative study of community college entrepreneurial educational programs in the United States and Ireland. In *Community college models: Globalization and higher education reform,* ed. R. L. Raby and E. J. Valeau. Dordrecht: Springer.

Doerr, N. M. 2012. Producing American citizens with 'global competence': Internationalization of higher education and the community college's contribution through English as a second language education of adult immigrants. In *Community colleges worldwide: Investigating the global phenomenon,* ed. A. W. Wiseman, T. Chase-Mayoral and A. Sachdev. Bingley: Emerald.

Fleishman, S. S. and Y. Luo. 2013. China's top-up policy and the lot of community college-like institutions in educational expansion. *Research in Comparative and International Education* 8(3): 119−131.

Gregorutti, G. 2012. The Mexican idea of two-year university degrees: A model of opportunities and challenges. In *Community colleges worldwide: Investigating the global phenomenon*, ed. A. W. Wiseman, T. Chase-Mayoral and A. Sachdev. Bingley: Emerald.

Gueye, B. and I. Sene. 2009. A critical approach to the community college model in the global order: The *College Universitaire Régional de Bambey* (Senegal) as a case study. In *Community college models: Globalization and higher education reform,* ed. R. L. Raby and E. J. Valeau. Dordrecht: Springer.

Honderich, T. 2005. (Ed.) *The Oxford companion to philosophy*. 2nd edition. Oxford: University Press.

Jaeger, R. M. 1988. *Complementary methods for research in education*. Washington DC: American Educational Research Association.

Janis, T. 2013. The community college: Bridge or roadblock to higher education for US adult immigrant English-language learners. *Research in Comparative and International Education* 8(2): 149−165.

Kent, R., G. Alvarez, R. Ramirez and R. Maarman. 2008. The education system of Mexico. In *Education systems: Challenges for the 21st century,* ed. H. J. Steyn and C. C. Wolhuter. Noordbrug: Keurkopie.

Lam, D. B. and N. H. Vi. 2009. The development of the community college model in Vietnam at the time of the country's reorganization and international integration. In *Community college models: Globalization and higher education reform,* ed. R. L. Raby and E. J. Valeau. Dordrecht: Springer.

Laya, M. S. 2009. Technological universities: A relevant educational model for Mexico? In *Community college models: Globalization and higher education reform,* ed. R. L. Raby and E. J. Valeau. Dordrecht: Springer.

Liu, S., U. McCloy and L. De Closs. 2012. Early labour market outcomes of Ontario college and university graduates: 1982−2003. Ontario: Higher Education Qualifications Council.

Macey, D. 2001. *The Penguin Dictionary of Critical Theory*. London: Penguin.

Onwuegbuzie, A. J., R. B. Johnson and K. M. T. Collins. 2009. Call for mixed analysis: A philosophical framework for combining qualitative and quantitative approaches. *International Journal of Multiple Research Approaches* 3: 114−139.

Pizmony-Levy, O., R. Livneh, I. Elysahiv and A. Yogev. 2012. The development of two-year technological colleges in Israel and its implications for stratification in higher education. In *Community colleges worldwide: Investigating the global phenomenon,* eds. A. W. Wiseman, T. Chase-Mayoral and A. Sachdev. Bingley: Emerald.

Raby, R. L. 2009. Defining the community college model. In *Community college models: Globalization and higher education reform,* ed. R. L. Raby and E. J. Valeau. Dordrecht: Springer.

Raby, R. L. and E. J. Valeau. 2012. Educational borrowing and the emergence of community college global counterparts. In *Community colleges worldwide: Investigating the global phenomenon,* ed. A. W. Wiseman, T. Chase-Mayoral and A. Sachdev. Bingley: Emerald.

Raby, R. L. and E. J. Valeau. 2013. Community college global counterparts: Historical contexts. *Research in Comparative and International Education* 8(2): 110−118.

Republic of South Africa. 2011. *National development plan: Vision for 2030.* Pretoria: Government Printer.

Republic of South Africa. 2012a. *Green paper for post-school education and training*. Pretoria: Department of Higher Education and Training.

Republic of South Africa. 2012b. *Memorandum for Parliamentary Office, National Assembly. Written reply to question 2143, 17 August 2012.* Cape Town: Parliament.

Republic of South Africa. 2013. *Policy on professional qualifications for lecturers in technical and vocational education and training.* Pretoria: Department of Higher Education and Training.

Republic of South Africa. 2014. *Department of Higher Education and Training Call for Comments on the National Scarce Skills List Top 100 Occupations in Demand.* Pretoria: Department of Higher Education and Training.

Ritchie, J. and J. Lewis. 2003. *Qualitative research practice.* London: Sage.

RSA, see Republic of South Africa.

Sadler-Smith, E. and P. J. Smith. 2004. Strategies for accommodating individuals' styles and preferences in flexible learning programmes. *British Journal of Educational Technology* 35(4): 395−412.

Soen, D. and N. Davidovich. 2004. Centre and periphery in higher education: The case of Israel. *International Education Journal* 5(4): 439−57.

St Clair, R. 2005. Similarity and super-unknowns: An essay on the challenges of educational research. *Harvard Educational Review* 75(4): 435−453.

Teranishi, R. T., C. Suarez-Orozco and M. S. Suarez-Orozco. 2011. Immigrants in community colleges. *Future Child* 21(1): 153−169.

Trow, M. 2006. Reflections on the transition from elite to mass to universal access: Forms and phases of higher education in modern societies since WWII. In *International handbook of higher education,* ed. J. J. F. Forest and P. G. Altbach. Dordrecht: Springer.

UNESCO. 2013. *UNESCO Statistics.* Available at www.uis.unesco.org (accessed 23 February 2012).

Wallington, R. 2013. Personal discussion with Human Resources Manager, Vusilela Further Education and Training College, Klerksdorp.

Wilson, D. N. 2009. 'Reverse transfer' constraints upon planning post-secondary programs in Ontario, Canada. In *Community college models: Globalization and higher education reform,* ed. R. L. Raby and E. J. Valeau. Dordrecht: Springer.

Wiseman, A. W. and A. Chase-Mayoral. 2013. Transitioning roles of post-secondary education and community colleges worldwide. *Research in Comparative and International Education* 8(2): 102−109.

Wolhuter, C. C. 1997. Classification of national education systems: A multivariate approach. *Comparative Education Review* 41(2): 161−77.

Wolhuter, C. C. 2011. Community colleges in South Africa: Assessment of potential from comparative international perspectives? *South African Journal of Higher Education* 25(6): 1205−1218.