What are the barriers and prospects for integrating environmental sustainability into the curriculum?

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Abstract

This study attempts to investigate the extent to which environmental sustainability has been integrated into the curriculum of the Humanities Faculty at Rhodes University as well as the barriers and prospects for further integration. This thesis argues that the integration of environmental sustainability has been very limited. The three main components of environmental sustainability, namely environmental content, interdisciplinarity and participatory curriculum formation, are all lacking in most departments' curricula. This is despite all departments' affirmation that environmental issues are among the most critical problems the world faces today. Most of the departments are arguably only paying lip-service to environmental issues while making little to no effort toward integrating the environment into their curriculum. A lack of space in the curriculum is a frequently suggested barrier to introducing environmental sustainability into a course. However, this thesis argues that the environmentally conscious transformation of a curriculum cannot be achieved simply by adding content to the existing syllabus, but requires a restructuring of the curriculum itself. Many of the other barriers found by this study can be overcome through sufficient will on the part of departments to change their curricula. However, generating this will is difficult, as students are not ostensibly interested in environmental concerns. It is then incumbent on the lecturers themselves to educate the students on critical environmental issues, as well as on students to urge their lecturers to bring about change.

DEDICATED

TO

My Family

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Contents

Chapter 1 Introduction

Since 1987, environmental challenges have come to the fore of international and national policy because of their wide-ranging negative implications for the long-term economic and social well-being of states (World Commission, 1987: 16). These negative implications include widespread environmental destruction, deforestation, loss of biodiversity, global warming, loss of habitat and pollution (Curry, 2006: 14-18). The significance of the environment and the sustainable use thereof has consequently become a major issue for many institutions including government and the business and education sectors (Palmer, 2001: 35). This concern is clearly evidenced by the many United Nations Climate Change Conference (COP) meetings being held, culminating most recently in the Paris Climate Agreement signed in late 2015.

Curry (2006: 4) argues that the environmental crisis the planet is facing is not only caused by the structural economic processes that exploit natural resources, but also by how we ethically value the environment. If the environment was valued more highly, the damaging exploitation of resources would be more difficult to justify. Curry suggests that what is needed is not only a reevaluation of the economic structures, but also a reevaluation of how we engage with and relate to the environment (2006: 5).

An attempt at such reevaluation was the concept of sustainable development (SD). SD endeavoured to deal with environmental issues while not harming the economy. The commonly accepted definition of SD was first proposed by the Bruntland Commission in the

report *Our Common Future* as "[meeting] the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission, 1987: 16). The principles of SD were further expounded in the Rio Declaration made at the United Nations Conference on Environment and Development (UNCED) in 1992 in which 172 governments and hundreds of non-governmental organisations participated (United Nations, 1992).

Many of the principles in the Rio Declaration on Environment and Development reflect attempts at balancing the need for development, on the one hand, and environmental protection, on the other. For instance, Principle 3 records that the "right to development must be fulfilled" while Principle 4 records that "environmental protection shall constitute an integral part of the development process" (UNCED, 1992: 1).

SD was so widely accepted by the states and institutions involved in the UNCED that the Decade for Sustainable Development (DESD) was announced in 2004 by the United Nations (United Nations, 2005). Education for Sustainable Development (ESD) became a term for a "broad coalition of environmental, developmental, human rights, peace and social justice educators" to join together in an attempt to help resolve various environmental problems (Selby, 2008: 62). However, critics argue that the demand for development has outweighed the need to protect the environment (Rees, 2008: 665). The formulation and critiques of SD will be discussed in further detail in Chapter 2.

Development has historically occurred through the exploitation of natural resources, with extraction processes frequently damaging the environment. An obvious example is the lumber industry. Resource extraction can also lead to loss of livelihood for those who survive off of what the forest provides. However, the exporting of the lumber from majority world countries (formerly called developing or third world countries) provides these countries with much needed funds that can then be spent on building schools, hospitals and other infrastructure. Majority world countries are particularly vulnerable to environmental change and degradation because these states lack the capability of protecting their poorest citizens who are often the most directly reliant on the environment for their livelihoods. Majority world countries are then faced with the difficulty of endeavouring to protect the environment while at the same time having to utilise the environment (with damaging consequences) in order to develop.

South Africa is a majority world country that confronts this exact question. It is classified as a water-scarce country and is currently facing a massive drought (Essa, 2015: 1). It also has to deal with toxic runoff from the mining industry that pollutes water sources (Greenpeace, 2011). South African law acknowledges that the country faces significant environmental challenges, with national legislation and the constitution frequently referring to SD (National Environmental Management Act, 1998: 3). Examples are Section 24 of the Constitution of the Republic of South Africa Act No. 108 of 1996, and the National Environmental Management Act No. 107 of 1998, both of which speak about the need to develop sustainably to benefit all people in society and protect the environment.

On the other hand, South Africa faces pressure to develop economically in order to alleviate poverty and inequality, the severity of which remains broadly reflective of apartheid conditions. The pressures to lower inequality through economic development and deal with broader transformational issues may therefore lead government to shift its focus away from environmental issues. However, the environmental challenges faced by South Africa do not occur in isolation; they are linked directly to broader transformation and economic development. This is the case when environmental concerns have a direct impact on people's lives and vice versa. The drought, for example, is affecting millions in Southern Africa and could lead to widespread starvation (Essa, 2015: 1). If environmental sustainability (ES) is seen by the South African government as a separate issue and not as part of the broader transformation agenda, it may not be at the forefront of government concerns.

Makana Municipality in the Eastern Cape, where Rhodes University (RU) is located, is a typical example of the aforementioned governmental conflict of interest. This municipality experiences a demand for both economic development and environmental protection while having to advance broader transformation goals. After the fall of the apartheid government, the Eastern Cape incorporated the Transkei and Ciskei, notionally separate 'homelands' created by the apartheid government, thus inheriting the economic and social problems that arose from the creation of these 'homelands'. Partly because of this, the Eastern Cape has struggled with economic growth, development and many other social issues, and remains one of the poorest provinces in the country. The official unemployment rate stands

at 29.1% (Stats SA, 2011), the second highest in South Africa, and in 2015 the province had the lowest matriculant pass rate in the country at 56.8% (SABC, 2016).

Makana Municipality has an even higher official unemployment rate of 32.5%. The municipality of which Grahamstown is the capital city also confronts regular environmental stress from periodic droughts and crumbling infrastructure which leave parts of the city, generally the poorer sections, without water for weeks on end (O'Keeffe, 2010). The water shortages show that Grahamstown faces a major environmental challenge that directly affects the wellbeing of the inhabitants. As the education sector is one of the main economic drivers in the city, it is crucial for RU to ensure long-term water sustainability for its own students as well as other Grahamstown residents. By using its power and influence, the university could arguably play a leading role in many of the challenges Grahamstown faces - including the environmental crisis.

Brennan et al. argue that higher education institutions (HEIs) can play a role in both the transformation and reinforcement of societal structures (2004: 55). A study conducted in South Africa and 16 other majority world countries whose rapid transformations were largely instigated by political change indicated that HEIs are helpful in transforming their societies through the creation of a "protected space" in which individuals can be critical of the government (Brennan et al., 2004: 7, 56). The same study also found that HEIs are equally capable of preventing transformation through the reproduction of societal norms by means of education. The authors argue that, given their individual contexts, it is for the HEIs themselves to decide which path to follow (Brennan et al., 2004: 56).

HEIs themselves have argued that they can and should play a role in the transformation of societies. There have been a number of key declarations signed by HEIs over the past few decades that focus on the role of HEIs in society, specifically with regard to the environment. For example, the Tbilisi Declaration (1977), Talloires Declaration (1990) and Thessaloniki Declaration (1998) argue that universities have a leading role to play in tackling prevailing environmental challenges, particularly in educating people about the importance of the environment and the adverse impacts of its deterioration on societal security and stability (Gyan, 2005: 34-37; Palmer, 2001: 8; Tbilisi, 1997). These declarations also indicate that universities should take action to reduce pollution and environmental degradation and that ES must be integral to a holistic restructuring of curricula as part of the restructuring of the way students think about and interact with the environment (Talloires, 1990; Thessaloniki, 1998).

ES is one possible means through which HEIs can transform their curricula and produce citizens with a greater understanding of sustainability issues and the processes required to alleviate them. With SD being critiqued for being too focused on economic development, ES has become a popular concept as it moves the emphasis away from economic development and towards the sustainability of the environment (Selby, 2008: 64). It does this by focusing not only on environmental content but also on the interdisciplinary approaches required to address diverse environmental concerns. ES also demands participatory curriculum formation which empowers students to rethink their engagement with environmental education.

Because environmental issues are complex and wide-ranging, they cannot simply be compartmentalised into a single discipline. ES must therefore "be of an interdisciplinary, systemic and holistic nature" (Lotz-Sisitka, 2004: 1; Wals & Jickling, 2002: 127; Wright, 2002: 118). This systemic and holistic approach can then potentially look at how the most vulnerable in society are frequently the most directly reliant on the environment for survival. The human aspect can thus be brought into the discussion around the environment, and the ways in which different groups of people interact with and are reliant on the environment can be addressed. Interdisciplinarity therefore allows for a diversity of issues to be considered. A much broader view must be taken in order for students to fully understand and contextualise all relevant aspects of any environmental issues being analysed.

The participatory component of ES is advocated by Wals and Jickling (2002: 124). They argue that ES is aligned to an open, democratic and emancipatory process in which students and academics should have an equal voice through shared discussions and decision making processes. The discussion process should include environmental education as well as the intended meaning of sustainability in policy formulation and its implementation. This discussion-orientated process also includes feedback mechanisms through which staff and students are able to reflect on curricula as well as policies and their application. This discussion practice and the equal influence of all involved parties is arguably an empowering experience for students and staff alike. Students will potentially enter the workplace, whether in the private or public sector, with sufficient knowledge of and insight into the

processes essential in addressing the various environmental challenges faced by society (Wals & Jickling, 2002: 124-126).

ES can arguably be significantly beneficial to all South African HEIs by assisting them in confronting the many pressures the country is facing. It can change the way people think about their roles in the country and what they can do to solve its various problems. The focus on environmental concerns will therefore contribute to the importance of other problems rather than subtracting from it. RU is a particularly important university in this regard because it is located in the Eastern Cape, a province whose social and economic indicators are lower than average in South Africa. If RU can successfully address the pressures it faces locally, it would be a significant example for other South African HEIs and, potentially, South African society as a whole.

ES is arguably fundamental to rethinking and reshaping the way people think about and interact with the environment as well as understanding the processes that lead to environmental destruction. RU has twice committed itself to ES in the curriculum (Rhodes Environmental Policy, 1998: 3; Environmental Sustainability Policy, 2015: 1), and this thesis will critically assess the extent to which these policies have been taken into account by the Humanities Faculty at RU. The Humanities Faculty is the focus because the humanities are not frequently associated with environmental issues, notwithstanding the fact that human needs are fundamentally and inextricably tied to the environment. Through interviews with various heads of departments (HODs), management personnel and lecturers, this thesis will determine how much ES has been integrated into the Humanities Faculty and what barriers

and prospects further integration faces. It will argue that while there are many barriers remaining, they can be overcome if students are informed and willing to exert sufficient pressure on faculty, and if faculty, in turn, is able and willing to introduce the necessary changes in curricula.

Chapter 2 of this thesis will examine the critiques of SD to make the argument that ES is a solution to SD's developmental bias. It will further examine the role of the university in transforming societies and whether ES can be a potential guideline for curriculum transformation at South African HEIs.

Chapter 3 examines the broader South African context with regard to ES on a governmental level in order to determine how seriously environmental concerns are taken at national level while balancing economic development and dealing with broader transformation. This will provide greater detail around the pressures faced by South Africa and its HEIs.

Chapter 4 will asses the extent of ES integration in the curricula of the RU Humanities Faculty by analysing interviews conducted with the heads of the department, management staff and lecturers.

Chapter 6 examines the barriers discovered through the interviews that currently impede the integration of ES into the curricula of the Humanities Faculty. It will further examine how these barriers may be overcome and what prospects there are for further integration of ES.

Chapter 7 examines what steps might be taken to both broaden and deepen this research at RU as well as other universities in South Africa. The extent of ES integration at other faculties can be assessed along with the barriers they face against further integration and what these faculties are doing or have done to overcome them.

Chapter 2 Environmental Sustainability in the Curriculum

Introduction

Due to the growing awareness of the harmful impact of human activities on the environment, environmentalists have called for restrictions on industry and economic development through growth as these are considered causes of environmental degradation. However, many majority world countries view development through growth as the only means to increase their own human development and lift their people out of poverty. Sustainable development (SD) was proposed as a way to address the developmental needs of the majority world while preventing environmental degradation from continuing. The main document detailing SD, the Rio Declaration on Environment and Development, was signed by over 170 countries in 1992 and quickly became widespread with Education for Sustainable Development (ESD) entering into the higher education sphere.

However, SD soon came under criticism. Critics argued that the principles in the Rio Declaration showed a bias towards developmental concerns over environmental ones and that this resulted in a tendency towards sacrificing environmental protection measures for developmental progress (Rees, 2008: 665). Attempts were therefore made by environmentalists to move away from SD to a framework with a closer focus on the environment. Environmental sustainability (ES) is a potential solution to the flaws of SD through an increased environmental focus if it is integrated sufficiently into curricula. The components that comprise an ES curriculum, namely participatory curriculum formation,

interdisciplinary work and environmental content, allow for a greater focus on the environment while at the same time facilitating a more holistic approach to understanding both our reliance and impact on the environment (Wright, 2002: 118; Miller 2008: 82; Orr, 1994: 12).

Although development in the form of capitalist market expansion was considered to be detrimental to the environment, such development was also seen as the way for majority world countries to develop and uplift their people out of poverty. SD was created as a way to balance the desire for development and the need to protect the environment. The most well-known and often-used definition of SD was detailed in the report *Our Common Future* by the Bruntland Commission in 1987 as "[meeting] the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission, 1987: 16). This effectively dictated that the current generation could not degrade the resources of the planet to such a degree that future generations would have no resources to survive on while at the same time making sure that the current generation was not sacrificed for the needs of future generations. This first and most common definition was arguably the critical flaw in SD as it did not even contain the word 'environment', suggesting that the environment was not its primary concern.

The primary principles of SD were detailed at the 1992 United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro. Principle 1 of the Rio Declaration on Environment and Development states that "[h]uman beings are at the centre of concern for sustainable development" (UNCED, 1992: 1). Principle 3 says that the "right

to development must be fulfilled", while Principle 4 states that "environmental protection shall constitute an integral part of the development process" (UNCED, 1992: 1).

Critics have argued that these principles have a bias towards development over environment as environmental protection is seen as only a secondary part of economic development (Rees, 2008: 665; La Grange, 2011: 743). Furthermore, it is claimed the Bruntland Commission arguments do not provide for the deep and enduring changes which are needed for SD to be substantially different from the development discourse that has resulted in much of the environmental destruction seen today (Hove, 2004: 49). The commission, critics continue, is vague and fails to examine the underlying causes of the environmental degradation. The commission identifies unequal development of capitalist growth as a cause, but goes on to argue that more growth, though of a different quality, is the solution (Hove, 2004: 49). This is simply a "modification of business as usual" which does not go far enough to address the issue (Middleton et al., 1993 in Hove, 2004: 49; La Grange, 2011: 743). By failing to acknowledge that capitalist market expansion is an underlying cause of environmental degradation, and further advocating its continued growth, SD fails to resolve the conflict of interest which exists between the market and the environment, critics maintain (Hove, 2004: 51).

Though the principles of the Rio Declaration attempt to balance the need for economic development and environmental protection by making the latter a subset of the former (UNCED, 1992: 1), critics argue that the declaration allows justification of continued environmental exploitation under the guise of sustainability without effectively considering the environment (Rees, 2008: 665; Selby, 2008: 64). Since economic development is

frequently justified through the lens of increasing the standard of living for humans, this creates a clash between what is good for humans (economic development) and what is good for the environment. Critics argue that economic development is then often chosen over environmental protection in order to uplift humanity's standard of living (Rees, 2008: 665; Selby, 2008: 63). Development does not, however, necessarily have to come at the expense of the environment, and environmental protection does not necessarily have to result in a lack of economic and human development. Selby argues that alternatives to development (like steady-state or low-growth economies) are not discussed; instead, alternatives within the prevalent concept of development are offered (2008: 63). SD essentially fails to examine and correct the underlying causes of environmental degradation and calls for the continuation of practices which are at fault. This has allowed for environmental exploitation to continue under the guise of sustainability.

ES has therefore been proposed as a way to counter the flaws in SD (Selby, 2008: 64). Though definitions of ES are varied (Lotz-Sisitka & Raven, 2004: 69), there is a broad consensus as to what the necessary components of ES in a curriculum are. In order for ES to be integrated successfully into a curriculum, it must "be of an interdisciplinary, systemic and holistic nature", have a large environmental component in the curriculum and be participatory (Wals & Jickling, 2002: 124, 127; Wright, 2002: 118; Lotz-Sisitka, 2004: 1; Miller, 2008: 82; Orr, 1994: 12). These three components, it is argued, allow ES to better transform curricula and empower students to transform their societies.

In order to counter the critiques that SD is overly focused on development at the expense of the environment, an increased focus on the environment and environmental

courses may be necessary. Miller (2008: 82) and Orr (1994: 12) argue that the environment should be the basis for the development of all curricula in higher education institutions (HEIs) across faculties. They argue that the environment is the most fundamental level of interaction as all life is dependent on it; humanity cannot exist in a vacuum and is reliant on the environment to survive.

Miller (2008: 82) and Wright (2002: 118) argue that environmental sustainability can be best achieved by integrating environmental issues into university courses. These courses can examine the broad variety of environmental concerns such as climate change, environmental degradation, environmental racism and injustice at global, national and local levels and their effects on society. Courses of this kind can examine the processes that underlie and cause the many environmental problems the world faces as well as other problems which students face in their local communities. The courses can offer a more meaningful examination of the issues than simply offering up a binary choice of environmental preservation versus development through natural resource extraction and the need to "balance" the two that SD argues for. This deeper understanding helps citizens make judgements with both broader and deeper understandings of sustainability issues for the future (Blewitt, 2004: 3).

Simply adding an environmental course into a curriculum, however, is insufficient. Having one course that deals with the environment out of ten in a student's year does not place sufficient emphasis on the environment and its importance. A limited approach allows departments simply to 'greenwash' their curricula (Wright, 2002: 114-115). A department might then claim to have integrated ES successfully because it now presents an

environmental course. Environmental issues are too broad and complex for one, two or even three environmental courses to fully address the "interdisciplinary, systemic and holistic nature" that is called for in ES. Miller, Wright and Orr argue that greater depth and breadth are necessary to fully deal with environmental issues.

Interdisciplinarity offers the requisite depth and breadth required for environmental issues. The environment is so broad and complex that it arguably cannot be contained in a single department or discipline. Multiple viewpoints are necessary to grasp its complexity and how humans affect the environment and vice versa. Different groups in society are also affected by and reliant on the environment in different ways. Logging, for example, may create convenient furniture for some while destroying the livelihoods of those who rely on the forest for survival. Interdisciplinarity will demand that students reflect on their own lifestyle choices more critically. A student sitting at a desk using a laptop is just as reliant on their environment as a rural villager who is chopping wood to make a fire. Both are using their environment, but in different ways. Different viewpoints and arguments will enrich students' knowledge and understanding of the environment. Through its broad perspectives, ES can therefore teach students and academics how to improve their interaction with the environment while at university and later when entering the workplace.

Interdisciplinarity also allows courses to focus on issues that may not have a strict environmental link. The interdisciplinary nature of ES potentially allows for different issues to be discussed and connections to be made between discrete issues and the environment. Societies around the world are affected by racism, classism, sexism and environmental

exploitation to varying degrees. Interdisciplinarity allows for the connections of discrimination, exploitation and the environment to be made because of its broad reach. An approach of this kind arguably enables students to formulate wide-ranging but context-specific understandings and solutions to a variety of interrelated social, economic, political and environmental challenges (Barth et al., 2007: 418). The participatory component of ES further deepens context-specific understandings and provides a useful set of tools to deal with these challenges.

Wals and Jickling argue that environmental transformation can be understood along a spectrum (2002: 124). On the one end there is eco-totalitarianism and on the other there is emancipatory sustainability. In eco-totalitarianism, the government or the administration of an HEI decides what it means to be sustainable and then enforces their understanding on faculties and students (Wals & Jickling, 2002: 124). However, it is not desirable for environmental sustainability to be imposed in a top-down manner as this can lead to an approach in terms of which discussion is omitted and replaced by whatever those at the top correctly or incorrectly believe sustainability to mean (Wals & Jickling, 2002: 124, 125).

Buy-in from the staff and students may not be present if they are simply instructed what to do without consultation. Policies may then not be implemented fully, or even at all, with the result that ES is not fully integrated into the curriculum. To secure buy-in and cooperation, staff and students should be involved and consulted in deciding what it means to be sustainable and what can realistically be achieved in the context of their specific HEI (Wals & Jickling, 2002: 126).

A structure imposed from above, moreover, is detrimental to the emancipatory element of ES; it does not allow for the empowering nature of a discussion process and therefore limits the rethinking that Curry argues is required to deal with the environmental crisis. When simply telling students what it means to act sustainably, they are not empowered to think critically about sustainability. They are then more likely later to accept what is understood to be sustainable in the workplace, even if it is incorrect. This form of sustainability can then continue to have negative effects on the environment. Degradation of ecosystems will continue if incorrect notions of 'sustainability' are taught and practised. The environment will continue to suffer along with the humans that rely on it. The rethinking of the system that Curry advocates is necessary will then not take place.

Participatory methods are important because they contest the standard production of knowledge at HEIs. Students themselves are integral to the production of knowledge and understanding which is not held solely by the lecturers, departments or faculties. This enhances emancipation because students are empowered to examine the relevant criteria and make proposals about how to limit environmental degradation.

A discussion process would also ensure that curricula are not fixed once decided upon and implemented. Curricula would be flexible, open to interpretation and constantly evolving as the understanding by students and academics of what it means to be sustainable evolves (La Grange, 2011: 746). How exactly the democratic and participatory feedback loop would evolve and operate would thus be dependent on the individual faculties and departments. However, a discussion process does not completely exclude policy

frameworks, as guidelines are necessary to ensure that departments implement the necessary participatory feedback structures (Wals & Jickling, 2002: 125).

How to approach more participatory curriculum formation if students have no interest in environmental content is a difficult problem. If the environmental content and interdisciplinary components are taken seriously, however, then the links between the environment and human activities should become clear. It is perhaps best left to those involved in each context-specific situation to determine what the best approach for them would be. This will be discussed in Chapter 5 with regard to the specific context of RU.

Despite the consensus on components, ES has some definitional difficulties of its own. However, part of the process of ES is developing a definition through participatory methods. Questions about what ES entails and what it means to be sustainable should not be imposed by the lecturers on the students, but come about through an organic discussion process between the two parties. This flexibility would allow ES to be context-specific. For instance, what is appropriate in Grahamstown may not be appropriate in New York or Baghdad. It is up to specific groups, through a process of mutual learning and understanding, to formulate their own definitions of ES which may then evolve over time (La Grange, 2011: 748-750).

This thesis therefore does not have a concrete definition of sustainability, as it has argued that it is undesirable to impose one into differing contexts. However, in broad terms, the sustainable use of the environment can be defined along similar lines as the definition

set out by the Rio Declaration, i.e. the use of the environment to meet today's needs without compromising the needs of future generations. This is an extremely broad definition and every context needs only to take it into account when developing their own interpretation of what it means to be sustainable in an environmental context.

If ES can be successfully integrated into the curricula at HEIs, students, upon leaving an HEI, will arguably be empowered to go on to transform their societies' interaction with the environment. HEIs themselves acknowledge that they can and should play a leading role in integrating ES into curricula (Thessaloniki, 1998) and that this will lead to transformation in society.

Many HEIs around the world have signed onto international declarations such as the Talloires Declaration. This declaration states that HEIs should "educate for environmentally responsible citizenship" (Talloires, 1990) and that this will produce citizens that are "environmentally literate and have the awareness and understanding to be ecologically aware citizens" (Talloires, 1990). Through educating people about the impacts of environmental exploitation, the Tbilisi Declaration (1977) and the Thessaloniki Declaration (1998) state that HEIs have to play a major role in solving environmental problems. The Thessaloniki Declaration states that a restructuring of curricula along ES lines will lead students to rethink the way in which they and society as a whole interact with the environment. The appropriate restructuring of curricula by HEIs arguably leads to a restructuring of the societies in which they operate.

Gough and Scott argue that there is a consensus that higher education "is likely to be influential in the creation and maintenance of both a free society and sustainable

development" (2007: 1). They argue that there are two ways in which this is viewed. The first is that universities provide the skills necessary for the successful functioning of future societies (Gough & Scott, 2011: i). In the age of climate change and environmental degradation, universities would therefore need to provide the skills necessary to prevent or mitigate the destruction. The second is that universities have an obligation to improve society. An example of this would be pushing for sustainable policies at global, national and local levels (Gough & Scott 2007: ii). These policies and their contexts are discussed in Chapter 3. Though Gough and Scott use the now out of favour term 'sustainable development', they are not necessarily referring to the development-heavy definition, but rather to sustainability in general. Such terms of frequently used interchangeably (La Grange, 2011: 1).

A study by Brennan et al. (2004: 55) of HEIs in 17 majority world countries appears to lend support for the claim that HEIs can play a role in transforming their societies. However, the same study also indicates that HEIs can play a strong role in negatively entrenching societies' regressive behaviour (Brennan et al., 2004: 55). The study examines HEIs in the 17 majority world countries that are undergoing political, economic or social transformation (Brennan et al., 2004: 7). It argues that HEIs are capable of reproducing societal norms through education, thus enforcing structures of the society by producing students that have been educated to promote and accept current societal structures (Brennan et al., 2004: 56).

In the context of this thesis, these students would enter the workplace without a deep, broad and critical understanding of the kind of sustainability which ES promotes.

These students would reinforce the structures, approaches and thought processes that Curry argues are the cause of the environmental crises. By replicating existing societal norms, HEIs would simply reinforce the destructive practices of society.

As indicated earlier, however, Brennan et al. do argue that many HEIs have played a positive role in transforming their societies(. Frequently this is done by means of a "protected space" (Brennan et al, 2004: 55, 56). Through this space, HEIs can allow individuals to be critical of ruling government policies and create debate about the path society is following (Brennan et al., 2004: 56). Part of this debate can be about what should be taught at HEIs. If the government is not sufficiently discharging its duties and obligations in some respect, HEIs can educate citizens who will then be sufficiently informed to either exert pressure on government to transform or even to transform society themselves.

Rhodes University (RU) is a signatory to the Talloires Declaration. Both its old and new environmental policies speak about the need to integrate ES into the curricula. From this evidence, RU must believe that it is producing citizens who are "environmentally literate and have an awareness and understanding to be ecologically aware citizens" (Talloires, 1990). RU must therefore also believe that ES is the means by which to achieve this and that RU as a HEI can transform society. The students leaving RU can therefore take their knowledge of sustainability and use it to prevent further environmental degradation. They can implement policies and practices that ensure the preservation of the environment for future generations while using the environment for current needs. To what degree, then, is ES integrated into the curricula at RU? What is RU doing to entrench or change South African societal norms through its curricula? Have serious steps been taken to integrate ES

into the curricula? In order to adequately answer these questions, a deeper understanding of the challenges faced by South Africa and RU's position in South Africa is required. This will be dealt with in the following chapter.

Conclusion

This chapter has argued that SD has been found wanting in its attempts to balance economic development through growth and preventing further environmental degradation. It has argued that SD favours economic development and that in practice the environment has been sacrificed (Rees, 2008: 665; Selby, 2008: 63). ES can be the potential solution to the flaws of SD. If implemented fully into curricula, this could potentially transform society, as well as the environment and use thereof, for the better. HEIs maintain that they themselves can play a significant role in the creation of citizens who are environmentally literate and can bring this knowledge to the workplace and government to transform the practices of business and government to be more environmentally sustainable. They can further push for more policies that would promote ES at all levels of society.

ES in curricula would encourage context-specific solutions to be discussed, understood and implemented through its participatory curriculum formation processes. These same processes would allow for a balance of what the students and lecturers feel is important. Interdisciplinary courses allow for environmental problems to be examined from a multitude of perspectives, particularly how human activity is interconnected with and reliant on the environment. ES can potentially overcome the false binary choice between humans and the environment, critically examine the underlying causes of environmental

destruction, and produce environmentally literate citizens who are empowered in turn to transform their societies in a multitude of ways.

Chapter 3 Environmental Policies in South Africa

Introduction

For a better understanding of the context within which the Humanities Faculty operates at Rhodes University (RU) and the pressures faced by the university and faculty, a more comprehensive contextualisation of the environmental challenges confronting South Africa is required. That, in turn, requires a brief examination of contemporary South Africa. This chapter will briefly summarise the situation confronting contemporary South Africa, specifically focusing on environmental matters and the pressures that may detract from environmental transformation on national, local and HEI levels.

South Africa is endeavouring to position itself as an international player on matters of the environment. There are, however, domestic contradictions to this environmental positioning, both in terms of carbon emissions and 'fracking'. Furthermore, South Africa faces many other significant challenges besides environmental transformation. As one of the most socio-economically unequal countries in the world, there is significant pressure to develop economically in order to alleviate widespread poverty. Service delivery protests are a frequent occurrence in poorer areas as people demand improvements in basic living conditions. Widespread protests have broken out at universities around the country calling for a decrease in fees and the decolonisation of the curricula.

The many challenges confronting South Africa are complex. It is precisely because of these challenges that having environmental sustainability (ES) in the curricula could be helpful. This thesis argues that ES has the potential to assist higher education institutions

(HEIs) in training and empowering students to examine challenges holistically and find context-specific solutions. ES at RU in particular might prove to be crucial; RU is facing its own set of intense transformational challenges in an environmentally stressed region. The challenges confronting RU are reflective of those confronting South Africa at a national level. RU potentially offers examples – and solutions – to the challenges confronting South African HEIs and the country as a whole.

South Africa is a majority world country that, on a national level, has attempted to position itself on the global stage as an environmentally friendly country (Death, 2014: 1). South Africa hosted the 17th United Nations Framework Convention on Climate Change (COP17) in Durban in 2011. It was also a leader of the majority world states at the Paris Convention in 2015. At a national level, there is extensive legislation dealing with environmental matters. Section 24 of the Constitution of South Africa stipulates that everyone has a right to an environment that is "[not] harmful to their health or well-being", to have the environment protected for future generations and to "secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development". Section 24 also calls for the prevention of pollution and environmental degradation and for the promotion of conservation (Constitution of the Republic of South Africa, 1996).

Like the constitution, the National Environmental Management Act (1998) also calls for ecologically sustainable development in South Africa, demanding that "[d]evelopment must be socially, environmentally and economically sustainable" and that environmental management must place "people and their needs at the forefront of its concern and serve

their physical, psychological, developmental, cultural and social interests equitably" (National Environmental Management Act, 1998: 4). The act itself makes no mention of HEIs, their role in environmental management or the education of citizens on how to create a greener economy. It does, however, say that the act applies to all "organs of the state that may significantly affect the environment" (National Environmental Management Act, 1998: 4). It is uncertain whether HEIs may rightfully be included amongst organs of state. This lack of recognition of the role of HEIs in environmental matters is reflected in other government publications. The legislation fails to recognise the full potential which HEIs may play in environmental education.

The Green Paper for Post-School Education and Training published in 2012 does mention the environment, but only in the context of HEIs receiving funding from private institutions to conduct further research in certain areas; one of these areas being the environment (Green Paper, 2012: 6). It encourages this form of private funding, but other than that there is no mention of either the environment or ES.

The subsequent White Paper for Post-School Education and Training, published in 2013, omitted reference to private funding of research in environmental areas. Sustainable development (SD) is mentioned, but only with reference to the challenges the globalised world is facing (White Paper, 2013: 40). It makes no mention of how HEIs might assist in dealing with the environmental and environmentally related challenges confronting the world. No mention is made of educating citizens in either ES or SD with a view to preventing environmental degradation.

However, the National Development Plan emphasises the need to train citizens to adapt to a low-carbon economy (Executive Summary, 2012: 297, 317). How successfully this has been implemented, however, remains unclear. Despite its international positioning, South Africa does not appear to be making significant progress at domestic level in environmental matters. If South Africa is serious about making changes domestically and promoting these changes internationally, then self-evidently HEIs should play an important role in achieving those changes. However, there is little or no legislation promulgated by government which might encourage HEIs to train citizens for the low-carbon economy that the NDP envisions.

At the end of 2015, country-wide protests at HEIs demanded from government free education, transformation of the curricula and an end to the outsourcing of workers at HEIs. Government has agreed to a fee increase freeze and many HEIs have agreed in principle to end the outsourcing of workers, but this has continued into 2016 despite ongoing protests. There is consequently significant pressure on government to increase funding to HEIs. In light of these real challenges confronting government, it seems unlikely that the potential role for HEIs in training citizens for a low-carbon economy will be at the forefront of government concerns regarding HEIs at the present time. The demands from students are not directed at environmental issues and therefore the government's thinking on the matter is unlikely to change.

Contradictions emerge if one examines South Africa's domestic approach to its international positioning. Though some investment has been made in renewable energy, the country remains the world's 15th biggest carbon emissions producer and continues to build

coal-powered stations. Fracking remains highly attractive to government. Moreover, government has recently announced a tender to increase the energy generated by nuclear power plants to 12.7% of the national whole by 2030.

The challenges confronting the government appear to be directing it away from creating an environmentally sustainable economy. South Africa faces pressure to develop economically in order to alleviate poverty and realise human development as it is frequently cited as having one of the highest inequality rates in the world as well as an unemployment rate fluctuating around 35% if discouraged job seekers are taken into account (Keeton, 2014: 1). As stated above, the pressure to develop may have a detrimental effect on environmental concerns (Selby, 2008: 64). South Africa must also deal with transformational issues such as race, class, gender and sexuality discrimination after centuries of colonial and apartheid rule. The inequality levels still largely reflect racial patterns during apartheid (Seekings, Nattrass, 2008: 175) and South Africa has some of the highest rape statistics in the world (ABC News, 2015).

South African HEIs face pressures to transform along racial and class lines and operate in this context. Although they acknowledge that the environment is a point of concern in South Africa and around the world, and widespread global attention is afforded to climate change and environmental destruction, very few South African HEIs have an environmental policy. Furthermore, when such policies do exist, they are concerned with the narrow issue of making the campus sustainable rather than incorporating environmental content into curricula. For example, the University of Cape Town has no less than five environmental policy documents, but in all of their content there are only two references to

integrating environmental content into the curricula (ISCN/GULF, 2012: 1; UCT Environmental Policy, 2003: 1). Only one line of the University of Kwa-Zulu Natals Environmental Policy states that environmental research should be encouraged, with no further detail or guidelines as to how this should be achieved other than stating without detail that the research could be interdisciplinary (UKZN Environmental Policy, 2015: 1).

RU is a signatory to the Tailloires Declaration discussed in Chapter 2. RU at least acknowledges its role in training environmentally literate citizens and that the training can lead to changes outside the university. It also acknowledges that the curricula are a large part of that training. Studies show that simply signing onto an international declaration is "not a valid indicator of an institution's dedication to sustainability" (Wright, 2002: 115) and that integrating environmental sustainability into the university requires a more comprehensive reevaluation of the role, responsibilities and functioning of universities as HEIs within their local, national and global context (Miller, 2008: 83; Wright, 2002: 115). However, such declarations demonstrate at least what an HEI considers relevant and important. An HEI's environmental policies reflect an attempt on its part to implement those priorities.

RU's new Environmental Sustainability Policy states that sustainability is "a critical focus of its operations and decision-making as well as teaching, research and community engagement" (ESP, 2015: 1). The first principle of the new policy is on sustainability education and research. It is to "[p]romote, support and expand initiatives and programmes that lead to improved understanding, development and implementation of sustainability education and research across all faculties and disciplines" (ESP, 2015: 2).

In terms of the procedures for implementing this policy, there is a directive on sustainability education and research which calls on RU's faculties and academic departments to "initiate and develop, where appropriate, the environmental and sustainability focus in teaching, learning and research." However, this focus on teaching, learning and research is undercut by the seven other principles and nine other directives which focus only on the narrow issue of making the campus more sustainable (ESP, 2015: 2-5). This is not to say that sustainable campuses are unnecessary; they are very important. However, having seven principles and nine directives focused only on the sustainability of the campus suggests strongly that the curricula are only a subordinate concern of the policy. As a signatory to the Tailloires Declaration, RU should arguably be doing more in terms of integrating environmental content into the curricula than including it as one apparently subordinate element of its environmental policy.

RU's environmental policy goes further than many policies at other HEIs. The directives in the policy provide guidelines on how the appropriate individuals or entities might take action to achieve the defined goals (ESP, 2015: 3-5). This may be a result of the fact that RU has an Environmental Learning and Research Centre (ELRC) which serves to increase the focus on and amount of environmental research done by the university, if perhaps not sufficiently informing the policy. Significantly, however, there are no guidelines in the policy for the implementation of the directives of sustainability education and research. By way of contrast, there are at least four guidelines each for most of the other directives (ESP, 2015: 3-5). This further underscores the argument that the sustainability of

the campus is regarded by the policy as more important than environmental questions in the curricula.

As an institution, RU confronts many challenges which serve to shift the focus away from environmental concerns. As mentioned in Chapter 1, RU is located in Makana Municipality in the Eastern Cape, a municipality which struggles with sluggish economic growth, high unemployment, low matriculant pass rates and many other social challenges. It has an official unemployment rate of 32.5% (Stats SA, 2011), but the official rate does not represent the full picture. When discouraged job seekers are taken into account, the expanded rate sits at 38.5% (Stats SA, 2011).

Furthermore, many organisations dispute these numbers and suggest an unemployment rate of closer to 70% (Kota, 2011: 1). This may be because the employment rate for Makana Municipality is only at 29.4%, while 30% of the population is classified as "not economically active", i.e. either too young or too old to work (Stats SA, 2011). Furthermore, what the numbers from Statistics SA do not show is the quality of employment. For instance, many of the numbers quoted by different organisations arguably include people with low-paid, part-time jobs. Whatever the actual employment numbers are, it is incontestable that the unemployment situation in Makana is dire.

The situation is aggravated by droughts which regularly hit the region. Coupled with a degraded infrastructure, droughts often leave areas of Grahamstown without water for weeks on end (O'Keefe, 2010). Though the poorer areas of the municipality are generally hit hardest, more affluent areas suffer as well: RU was nearly closed down in 2013 because sufficient water could not be supplied to the student body. These droughts show that

environmental issues have a direct impact on human lives and that the university and the municipality have a responsibility to ensure environmental sustainability in Makana Municipality.

The Department of Water and Sanitation has recently committed R100 million "to support water supply operations, maintenance and rehabilitation" (RU Student News, 2013) for Rhodes Campus and Grahamstown. A new reservoir and pipe will be constructed to supply the campus with its own water and a plan is being developed to share this water on a rotational basis with the city during a water shortage (RU Student News, 2013). Priority will be given to "areas of high population density such as the hospital, homes for the aged, schools and the university with boarding facilities or residences, and the prison" (RU Student News, 2013).

While the new reservoir holds promise, the areas it appears to focus on do not include the poorer areas of the town. RU can therefore do more in terms of implementing ES in the region. It could, of course, use its power and influence and appeal directly to the municipality. More importantly, it could – and should – also focus on training citizens through ES in the curricula. If this is done, Makana Municipality and the surrounding areas could, given the particular challenges faced by the area, be used as important case studies illustrating the interrelatedness of humanity's relationship with nature and why ES is good for both humans and the environment.

However, RU is dealing with its own set of internal pressures. Protests occurred at RU in late 2015 around the time of the Rhodes Must Fall campaign at UCT. Protesters demanded a name change for RU as it is named after Cecil John Rhodes, a major colonialist

for the British Empire. Furthermore, in terms of the demands, the name change is to be part of broader transformational changes at the university. The decolonisation of the curricula was also called for. The protests eventually culminated in the Fees Must Fall campaign which spread across the country. The protests demonstrate that RU is already facing increasing pressure from students to transform although those demands do not focus on environmental issues. However, the 2014 Institutional Culture Survey at RU – conducted before the protest actions referred to above – shows that the majority of the white staff feel that transformation is happening too quickly at the university. It demonstrates that many staff members were already resistant to further transformation.

Although already supportive of increased transformation, the administration of the university has to implement necessary changes in the face of reluctant staff. In the context of student pressure and potentially reluctant white staff, the university has reaffirmed its 1998 commitment to environmentally sustainable practices and curricula in the 2015 Environmental Sustainability Policy. It is therefore important to examine how ES has been integrated into the curricula since 1998 and what barriers and prospects there are to further integration.

Conclusion

It is apparent, therefore, that South Africa is confronted with many critical environmental challenges which demand concrete action toward environmental transformation if it is to survive future droughts and climate change. However, meeting those demands for environmental transformation will not be an easy task. South Africa is concurrently faced with many other transformational challenges. The government is facing

pressure to increase funding for HEIs as well as increasing service delivery for other sectors of society as the country is still one of the most unequal in the world. Large increases in government spending at the expense of the deficit raise fears of a credit-rating downgrade for the country. The government is forced to appease its citizens and at the same time its investors while transforming the economy to be more inclusive. Any radical transformation of the economy could result in further credit downgrades. It is not surprising, then, that environmental issues may not be at the forefront of government concerns.

South African HEIs are confronted with the same challenges. Because of this and judging by their environmental policies, or lack thereof, many HEIs are not placing sufficient focus on transforming their curricula along environmentally sustainable lines. RU, however, has the potential to reverse this trend. It is in an economically struggling and environmentally stressed area. Seen in this context, RU has the potential to produce environmentally aware and empowered citizens through integrating ES into the curricula. The university can demonstrate that an increased focus on the environment does not necessarily have to be at the expense of other important interests; in so doing, it can demonstrate that those interests are vitally related to environmental concerns.

The extent to which ES has been integrated into the curricula at RU is analysed in Chapter 5.

Chapter 4 Methodology

In order to determine the extent of environmental content in the curricula and what barriers and prospects exist for further integration, this thesis chose an interpretivist methodology with interviews in order to tease out what the interviewees thought were the issues surrounding environmental content in the curricula. The interpretivist paradigm is a more flexible approach to research and is looking to find answers that are more complex than what a strict positivist approach would uncover (Collis & Hussey, 2003: 186). What the interviewees believe to be their reality can provide more in-depth answers (Collis & Hussey, 2003: 186) .

The author had some knowledge of the topic having studied in the Humanities Faculty and conducting desk-based research described below, but establishing the thoughts of the principals involved in curriculum formation was crucial to developing a more complete picture. Their thoughts and opinions would be the basis for assessing the barriers and prospects for ES in the curricula.

A semi-structured interview was used with some open-ended questions to allow for unrestricted, free-flowing discourse as these are good for perspectives and experiences (DiCicco-Bloom & Crabtree, 2006: 315). As they were the main people involved in curriculum formation, they would be able to provide the greatest amount of insight as to why there was or was not environmental content in the curricula. Further research was used to establish the context in which the interviewees were operating. Government

policies, environmental policies at higher education institutions (HEIs) and the Institutional Culture Report were analysed to establish this context and to see if there were any other larger-scale factors.

Interviews were conducted with all of the heads of department (HODs) in the Humanities Faculty, the Dean of Humanities, lecturers who offer courses with environmental content and some members of the Administration and Student Representative Council. The HODs and lecturers were interviewed because this was the main site of curriculum formation and they would therefore be able to provide insight into why environmental concerns were included or not included in the curricula. Members of the administration were interviewed to assess whether there was anything the administration could do to encourage lecturers to include specific content in the curricula. Members of the SRC were interviewed to examine whether students felt that they had any influence over curriculum formation and content. A total of 19 interviews were carried out.

A potential problem with interviews is that the interviewee may not be truthful if their name is attached to their views, so in order to attempt the anonymity required (Collis & Hussey, 2003:38) for the interviewees, nobody's name was used, but their positions are described. Furthermore, in terms of ethical considerations, the interviewees signed the necessary consent forms (Collis & Hussey, 2003: 38) for their participation and for their positions to be used in the thesis. Their positions had to be described because their positions were necessary to fully grasp the curricula formation process; to see who was involved, what they could do and what they have done. The interviewees were given the option for their positions not to be mentioned, and one chose this option and was described

in the way they requested. The interviewees were also sent transcripts of the interviews to review and clarify or correct anything they said in the interviews. One interviewee withdrew on the grounds that they were not happy with the way they had answered the questions. They felt that they had not been with their respective department long enough to comment fully and fairly. The respective interview was withdrawn from consideration.

A frequent problem with interviews is that of informed consent where the interviewee may lack the knowledge to give informed consent to be interviewed and have that information used and published in research. This was not necessarily a problem with this thesis because the majority of the interviewees were academics and therefore intimately familiar with the process of research and informed consent. The rest of the interviewees were all part of the university and were therefore also knowledgeable about research and informed consent. This knowledge is evidenced by the fact that one of the interviewees withdrew from the process and another requested and was granted greater anonymity.

This study looks specifically at the Humanities Faculty because, as this thesis has argued, the interrelation between the humanities and the environment is very important to both. Inductive interviews were held to see what patterns emerged from the interviewees – what they thought the barriers and prospects were, as well as questions on the three components of environmental sustainability (ES). The interviewees were all crucial members of the curriculum formation process and could therefore properly inform the thesis about the barriers, prospects and components of ES. The questions could further be applied to any faculty at Rhodes University (RU). Further research was conducted by examining both past and current environmental policies at RU. The standard course evaluation form was also

assessed as it is the main feedback that lecturers receive on their courses. Furthermore, the Institutional Culture Survey at RU for 2014 was examined in order to gain further insight into what viewpoints the staff had on transformation and environmental issues.

Chapter 5 The Extent of Environmental Sustainability in the Curriculum of the Humanities Faculty at Rhodes University

Introduction

Utilising the data collected in various interviews conducted with academics of the Humanities Faculty, management of Rhodes University (RU) and its student representative council (SRC), this chapter analyses the extent to which environmental sustainability (ES) has been integrated into the curricula of the Humanities Faculty. As Chapter 2 intimates, there are three factors which signify environmentally sustainable curricula. The first is courses which are specifically concerned with the environment or courses that have environmental components to them. The second is courses which are specifically interdisciplinary or have interdisciplinary sections which cover the broad nature of the environmental crisis. The third is curriculum formulation in a participatory fashion. This concerns how much impact faculty, management, lecturers, heads of departments (HODs) and students have on the curriculum formulation process in different departments. This chapter examines the extent to which the three components have been integrated into the Humanities Faculty at RU.

This chapter then argues that ES has only been integrated into the curricula in the Humanities Faculty to a very limited degree. Only a few departments have any

environmental courses at all. Where a department does have an environmental course, it generally has more than one. The interdisciplinary arrangements are informal, where they exist at all, and the curriculum formation process is lacking when it comes to students' voices being heard. However, there is near unanimous support for these three components and the departments claim that they take them very seriously. However, if they are indeed taken as seriously as the departments claim, then they arguably should have a greater presence in the curricula.

Environmental content

Every single interviewee recognised that the environment is extremely important. It was acknowledged in several interviews as the most important issue the future of humanity and the planet are facing (Politics Lecturer, English, English Lecturer, Philosophy)[1]. HODs, lecturers, members of management and SRC representatives frequently mentioned that they feel that environmental issues are fundamentally important and that universities should play a role in tackling environmental problems (Anthropology, Sociology, SRC, Linguistics, Fine Arts).

Despite all of the ten HODs interviewed claiming that the environment was very important, most of the departments in the Humanities Faculty have no environmental courses. Only History, Sociology, English and Anthropology have courses with specific focus on the environment. The Politics Department has one course that looks at environmental themes, but the course's main focus is corporate power (Politics Lecturer). The

[1] In terms of in-text referencing for the next two chapters, the HODs will be referred to as their department names, while lecturers in those departments will be identified by adding "Lecturer".

Anthropology Department previously had some environmental courses, but is currently going through a transition period (Anthropology) and has no such courses. One of their lecturers who gives a course on marine anthropology, who might have assisted, was abroad for the data collection period of this thesis and could not be contacted.

The History and Sociology Departments have the most environmentally focused courses. History has a first year course on the introduction to the world crisis which looks at how humans have been degrading the environment since the Age of Agriculture as well as a third year course on South African environmental history and an honours level course on environmental justice (History Lecturer). The Sociology Department has a second year course, an honours course and a master's course, all with environmental themes (Sociology). The English Department also has a third year course and an honours course with environmental themes (English). Only four of the ten departments interviewed have any environmental courses, despite all HODs professing, as indicated above, that the environment is very important. Paradoxically it appears that it is not important enough to be included in the curricula. Perhaps the interviewees were trying to present their departments as environmentally aware because the interviewer was asking specific questions relating to environmental courses.

It may be that academics are missing the link between the "crisis of our times" and what their courses can do about it. A few mentioned how important it is to educate students on environmental issues (Sociology, English Lecturer, Anthropology), but frequently this has resulted in departments doing no more than recycling paper. In fact, many interviewees, when asked specifically about ES in the curriculum, referred to solar

energy in the department (Anthropology), switching off light bulbs (Anthropology), load-shedding (Psychology), recycling paper (Linguistics, Music) and health and safety in the department (Fine Arts). It is unclear whether or not these responses resulted from the academics wanting to demonstrate that they do care about the environment despite not having advanced environmental courses into their departments.

Even at the level of institutional culture, RU does not have much concern for environmental issues aside from recycling and energy saving in the form of awareness of electricity usage. A good example of this is the SRC Environmental Representative; her portfolio is narrowly focused on the 'greening' of the campus (SRC ENV REP). All of the curriculum questions posed were referred to the Academic Representative (SRC ENV REP).

The narrow focus on 'greening' the campus is not ideal as it moves attention away from integrating ES into the curricula. This focus is reflected in RU's environmental policy as discussed in Chapter 3. This results in environmental concerns being bracketed off into 'greening' the campus with no real thought being put into integrating ES into the curricula. Wright (2002: 115) warns us that higher education institutions (HEIs) are able to 'greenwash' their image by pointing to their environmental policies and various attempts to 'green' the campuses and it could be argued that RU is following the same path. If the campus becomes 'greener', then further effort does not need to be spent on curricula because the university is now sufficiently 'green'. The environmental education of students therefore does not receive sufficient attention.

Interdisciplinarity

A large majority of interviewees stressed the general importance of interdisciplinary work and how it can broaden and deepen students' knowledge base. However, only a few departments have formal arrangements of interdisciplinarity with other departments, faculties or universities (Politics, Sociology, History). In most cases, if any arrangements exist at all, it is at a postgraduate level where a student can take an honours course from another department in a cognate discipline (Politics, Psychology). However, some course lecturers frequently invite guest lecturers to give lectures on certain topics (History, Fine Arts). Fine Art goes a step further and requires their students to take two credits from outside of the Fine Arts Department (Fine Arts). English and English Language and Linguistics have the only formal interdisciplinary course called Combined English Studies (Linguistics).

Although few formal arrangements exist, some departments argued that the very nature of their discipline allows for or even demands interdisciplinarity. An English lecturer argued that it is necessary for students studying the environment in English to become more familiar with a subject like environmental science in order for their work to remain grounded (English Lecturer). The Philosophy Department argued that philosophy is almost entirely interdisciplinary, with branches in psychology, sociology, science and politics (Philosophy). There are plans for Music and Anthropology to start an interdisciplinary course (Music) and for a course on Music and Psychology (Music). The Dean of Humanities is also hopeful for increased communication between departments (DOH), while both Psychology and Fine Arts believe that more can be done to promote interdisciplinarity at RU (Fine Arts, Psychology). A politics lecturer also argued that there is no reason why a guest lecturer cannot be brought in to discuss cross-disciplinary subjects in which the principal lecturer

may not have sufficient learning (Politics Lecturer). Much like the environment, interdisciplinarity is professed to be very important to all the departments. However, only one interdisciplinary course was found in all ten departments in the Humanities Faculty. This may be due to the bureaucratic nature of the university and due to the fact that some academics retreat into their own academic silos and have other isolationist tendencies (Fine Arts, Anthropology). Some lecturers, for example, have often been rebuffed by their colleagues who have no interest in interdisciplinary work (History) or who do not want to deal with the bureaucracy that comes with establishing interdisciplinary courses (English Lecturer). Of course, the lack of interdisciplinarity in general results in there being no interdisciplinarity between any course or department and ES. These barriers and others are discussed in greater detail in Chapter 6.

As with environmental courses, departments claim that interdisciplinarity is very important within the Humanities Faculty and throughout the university. However, as with environmental courses, interdisciplinarity is not implemented by the relevant stakeholders. Increased commitment from departments, faculties, the administration and possibly even the Higher Education Department (English) is necessary if the university and the Humanities Faculty are to be committed to the implementation of interdisciplinarity in the curricula.

Curriculum formulation

For most departments, courses are formulated by lecturers in conjunction with their HODs or course co-ordinators. The content of the courses follow the lecturers' particular areas of expertise or what they are passionate about (History, English, Politics). The History Department focuses its courses on what it feels is relevant to contemporary society

(History). The Sociology Department's approach is similar in that it endeavours to focus on contemporary political and social trends in society (Sociology). It was interesting to observe that the departments which specifically indicated that they wanted their courses to be relevant, such as Sociology and History, were those which have the highest number of environmental courses. This is not to say that other departments are inclined to be irrelevant to contemporary society, but it demonstrates that those departments which emphasise relevance to contemporary society feel that higher numbers of environmental courses are necessary. It may be argued that if the other departments feel as strongly the need for contemporary relevance, then they would have more environmental courses as they themselves recognise the environment's importance to society.

Some departments argue that they have certain obligations to fulfil to students independent of what the students necessarily want or what the department feels especially passionate about. For example, the Psychology Department says that they must fulfil obligations to the Professional Board for Psychology in order to remain an accredited department (Psychology). English Language and Linguistics claims to have similar constraints, not from a board as such, but to remain abreast of the field of linguistics (Linguistics). The Department of Political and International Relations claims that it must maintain a balance between political courses and international relations courses (Politics). In the Politics Department, external examiners also have a role in influencing the curriculum formulation (Politics).

Quite aside from these external pressures, most departments remain fiercely independent concerning their curricula. For instance, one HOD said that he would use an

expletive if "they [management/government] came and told us what to do" (History). Little to no pressure comes from management or administration as to the content of courses. At best, the dean of the faculty might facilitate conversations about transforming the curricula, but the primary responsibility rests with the lecturer (DOH). The dean was very careful to emphasise that the autonomy of departments is respected (DOH) and that course changes are merely noted.

The Deputy Vice-Chancellor (DVC) also argued that the faculties hold all the power and that the manner in which higher management structures at the university can influence curricula is through facilitating faculty conversation (DVC, DOTC)[2]. Should lecturers be willing to transform their curricula, the Director of Institutional Culture and Equity will provide questions that academics can ask themselves when formulating transformed curricula.

The SRC is able to provide feedback to departments and individual lecturers on what students think of their courses (SRC), although no department mentioned that it felt pressure from the SRC on this score. There is however, a mechanism in place, should a student approach the SRC.

All the departments claim that they take student feedback very seriously. The feedback can come in the form of individual feedback from emails (Anthropology), tutors (Politics), postgraduate students (English) and course evaluation forms handed out at the end of each course. The form has a wide variety of questions that a lecturer can choose

[2] At the time of writing, the Deputy Vice-Chancellor and Dean of Teaching and Learning were the same person and was interviewed twice in respect of the different roles.

from, as well as space for designing their own questions. The form, however, does not probe how relevant students feel the course is to the department, to the discipline or to contemporary society. Its focus is mainly on narrower issues. A more purposeful restructuring of the questionnaire would result in more meaningful feedback to the academic. This and other prospects and barriers relating to the form are discussed in Chapter 6.

The lack of crucial and pointed questions about relevancy can create a situation where the university feels forced to intervene. One department had mainly Eurocentric courses and it was asked by the university to restructure its curriculum to include more African courses (Philosophy). It had to come up with a five-year plan to transform its curriculum appropriately (Philosophy). This is the only example of when the university has involved itself in the curriculum of a particular department. However, if departments remain untransformed, then the concerns of movements like the Black Students' Movement (BSM) might cause the university to involve itself in curriculum formulation more meaningfully.

The BSM at RU has placed real pressure on departments to look more seriously at their respective curricula, as have the broader issues of transformation currently confronting HEIs throughout South Africa. The BSM and transformation issues were identified by several interviewees as exerting pressure for curriculum transformation (DOH). While the questions the BSM raise and the pressure they exert are unquestionably useful tools, it must nonetheless be asked why it is only when there are mass protests that departments start taking curricula transformation seriously. This points to a lack of serious commitment by departments to transforming curricula. While departments readily

acknowledge how important transformation is, they appear unwilling to take any concrete steps towards actual transformation unless they are forced to by the student body, or in rare cases, the university. Mechanisms already in place, such as course reviews, are arguably not effective enough. More needs to be done in order to fully bring about a more participatory curriculum formation process.

Conclusion

The overall theme that emerges from this chapter is this: Departments assert that they support the three areas of ES, namely participatory curriculum formation, environmental content and interdisciplinarity, but there is little evidence to support their assertions. The departments generally pay little more than lip service to ES. Only three departments have multiple environmental courses. There is only one course in the entire faculty that is a formal interdisciplinary course. The mechanisms in place for participatory curriculum formulation also appear to be insufficient.

It is difficult to determine the extent to which student feedback is taken into account in different departments, but the fact that departments have felt no pressure from the SRC while the BSM is so vocal in its calls for curriculum transformation (though not seemingly environmental concerns) demonstrates that the mechanisms in place are inadequate. The SRC and the various feedback mechanisms need to be improved in the Humanities Faculty if ES is to be integrated successfully. However, thanks to the BSM and other transformation advocates, faculties are feeling the pressure and in some cases taking steps to review their curricula. This shows some evidence that departments are willing to change their curricula, but it seems to be a slow process at best. The barriers that are preventing what the

departments claim to be very important from being integrated into the curricula will be examined in the next chapter.

Chapter 6: Barriers and Prospects for further integration of ES into the curricula of the Humanities Faculty at Rhodes University

Introduction

This chapter will critically assess the prospects of successfully integrating environmental sustainability (ES) further into the curricula in the Humanities Faculty at Rhodes University (RU) and the barriers to such integration. It will argue that because of the high importance placed on the environment by the interviewees, there are reasonable prospects for further integration. However, the current lack of integration despite its stated importance does reduce those prospects. The continued focus on the 'greening' of campus threatens to relegate ES to a minor issue. In that scenario, ES is addressed simplistically through no more than efficient recycling and other carbon footprint reducing activities. It is incumbent on students to exert pressure on their lecturers through whatever means they have to facilitate change. It is also incumbent on lecturers not only to respond positively but also to play a meaningful role in educating students about ES.

The interviews revealed eight barriers that must be overcome to allow ES to be successfully integrated into the curriculum. They are as follows: space in the curriculum, bureaucracy, decentralised nature of higher education institutions (HEIs), the reluctance of students for increased interdisciplinarity, a lack of environmental criteria at the level of administration, perceived irrelevance of the environment to certain disciplines, lack of environmental expertise and a lack of interest from students. This chapter will critically assess those barriers and offer potential solutions to them. It will also examine various

potential prospects identified in the interviews to determine if they may advance further integration of ES into curricula.

The most common potential prospect for success is that all interviewees stated that the environment is seen as a very important concern (Politics Lecturer, English, English Lecturer, Philosophy, SRC). It was also recognised several times as the most important issue faced by the future of humanity and the planet. HODs and lecturers frequently mentioned that they feel that environmental issues are very important and that universities should play a role in addressing environmental problems (Anthropology Lecturer, Sociology, Linguistics, Fine Arts).

Despite the proclaimed importance of the environment, however, a major barrier experienced at RU is that lecturers feel that there is not enough space in the curricula to include environmental issues, regardless of how important they may feel the environment is (English, Politics, Philosophy). There is thus a clear contradiction in asserting that environmental issues are extremely pressing and important and in the same breath, as it were, stating that there is just not enough space in the curricula to include them. This casts doubt on the legitimacy of the assertions that the environment is fundamentally important. If environmental concerns were as important as claimed, it follows that there would necessarily be more environmental courses to be found in the curricula.

The argument that there is not enough space in the curricula points to another barrier, although a much more subtle one: the notion that environmental issues just need to be added onto the existing curricula. The notion that all that is required is to add on a few lectures, perhaps a week-long course or indeed a term-long course on environmental issues

in order for a department to have successfully integrated ES into the curriculum is flawed. Simply adding on some lectures or a course ad hoc does not transform the curriculum meaningfully from an environmental perspective. Existing courses should be reformed in order for environmental issues to be integral to the courses (Miller, 2008: 82). For example, the theory taught in the courses could remain the same but how that theory links specifically to environmental considerations should be taught as well.

This approach requires no additional lectures; other relevant topics do not need to be omitted. What is needed is a reorientation in approach to integrated teaching without additional space in the curricula being required. Moreover, by viewing ES as just additional content, the full potential of ES is undermined and diminished. ES can be a transformational force in the way curricula are formulated. It can potentially lead to increased levels of participation within the student body as well as increased levels of interdisciplinarity – something lecturers also claim to be supportive of (English Lecturer, Politics Lecturer, History Lecturer).

One barrier noted by a department regarding interdisciplinarity is that its students do not want a more interdisciplinary approach. They wanted more clinical psychology and not the psychology of race or sexism (Psychology). Students may therefore actually want less of an interdisciplinary approach to some subjects. Imposing interdisciplinary courses in ES integration on an unwilling student body would undermine the participatory component of ES.

Another identified barrier confronting interdisciplinarity is the bureaucracy involved in establishing courses (English Lecturer). Questions like who should be accredited and how

much the course will be weighted frequently deter lecturers from even attempting to set up interdisciplinary courses (English Lecturer). It was suggested that more could be done by the Higher Education Department to resolve the bureaucratic entanglements which would make it easier for interdisciplinary courses to flourish (English Lecturer).

The difficulty of successfully implementing interdisciplinarity is linked to the barrier which emerges from the decentralised nature of the university (Anthropology). An interviewee suggested that trying to persuade lecturers to do anything was like "trying to herd cats" (Psychology). This highlights the unwillingness of lecturers to be told what to do (Anthropology). Even if the appropriate policies are in place at a national or university level, lecturers will not necessarily implement them.

The data shows that very few of the interviewees were even aware that the environmental policy existed, a far cry from implementing that policy when drawing up curricula. This is because the very structure of the university allows for the independence of lecturers. Interference from the faculty or the administration was very strongly resisted by many of the interviewees. This fiercely guarded independence of the departments and lecturers poses a significant barrier to imposing transformation from the administration.

However, one department said that it had been pressured by management to transform its curriculum. This department said that it had to come up with a five-year plan to transform what it is teaching (Philosophy). This demonstrates that the administration can, with the necessary will, exert appropriate pressure on departments, but this seemingly occurs only in isolated instances.

In response to the general structural independence, members of management stated that they can do no more than encourage transformation in the curricula (DOTC). Part of this encouragement might be the hosting of curriculum transformation conferences and workshops to encourage lecturers and departments to transform (DOTC). There are potential mechanisms which could assist in integrating ES into the curricula, but this requires the departments to be sufficiently committed to transforming themselves.

The independent nature of university departments is necessary in that it does allow lecturers to teach what they feel is relevant. This independence would be positive in circumstances where the administration is against ES while lecturers want to teach it. Their independence would ensure that ES is taught in spite of administration. However, this is not the case. Despite all the interviewees asserting the importance of environmental issues and there being no obvious antipathy from administration, very few departments have environmental courses or indeed any environmental content in their courses. Despite the asserted importance of environmental issues, the evidence suggests that very few departments feel that it is indeed sufficiently important to them to make appropriate changes.

The proclaimed importance of the environment leads to an interesting consideration which was raised by a member of management. It was suggested that the prospect of environmental transformation at a curriculum and campus level is more likely because it is a less controversial form of transformation (Management) than some other transformation issues confronting RU. The Report on Institutional Culture at Rhodes University 2014 shows that only 31% of white staff think that RU should increase its rate of transformation, while

70% of other race groups think that this should be so (Institutional Culture Survey, 2014: 48). This points to a strong divide amongst the staff at RU on the issue of transformation. That kind of transformation does not include environmental transformation, so there may well be more support for environmental transformation across all staff members (Management). The environment is not seen as a controversial issue; it is not resisted to the same extent to which a reluctant white staff member may appear to resists racial transformation at RU.

A corresponding barrier to this is that the same report has no category for environmental transformation in any form (Management; Institutional Culture Survey, 2014: 48). Even at a level of institutional culture, RU does not have sufficient meaningful concern for environmental issues aside from limited concerns around recycling and turning off lights. A good example of this is the SRC Environmental Representative whose portfolio is concerned with no more than the 'greening' of the campus. All of the curricula questions were referred to the Academic Representative (Environmental Representative). Environmental concerns have been bracketed off into 'greening' the campus with no real thought being addressed to integrating environmental sustainability into the curricula.

At a departmental level, even when asked specific questions relating to curricula, the answers about ES were frequently given in the simplistic terms of recycling, turning off lights and the like (Linguistics, Fine Arts). The majority of those giving these answers were from departments that did not have environmental courses. It may be that the campus 'greening' answers were given in order to demonstrate "sufficient" concern. Another possible reason is that those departments could not perceive how ES might relate to their departments'

curricula, with the result that they had not given environmental transformation much thought beyond recycling and energy saving.

Another barrier mentioned by interviewees at RU is how to relate ES to a specific department's existing curriculum (Linguistics). How does one relate environmental sustainability to linguistics? Or musicology? This point is well made because some disciplines are undoubtedly far removed from ES. This does not mean, however, that they cannot take the interdisciplinary and participatory aspects of ES referred to earlier more seriously. These aspects are arguably useful to curriculum transformation of any kind, not just ES. Departments can still adopt these aspects, regardless of how far they perceive their discipline to be removed from environmental concerns.

Another barrier is that of expertise. Many of the HODs mentioned that their curriculum is based on the expertise of the lecturers or at least on what those lecturers want to teach (Sociology, Philosophy). If a department simply has no lecturers who have environmental expertise or interest, then the argument is that it would be difficult to lecture on environmental issues.

However, this should be seen as an opportunity for interdisciplinarity to be implemented. Guest lecturers might be invited to lecture on topics where there may be gaps in existing knowledge. Moreover, none of the departments suggested that an understanding of environmental issues was ever a consideration in the hiring of staff. If a department does not even consider hiring staff with environmental credentials, while the

department expresses its concerns for the environment, then it is fallacious to argue that the department does not have the relevant expertise.

Departments make choices about whom to hire. The human resources (HR) form used by departments when hiring candidates (HR, 2015) does not indicate a need for the prospective employees to have any environmental knowledge or experience. This is an example of where the administration might intervene in order to ensure that the relevant expertise is introduced into departments. Having the HR form include an environmental section would provide some impetus in the hiring of staff with relevant expertise. If environmental issues are really a major concern, then staff should be hired who have the necessary skills.

The newly formed BSM has catapulted issues of racial and class transformation to the forefront of thought at university. This has resulted in many departments experiencing pressure from below to transform their curricula. Many of the interviewees said they feel pressure to transform along race and class lines far more than along environmental ones (Dean of Humanities). This is due to both the BSM and the Rhodes Must Fall Movement – pressure groups operating from below.

The current transformation pressures being brought to bear on the university in respect of race and class may serve to deflect focus from restructuring curricula to address appropriate ES teaching. They should not do so. They should be seen, rather, as an opportunity to reflect on all necessary and appropriate transformation – including the transformation of curricula so as to introduce ES to the necessary extent.

Pressure from below does not only have to come in the form of a movement. All the departments have mechanisms by which students can provide feedback to lecturers about their courses and all departments assert that they take this feedback very seriously. This is a built-in and available opportunity for students to influence the curricula.

The course assessment questionnaire that is generally handed out at the end of a course to all students is very flexible in terms of the questions a lecturer can ask. From a list provided by the Centre of Higher Education Research, Teaching and Learning (CHERTL), the lecturer can ask any of 163 questions about their teaching methods and 131 about the course (Basic Guide, 2004: 9).

The lecturers are also free to add their own questions should they wish to do so. There are a limited number of questions a lecturer can ask on the actual form given the limits of the form itself, but they are nonetheless free to ask anything they deem appropriate. This can be a very useful tool for lecturers. None of the 163 official questions, however, ask about environmental courses or concerns. Students' review is based only on the course and the lecturer (Basic guide, 2004: 9), not on what the students would like to study in other courses or what they would prefer to study in the course in question. This is a major barrier as the course reviews, limited in their ambit, are the principal tools used by lecturers to obtain feedback from students.

There is nothing fundamentally wrong with course evaluation focusing on the course itself. As this is the most significant and only form of feedback for lecturers, however, there needs to be a broader component to the evaluation if student feedback is to be more meaningful. Lecturers will not be informed of a demand for more environmental courses

when the questions do not address environmental courses or issues. Student feedback needs to be broader, not just about specific courses, but about the whole curriculum. Prompts about environmental concerns in the questionnaires could potentially energise insight by students into those concerns and ensure relevant input from them.

Regardless of how the feedback mechanism works, however, student apathy remains a barrier. A more effective feedback mechanism will not bring about change to better ES curricula if the students are apathetic about ES. A lecturer felt that South Africans are not particularly environmentally aware as compared to some other countries (Politics Lecturer). The data does lend some credence to this belief: not a single interviewee had been approached by a student who asked for more environmental content in the curricula. The SRC Environmental Representative had been approached by two students who wanted something done about the cigarette butts smokers left outside of campus buildings, but this narrow concern was the only indication in the interviews of any environmental issues being raised by students. There are environmental groups at RU such as RU Green and Rhodes Organisation for Animal Rights (ROAR), but it appears they have exerted no pressure at all on anyone in the faculty to increase environmental content in the curricula.

The lack of student awareness is in sharp contrast to the interviewees' assertions that they, the interviewees, feel the environment is very important. It is incumbent on those lecturers and HODs who feel strongly about environmental issues to educate the student body more through the curricula. Herein lies the balance the approach to ES needs to strike. It needs to be sufficiently participatory and interdisciplinary, but still contain enough environmental content to ensure the curricula are sufficiently transformed from an

environmental perspective. Students graduating from the university would then be sufficiently educated in environmental matters, in addition to other disciplines learnt, to take that knowledge into their workplaces and thereby to transform society and the economy.

Ultimately, what many of the lecturers and HODs were saying is that they want the curricula to be relevant and they respond to what the students think is relevant. Therefore, it is up to the students to decide what they feel is relevant, and the curricula changes will follow; the students themselves need to pressure their departments into making the necessary changes. However, this view discounts the reality that the lecturers are the educators and that they accordingly hold considerable responsibility in educating students about environmental concerns. There are no hard and fast rules on how a curriculum is to be balanced, and each context-specific situation will bring its own challenges and demands. There should therefore be an ongoing conversation between students and academics rather than one party dictating to the other what is important and relevant and what should be included in the curricula.

Conclusion

The most encouraging prospect for further integration of ES into the curricula is the proclaimed importance of the environment by all departments in the Humanities Faculty. However, this proclaimed importance of the environment has not been sufficient for many departments to take the necessary steps to integrate ES, or any sort of environmental content, into the curricula.

This chapter has assessed the barriers brought up in the interviews and has argued that many of the barriers faced by the Humanities Faculty can be overcome if there is sufficient will and determination from all concerned parties. There is potential for the barriers identified to be overcome. However, the generation of the requisite will remains an issue. All of the HODs proclaim the fundamental importance of the environment, but that proclaimed importance has not translated into environmental content in curricula.

Pressure on curriculum transformation by movements like the BSM is a good example of how pressure from students can force otherwise intransigent departments, faculties and administrations to take transformation issues seriously. However, the lack of student pressure, and even apathy, on environmental issues demonstrates that pressure must necessarily emanate from lecturers as well. If the environment is as important as lecturers claim, then self-evidently they should be doing more to educate students.

Despite the independent structure of universities, there are still limited mechanisms that the administration can initiate in order to influence the curricula. For example, having an environmental policy that gives clear guidelines to lecturers on how to integrate ES into the curricula will be very helpful to lecturers and departments struggling to integrate environmental concerns. Another example is changing the hiring guidelines for prospective employees in the HR hiring form. The lack of expertise on the part of academic staff is a major barrier and changing the hiring criteria to hire more environmentally conscious staff would go a long way toward addressing that barrier.

If administration should take the steps contemplated,. with faculty and lecturers committing to integrating ES and students' exerting appropriate pressure, there exist

reasonable prospects for ES transformation at RU. However, true transformation on this critical issue remains doubtful as what is said by departments is not in many cases reflected in reality.

Chapter 7 Conclusion

Introduction

The extent to which environmental sustainability (ES) has been integrated into the curricula in the Humanities Faculty at Rhodes University (RU) remains very limited. The barriers preventing further integration vary from a lack of space in the curricula to limited environmental expertise, bureaucracy and the decentralised nature of higher education institutions (HEIs). However, prospects for further integration remain reasonable. The environment is seen as a very important issue by the faculty, departments and lecturers and there seems to be some responsiveness from departments to student demands on curriculum transformation. Many of the barriers can be overcome through sufficient will and determination by the concerned parties.

South Africa is currently facing a major environmental crisis in the form of a drought that has a direct impact on the food security of millions of people. The crisis is taking place alongside consistently high unemployment rates and widespread calls for transformation along race, class and gender lines. The government has introduced legislation and policies to deal with environmental issues while most HEIs have adopted environmental policies. HEIs can and should play an important role in the education of society and the transformation or reinforcement, where appropriate, of societal norms.

However, environmental policies at the level of HEIs have arguably been insufficient, if they exist at all. This is certainly the case at RU in the Eastern Cape where environmental policies have been unfocused, too limited and without any clear guidelines to faculties and

departments for the integration of environmental content into their curricula. As argued in this thesis, ES in the curricula could potentially pave the way for HEIs to confront the challenges they and society at large are facing.

Despite the old environmental policy calling for ES in the curricula, and all of the interviewees proclaiming the importance of the environment, integration of ES into the curricula of the Humanities Faculty remains low as the barriers preventing further integration remain entrenched. However, none of the barriers are insurmountable if there is sufficient will from all concerned parties.

In the Humanities Faculty, all of the interviewees stated that they view the environment as very important, but this did not follow through into much, if any, environmental content in the curricula. The will on the part of heads of departments (HODs) and lecturers seems insufficient on the whole. On the part of students in the faculty there is general apathy with limited or no interest in environmental issues at all. None of the interviewees indicated that even a single student had approached them about increasing environmental content in the curricula.

The generation of the will to integrate ES into the curricula therefore remains a key barrier to be overcome. Insofar as the actual transformation of curricula is concerned, movements like the Black Students Movement (BSM) have successfully exerted pressure on the faculty but they have focused mainly on the "decolonisation" or "Africanisation" of the curricula with seemingly little or no emphasis on the environment. The only pressure the interviewees said they felt on transforming the curricula came from groups like BSM. It does appear, though, that the calls for curriculum transformation by these groups are being

heard by RU and the various departments, with many interviewees saying that they are investigating how best to accommodate these calls. It appears, therefore, that sufficient pressure on relevant issues from students themselves can bring about change at departmental and faculty levels. However, it is clear that students are not sufficiently engaged in environmental issues to generate any pressure on authorities. If the region-wide drought and the media coverage of climate change are not enough to engage students and to convince them to assert pressure on their departments, then arguably it remains for the departments themselves to educate students about environmental issues and their importance.

ES is arguably a solution. If the components of ES are taken as seriously as they ought to be, then the importance of environmental issues will not be viewed as yet another course, perhaps unwanted, to be squeezed into already overcrowded curricula. The environment is undeniably and inextricably linked to the many contemporary issues faced by the world and South Africa and the participatory nature of ES can introduce context-specific solutions to those issues.

This thesis has examined how the Humanities Faculty at RU views the environment, and what practical steps the faculty has taken to integrate environmental concerns into the curricula. It is seen as an important issue, but not important enough to have many courses with environmental content. It also shows what barriers exist which prevent further integration. The independent nature of the HEI can act as a barrier to transformation in the curricula. Furthermore, the incorrect viewpoints - first, that ES is simply a course to be added onto a busy curriculum, and second, that there is a lack of expertise amongst

lecturers - can be overcome through a correct understanding of ES and the hiring of new staff with sufficient learning and appreciation for this important issue.

Limitations and Recommendations

It was difficult to ascertain students' viewpoints fror across the faculty as a half-thesis could only conduct so many interviews. It was, however, possible to infer what student viewpoints are because the interviewees all said that they had not been asked by even a single student to integrate more environmental content into the curricula. Further research could be undertaken to ascertain the viewpoints of a wide sampling of students in the Humanities Faculty.

Furthermore, research could be undertaken at RU in other faculties to ascertain the extent of environmental content in all curricula at the university and if the same barriers exist across faculty lines. It is certainly conceivable that some faculties have greater or less interdisciplinarity, environmental content or participatory curricula formulation than the Humanities Faculty. Further analysis could show why this is the case and how other faculties have overcome the barriers to ES integration. Additional research could also indicate how different faculties can learn from each other with regard to integrating ES in the curricula. Similar research can be carried out at other South African HEIs for the same purposes.

Insofar as environmental policies are concerned, they do not exist at many SA HEIs, and where they do exist, they are narrow in their focus and do not offer clear guidelines on how to integrate environmental concerns into the curricula. Policies need to be clearer and better informed. Furthermore, departments often remain ignorant of the policies. There

should be a more effective way to convey the information in the environmental policies to departments.

This thesis can be useful for advocates of ES as it examines what prevents the integration of ES into the curricula at an HEI in a majority world country dealing with a variety of environmental, political, economic and social pressures. It shows what has been achieved at an HEI and offers a local view of the effort to bring ES into the wider curricula.

Conclusion

All interviewees asserted that the environment is fundamentally important to society and to the future of the world. That recognition, however, has not translated into the integration of environmental issues into the curricula. The recognition of the importance of environmental issues, moreover, is not shared by students. As educators, it remains incumbent on lecturers to educate students on environmental issues. ES can operate as a guideline for HEIs, faculties and departments to educate students on the fundamental importance of environmental issues and to train them to face the challenges confronting South Africa.

HEIs arguably reinforce the norms of society. They equally play a leading role in transforming those norms where necessary. South Africa faces an environmental crisis together with a myriad of economic, political and social challenges. As leaders in innovative thought and learning, it is incumbent on South African HEIs to determine how and to what extent they will participate in the education and training of South African society on the fundamentally important environmental issues confronting it.

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Interviewees (2015)

Anthropology Head of Department

Dean of Humanities

Deputy Vice-Chancellor

Dean of Teaching and Learning

English Head of Department

English Language and Linguistics Head of Department

English Lecturer

Fine Arts Head of Department

History Head of Department

History Lecturer

Management Member

Music & Musicology Head of Department

Philosophy Head of Department

Political and International Studies Head of Department

Political and International Studies Lecturer

Psychology Head of Department

Sociology Head of Department

Sociology Lecturer

Student Representative Council Academic Representative

Student representative Council Environmental Representative