A case study of staff perceptions of sustainability in an Australian regional university

Joy Hardy¹, Susen Smith², Robyn Bartel¹, Michael Littledyke¹, Darren Ryder¹

¹University of New England
²University of New South Wales

Abstract

Higher education has been assigned a key role as a significant change agent in the pursuit of sustainability. Consequently many universities are investigating whole-of-university approaches to sustainability. Whole-of-university approaches suggest a shared vision of and commitment to sustainability and sustainable practices. However, sustainability is a complex, multi-faceted and contested concept and universities comprise communities of diverse perspectives and conflicting values. This paper analyses semi-structured interviews with staff at an Australian regional university in order ascertain their particular / preferred perceptions of sustainability.

Keywords: sustainability, higher education, appraisal, Australia, case study
1. Introduction

The higher education sector first expressed a formal commitment to sustainability through the formulation of the *Talloires Declaration* (University Leaders for a Sustainable Future, 1990), a ten point plan for incorporating education for sustainability into teaching, research, operations and community engagement. Three decades later, the key role of higher education as a change agent is still upheld and actively advocated. Stephens, Hernandez, Román, Graham & Scholz (2008, p. 333), for instance, state that “institutions of higher education can be considered a stakeholder group with significant potential influence on society”. Similarly, McMillin & Dyball (2009, p. 55) state that “institutions of higher education are poised to play a significant role in the search for a more sustainable future”. McMillan & Dyball continue, “Universities can optimise their role as agents of change with regard to sustainability by adopting a ‘whole-of-university’ approach to sustainability” (McMillin & Dyball, 2009, p. 55).

Adopting a whole-of-university approach to sustainability suggests a shared vision of sustainability. However, sustainability is not a univocal concept, as Kelly notes:

Sustainability is a contested idea: a plural concept like democracy and justice that must be owned and made sense of by communities of diverse perspectives, conflicting values, and particular ecological and cultural settings. Sustainability is a practical idea that must be worked out on the ground, concretely and in synch with the rhythms of day-to-day life. Sustainability is a cosmopolitan idea; it is global, international, and intergenerational. (Kelly, 2012, p. 1)

This paper reports on a research project that sought to investigate the perceptions, aspirations, expectations and practices of environmental sustainability across the community of diverse perspectives and conflicting values within an Australian regional university. The project employed a mixed-method approach (Denzin, 2010) that included semi-structured interviews. Underpinned by the poststructuralist assumption that language plays a constitutive role in the construction of reality, this paper analyses the representations of sustainability and sustainable practices in the semi-structured interviews. The regularities of form and substance, of lexical and grammatical choices, provide a means to explicate the prevailing views of sustainability and sustainable practices within the university. The analysis draws on thematic analysis and Appraisal (Martin & White, 2007) to explicate the discursive construction of sustainability and sustainable practices by examining both what is said and how it is said.

2. Research Context

The analysis presented here is part of a broader research project entitled “Perceptions, aspirations, expectations and practices of environmental sustainability: A case study of a regional Australian university”. This university-funded project was undertaken in an Australian regional university that is situated in a rural location; thus, the impacts of environmental issues are often felt more immediately and more directly than in metropolitan centres. The university is also located in a region that has adopted a whole-of-region, multi-stakeholder governance structure and approach to sustainability. In addition, the university:

- became a signatory to the *Talloires Declaration* (University Leaders for a Sustainable Future, 1990) in 1995;
- introduced an ‘Environment and Sustainability Policy’ in 2004;
- has a critical mass of academics committed to education for sustainability in their teaching and research;
- has embedded appreciation of the importance of sustainable development in the graduate attribute of ‘social responsibility’ across the university; and
- offers one undergraduate and five
postgraduate courses that specifically address sustainability.
Thus, the research project was conducted against a backdrop of awareness of and support for sustainability. Yet, as noted above by Kelly (2012), sustainability is not a univocal concept. It can be expected that there will be diverse perceptions, aspirations, expectations and practices of environmental sustainability. This paper examines the former, the diverse perceptions of sustainability per se and sustainable practices.

3. Methods and data collection procedures

The study utilised a mixed-methods approach (Denzin, 2010), which involved: identifying key stakeholders; auditing and mapping sustainable practices at the university in operations, research, teaching and learning; and preparing a case study of extant sustainable practices to identify best practice and recommendations for interventions to the university. A thorough review of institutional grey data and relevant literature relating to sustainability was undertaken to assist in identifying the university’s sustainability profile in order to develop and test adequate data collection tools. This preliminary work assisted in identifying issues and concerns with data collection approaches. To help establish a focus for the literature review and the institutional grey data, the research team established an advisory group with considerable knowledge, experience and interest in the field. It was identified that the main issues were stakeholder practices, aspirations and perceptions for environmental sustainability.

The comprehensive review of the institutional grey data and relevant literature provided the foundation for the design, development and validation of an online survey tool to collect stakeholder practices, aspirations and perceptions of environmental sustainability. A key feature of the online survey tool was the inclusion of sections that compared stakeholder practices, aspirations and perceptions of environmental sustainability both at the university and at home. This comparative aspect enabled the identification of enablers and inhibitors of sustainability practices at the university. Following ethics clearance, and launching by the Vice Chancellor, the online survey was opened to all university staff and was completed by 162 respondents.

The project team also developed an interview schedule for 25-30 minute semi-structured interviews with a representative sample of university staff and managers from a range of academic, support and operational areas (n=23). The interview questions were designed to gain elaboration upon responses to questions contained in the online survey. The analysis presented here focuses on the transcripts of the semi-structured interviews. The compiled transcripts constitute a small corpus of 33,750 words, as per the specification of small corpora by Baker, Khosravinik, Krzyzanowski, McEnery & Wodak (2008).

4. Results

The transcripts were analysed using thematic analysis and Appraisal (Martin & White, 2007). The thematic analysis was based upon the key concepts and themes of education for sustainability as presented by Australian Government, Department of the Environment and Heritage (2005). This framework of key concepts and themes (Figure 1) was chosen for the thematic analysis on several grounds: the research project was framed by the concept of education for sustainability; the framework provides a detailed set of generic themes and concepts; and the framework had been developed for use in the Australian context.

The key concepts and themes within the framework are not mutually exclusive. There are commonalities, as illustrated by the definitions provided in the framework for ‘eco-efficiency’, ‘sustainable consumption’ and ‘sustainable production’:
<table>
<thead>
<tr>
<th>Ecological Sustainability</th>
<th>Social Sustainability</th>
<th>Economic Sustainability</th>
<th>Political Sustainability</th>
</tr>
</thead>
<tbody>
<tr>
<td>biodiversity</td>
<td>basic human needs</td>
<td>cost-benefit analysis</td>
<td>citizenship</td>
</tr>
<tr>
<td>0</td>
<td>11</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>habitat</td>
<td>cultural diversity</td>
<td>economic development</td>
<td>democracy</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>carrying capacity</td>
<td>cultural heritage</td>
<td>eco-efficiency</td>
<td>decision-making</td>
</tr>
<tr>
<td>1</td>
<td>0</td>
<td>122</td>
<td>0</td>
</tr>
<tr>
<td>conservation</td>
<td>human rights</td>
<td>life-cycle analysis</td>
<td>tolerance</td>
</tr>
<tr>
<td>29</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>ecological footprint</td>
<td>intergenerational</td>
<td>natural capital</td>
<td>power</td>
</tr>
<tr>
<td>5</td>
<td>equity</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>ecology</td>
<td>participation</td>
<td>natural resource</td>
<td>respect</td>
</tr>
<tr>
<td>0</td>
<td>17</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>ecospace</td>
<td>peace</td>
<td>steady-state economy</td>
<td>conflict resolution</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>ecosystems</td>
<td>risk management</td>
<td>sustainable consumption</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>3</td>
<td>117</td>
<td></td>
</tr>
<tr>
<td>interspecies equity</td>
<td>social justice</td>
<td>sustainable production</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>53</td>
<td></td>
</tr>
<tr>
<td>natural cycles and</td>
<td>triple-bottom line</td>
<td></td>
<td></td>
</tr>
<tr>
<td>systems</td>
<td>0</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

Figure 1: Key concepts and themes

**Eco-efficiency:** “A strategy for maximising the productivity of material and energy inputs to a production process while also reducing resource consumption and waste production and generating cost savings and competitive advantage” (Australian Government, Department of the Environment and Heritage, 2005, p. 25)

**Sustainable consumption:** “The use of services and related products to satisfy basic human needs and bring a better quality of life while minimising the use of natural resources and toxic materials as well as emissions of waste and pollutants over the life cycle of the service or product”. (Australian Government, Department of the Environment and Heritage, 2005, p. 28)

**Sustainable production:** “Industrial processes that transform natural resources into products that society needs in ways that minimise the resources and energy used, the wastes produced, and the effects of work practices and wastes on communities” (Australian Government, Department of the Environment and Heritage, 2005, p. 28)

The definitions of each of these terms include references to environmentally supportive production processes and waste minimisation. Thus, clear distinctions needed to be drawn between these terms in the context of the given project. Interviewees’ comments that were classified as ‘eco-efficiency’ included practices that maximised energy inputs and reduced resource consumption and waste production, such as using both sides of paper when printing or photocopying, recycling and using particular modes of transport, e.g. cycling, car pooling and public transport. Whereas, interviewees’ comments that were classified as ‘sustainable consumption’ referred to a diverse range of practices, such as practices that reduced electricity and water consumption, buying locally produced goods and / or organic foods, and turning appliances off at the power point when not in use. Whereas comments that were classified as ‘sustainable production’ included comments that referred to (i) the incorporation of features that promote sustainability in building construction, such as the use of natural light, solar panels and solar hot water, and ‘green’ building materials, as well as retro-fitting sustainable features to existing buildings and (ii) the use of technologies that reduce environmental impact in the performance of university work and services, such as using electronic unit materials rather than producing hard copies. Care was taken to clearly and consistently distinguish between all key
concepts and themes in the context of the research project.

The number of responses that referred to particular key concepts and themes are summarised in Figure 1. The numbers indicate the number of responses in which the key concepts and themes were raised rather than the total frequency. It was common for a key concept or theme to be mentioned several times within a single response, especially in extended responses, in order to maintain ideational focus, clarity and cohesion. In such instances, the key concept or theme was recorded once only.

In addition to identifying and analysing the key concepts and themes that were raised, the evaluative aspects of the lexico-grammatical resources that the interviewees used to present their responses were also examined. In other words, the analysis covered both what was said and how it was said. The Appraisal framework (Martin & White, 2007) was used to analyse how the interviewees presented their responses and the rhetorical functions that may have been served by such presentation. Appraisal, an extension of Systemic Functional Linguistics (Halliday, 1994), “is concerned with evaluation – the kinds of attitudes that are negotiated in a text, the strength of the feelings involved and the ways in which values are sourced and readers aligned” (Martin & Rose, 2007, p. 17). Martin and White elaborate, stating that Appraisal:

is concerned with the interpersonal in language, with the subjective presence of writers / speakers in texts as they adopt stances towards both the material they present and those with whom they communicate. It is concerned with how writers / speakers approve and disapprove, enthuse and abhor, applaud and criticise, and with how they position readers / listeners to do likewise. It is concerned with the construction of texts by communities of shared feelings and values, and with the linguistic mechanisms for the sharing of emotions, tastes and normative assessments. It is concerned with how writers / speakers construe for themselves particular authorial identities or personae, with how they align or disalign themselves with actual or potential respondents and how they construct for their texts an intended or ideal audience. (Martin & White, 2007, p. 1)

Figure 2: Overview of the Appraisal framework

The Appraisal framework consists of three domains: Engagement, Attitude and Graduation (Figure 2). The first domain, Engagement, draws upon Bakhtin’s (1981) notion of ‘dialogism’ and refers to the resources that “provide the means by which speakers / writers adjust and negotiate the arguability of their propositions and proposals” (White, 2001e, p. 1). The second domain, Attitude, concerns “those utterances which can be interpreted as indicating that some person, thing, situation, action, event or state of affairs is to be viewed either positively or negatively” (White, 2001b). Finally, the third domain, Graduation, concerns the “[v]alues by which (1) speakers graduate (raise or lower) the interpersonal impact, force or volume of their utterances, and (2) by which they graduate (blur or sharpen) the focus of their semantic
categorisations” (White, 2001a, p. 2). Given the constraints on space, the analysis presented here will draw on the Attitude domain only.

The Attitude domain consists of three regions: Affect, Judgement and Appreciation (Figure 2). The former, Affect, concerns “evaluation by means of the writer / speaker indicating how they [or others] are emotionally disposed to [a] person, thing, happening or state of affairs” (White, 2001b, p. 7). Affect can be evaluated positively or negatively according to socio-cultural norms. Happiness, for example, is likely to be evaluated positively, unless it is a delusional happiness, whereas anger is likely to be evaluated negatively, unless it is righteous anger. Thus, evaluations of emotions are context dependent. The interviewees frequently utilised positive and negative Affect in their responses, either by referring to particular emotions or to behaviours that are associated with particular behaviours, as indicated below in bold.

I would love to see not just normal email and IT policies, but really focussed policies on how we stop using paper in each directorate or cost centre.

I’m very proud of our low electricity bills from year to year.

I laugh a bit at this concept of earth hour where it’s a big thing for people not to have their lights on once a year.

I think that sustainability is essential and that currently we don’t live in a sustainable manner. And I worry about it.

I’m always frustrated when I’m sitting in a meeting and everyone has printed out the attachment on multiple pieces of paper.

I feel very guilty if I don’t recycle

The Judgement region of the Attitude domain “encompasses meanings which serve to evaluate human behaviour [of an individual or a group] positively and negatively by reference to a set of institutionalised norms” (White, 2001c, p.11). Judgement, indicated in the statements below by underlined font, was used extensively by the interviewees to evaluate their own behavior vis-à-vis sustainability, as well as the behavior of colleagues and the university. Judgement can be realised explicitly through the use of evaluative lexis or implicitly through the use of grammatical resources or ideational content that can be judged normatively (Figure 3). Explicit Judgement can be realised through explicitly evaluative lexical items, e.g. I see them doing things that are good, or by referring to behaviours that will be interpreted positively or negatively according to socio-cultural or other context-dependent norms, e.g. I’m reasonably diligent about remembering to turn my heater off. Implicit Judgement can also be provoked in the absence of evaluative lexis by grammatical resources, such as resources that convey counter-expectancy, e.g. We don’t have a
recycling service, but we recycle everything, or modal auxiliaries, e.g. *I should plant trees*. Implicit Judgement can also be invoked in the absence of evaluative lexis and evaluative provoking grammatical resources by ideational content alone: “the selection of ideational meanings is enough to invoke evaluation, even in the absence of attitudinal lexis that tells us directly how to feel” (Martin & White, 2007, p. 62). Such evaluations are highly context-dependent; thus, with respect to the research project outlined here, participants could reasonably expect that statements aligned to sustainable practices would invoke positive evaluations and vice versa. Thus, the participant who described requesting that her department *buy crockery so [they] could re-use it* could reasonably anticipate that such behaviour would be evaluated positively as proactive, pro-environmental behaviour rather than negatively as haranguing management. Similarly, the interviewee who commented that people use recycling bins could reasonably expect that that behaviour would evoke a positive evaluation.

Lastly, Appreciation, the third region in the Attitude domain, involves “those evaluations which are concerned with positive and negative assessments of objects, artefacts, processes and states of affairs rather than with human behaviour” (White, 2001d, p. 1), however, humans can also be ‘Appreciated’ when the assessment does not involve their behaviour. Appreciation had a high profile across the corpus and, like Judgement, can be realised through the use of attitudinal lexis, indicated by bold font in the examples below, or ideational content, such as:

*There seems to me to be undeniable evidence [of climate change] that is shocking, visually amazing.*

*A terrible future for children is what is driving me.*

*I laugh a bit at this concept of earth hour where it’s a big thing for people not to have their lights on once a year. I think that’s a bit tragic. I think that should be normal.*

*I don’t see many recycling containers on campus.*

*The carpets in here were made of recycled materials.*

5. Discussion

The thematic analysis has revealed that perceptions of sustainability and sustainable practices are diverse and multi-faceted across the university community. Although, responses concerning perceptions of sustainability and sustainable practices pertained primarily to economic sustainability, which outweighed the combined responses pertaining to social, environmental and political sustainability more than threefold. Most of the perceptions pertaining to economic sustainability related to sustainable consumption, eco-efficiency, and sustainable production, and the sustainable practices that the interviewees raised were frequently practices over which they and the university exercised a high degree of agency.

Most interviewees aligned themselves with sustainable practices, but they did so in complex and, sometimes, contradictory ways. Appraisal provided an explanatory and analytical framework to identify and understand the complex ways in which the interviewees were attitudinally positioning and appraising their understanding of sustainability and their views of their own practices, as well as the practices of their colleagues and the university. The evaluative aspects of language outlined by the Appraisal framework were readily located in the interviewees’ responses and the interviewees utilised the resources associated with the three regions of the Attitude domain freely and regularly, as illustrated in the following response.

*There’s a bit of guilt [negative Affect] there because I was getting told off [positive Judgement: appropriateness] for not taking my recycled bag to the shops*
However, I argue that we’ve only had one child [provoked positive Judgement] and I’m one to turn lights out [evoked positive Judgement]. I’m very proud [positive Affect] of our low electricity bills [positive Appreciation] from year to year. And in seriousness, having only one child [provoked positive Judgement] has had a big impact on our carbon footprint [positive Appreciation]. So I use that to alleviate the guilt [negative Affect] that I feel for bringing home plastic bags [evoked negative Judgement] that I do re-use multiple times [evoked positive Judgement].

The complex interrelation of Affect, Judgement and Appreciation can be used to promote solidarity between a speaker and listener or writer and reader. White (2001b) outlines the complex rhetorical function of authorial Affect and argues that through the disclosure of personal emotion the writer / speaker invites the “audience to share that emotional response, or at least to see that response as appropriate and well motivated, or at least as understandable” (White, 2001b, p. 6). He continues, “Once such an empathetic connection has been established, then there is the possibility that the listener will be more open to the broader ideological aspects of the speaker’s position” (White, 2001b, p. 6). This is illustrated in the response above in which the interviewees’ disclosure of guilt followed by statements concerning behaviours and states of affairs that are likely to be appraised positively can be viewed as an invitation to evaluate the cause of the guilt as being mediated, thereby resulting in an overall positive Appreciation of the interviewee vis-à-vis sustainability.

However, not all interviewees sought solidarity and some interviewees’ utilised linguistic resources to establish differentiation and divergence. This was initiated most frequently in response to the topic of climate change. Whilst it could be reasonably expected that acceptance of climate change would be appraised positively in the context of the research project, some respondents rejected the notion and adopted an oppositional stance towards further engagement with the discussion of sustainability, as illustrated in the following response.

You don’t really want my views on climate change! ... I don’t believe in it. ... to say that in this area can almost be ummmm a death sentence because there are people who very very strongly believe that we (pause) we are going through climate change but I believe myself that if you look at things over the years that it’s cyclic ... I’m not a true believer of climate change. I have to be totally honest about that. But is that what we’re talking about here or are we talking about [the university]? ... I’m coming to the end of my time here, some days I think ‘What the Hell! I don’t really care.’

As noted above, most interviewees aligned themselves with the pursuit of sustainability, but the research project identified diverse perspectives and conflicting values across the university. This raises the question of how the university can pursue the key role that has been allocated the higher education sector, while also welcoming and valuing difference. Sustainability leadership offers a way forward. Cortese contends that “sustainability leadership provides a source of hope and opportunity to facilitate institutional renewal and to revitalize higher education’s sense of mission” (2012, p. 23). The importance of leadership was also identified repeatedly in the interviews:

Only leadership, someone has got to provide really strong leadership.

6. Conclusion

The poststructuralist-inspired approach that underpinned the analysis presented here subscribes to the constitutive role of language in the construction of reality. Particular / preferred versions of sustainability and
sustainable practices were talked into being in the semi-structured interviews. These particular / preferred versions of sustainability and sustainable practices concentrated on economic sustainability, especially the key concepts and themes of economic sustainability over which the interviewees, their colleagues and the university exercised a high degree of agency, namely sustainable consumption, eco-efficiency and sustainable production.

The interviewees drew upon a rich repertoire of linguistic resources to reflexively appraise their position vis-à-vis sustainability and sustainable practices, as well as the positions of colleagues and the university. The interviewees deftly utilised resources associated with Affect, Judgement and Appreciation, often to promote solidarity and a positive appraisal of their alignment in relation to sustainability and sustainable practices. Not all interviewees sought solidarity and alignment, however; some utilised linguistic resources to distantiate themselves from the interviewers and the discussion of sustainability and sustainable practices. Thus, the analysis of the semi-interviews identified diverse perspectives and conflicting values across the university, which can potentially impede the university’s participation in the key role ascribed to higher education in the pursuit of sustainability. However, the growing body of scholarship on sustainability leadership offers a constructive way to negotiate the commitment to plurality while pursuing an overt, whole-of-university, sustainability agenda.

7. References


