

ANGLIA RUSKIN UNIVERSITY

LORD ASHCROFT INTERNATIONAL BUSINESS SCHOOL

FACULTY OF BUSINESS AND LAW

**EDUCATION FOR SUSTAINABILITY IN BUSINESS AND  
MANAGEMENT STUDIES: LEARNING HISTORY OF THE  
GOGREEN PILOT'12**

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A thesis in partial fulfilment of the requirements of Anglia Ruskin  
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ANGLIA RUSKIN UNIVERSITY

ABSTRACT

LORD ASHCROFT INTERNATIONAL BUSINESS SCHOOL

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**EDUCATION FOR SUSTAINABILITY IN BUSINESS AND MANAGEMENT STUDIES:  
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**ROMAS MALEVICIUS**

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This doctoral study aims at investigating the contribution of the GoGreen Pilot'12 project in the process of embedding education for sustainability (EfS) in business and management studies in the Lord Ashcroft International Business School (LAIBS) during the period of 2012-2015. The GoGreen Pilot'12 was a project funded by the Higher Education Academy and led by Anglia Ruskin University (LAIBS) in collaboration with National Union of Students (NUS) and the University of Bristol. The main focus of the project was to promote action learning experiences for twelve students in the LAIBS who worked as facilitators of change with twelve third sector organisations in Cambridgeshire. The current study follows a case study approach and used a variety of tools from action research. It adopted learning history, interviews, and a complementary forms of data collection methods to document the participants' personal and professional development during and after the project. The data generated was cross-checked with the University's information, focus groups, semi-structured interviews with students and academics and linked with the existing discussions in the literature. The outcomes of the study correlate with John Dewey's and John Ruskin's school of thought towards the philosophy of education. As a main finding, this research highlights the significance of formal, informal, non-formal, and action learning towards students personal and professional development. Further, this research stresses the importance of visual and creative methodologies in EfS, which can also become transferable skills for employability and professional development as well as reflective learning. Finally, this research demonstrates that small EfS initiatives such as this project can have a significant impact on pedagogical innovations, educational strategy and overall changes in consideration of sustainability in business and management education.

*Keywords: education for sustainability, sustainability, business and management studies, individual learning, action learning.*

**Thesis related outputs:**

(Acevedo, *et al.*, 2012)

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## Acronyms and Abbreviations

<b>ARU</b>	Anglia Ruskin University
<b>DESD</b>	Decade of Education for Sustainable Development
<b>EAUC</b>	The Environmental Association for Universities and Colleges
<b>EfS</b>	Education for Sustainability
<b>EMS</b>	environmental management system
<b>EU</b>	European Union
<b>GI</b>	Green Impact
<b>GSI</b>	Global Sustainability Institute
<b>HEA</b>	Higher Education Academy
<b>HEFCE</b>	Education Funding Council for England
<b>IEMA</b>	Institute of Environmental Management and Assessment
<b>LAIBS</b>	Lord Ashton International Business School
<b>NSS</b>	National Student Survey
<b>NUS</b>	National Union of Students
<b>PRME</b>	Principles of Responsible Management Education
<b>QAA</b>	The Quality Assurance Agency
<b>REF</b>	Research Excellence Framework
<b>UCAS</b>	Universities and Colleges Admissions Service
<b>UN</b>	United Nations
<b>UNECE</b>	United Nations Economic Commission for Europe
<b>UNECE</b>	Economic Commission for Europe
<b>UNEP</b>	United Nations Environment Programme
<b>UNESCO</b>	United Nations Educational, Scientific and Cultural Organisation
<b>WCED</b>	World Commission on Environment and Development

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# Chapter 1: Introduction

## 1.1 Introduction to the research

The basis of this research is to investigate the impact of the GoGreen Pilot'12 project in view of education for sustainability (EfS) in business and management studies in the Lord Ashcroft International Business School (LAIBS) during 2012-2015. As a broad perspective, by using case study approach, the researcher aims to understand how ARU is trying to embed sustainability into its activities.

## 1.2 Rationale

The world population increasing around 1.18% annually that adds additional 83 million people every year (UN, 2015). With an additional 2.3 billion people are expected to be added in just 35 years, the existing global society facing with many challenges such as food security, financial instability, social development and public health, climate change and natural resource scarcity (Glenn and Florescu, 2015; Hutt, 2016). To address these challenges, new systems and views will be needed for food, water; protecting and managing natural resources for economic and social improvements; education, health, and global governance. With this in mind, the notion of sustainability becomes a part of the global agenda and has been widely recognised as a global strategy to ensure human well-being and social equity, economic development while reducing environmental risks and ecological scarcities for a current and new generations (HMG, 1999; UN, 2002b; UNEP, 2013).

The sustainable development paradigm has been the subject of debates and controversy since its introduction in 1987 (Dresner, 2002; Lélé, 1991; Robinson, 2004). The Brundtland Report (WCED, 1987, p.43) refers to sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. It has proven to be a significant framework frequently used in national and international political agendas, building awareness, strategies and action plans in addressing global challenges (HMG, 1999; 2005; UN, 2002b).

Despite critique of Brundtland definition for sustainable development as a ‘*smokescreen*’ put up to obscure the conflicts between ecological integrity and economic growth it has reached a wider audience and gave inspiration to economist and ecologists, industrialist, naturalists, pragmatists, scholars and philosophers (Jacobs, 1999). Everyone seems to

interpret the concept of sustainable development to suit their goals, reflecting different worldviews (Carroll, 2002; Lafferty and Langhelle, 1999; Redclift, 2005). As the common ground, scholars agreed that sustainability requires a stability between ecological, social and economic challenges and that none of them should be sacrificed for any of the others (Edwards, 2006; Levett, 1998; Mebratu, 1998).

Since the introduction to the sustainable development, education has played an essential role in various political agendas that are seen as a catalyst for transforming societies' attitudes, values and aspirations towards a just, sustainable future (WCED, 1987). This is evident in the World Commission on Environment and Development Report: Our Common Future (WCED, 1987); *Agenda 21* – the global action plan for sustainability at the United Nations (UN) Conference on Environment and Development and mainly *Chapter 36* was dedicated to promoting education, public awareness and training (UNCED, 1992). Though, EfS received national and international attention in 2005 after the UN published *2005-2014 United Nations Decade of Education for Sustainable Development* ( UNDESD) (UN, 2002a; UNESCO, 2005). It was the first UNESCO (United Nations Educational, Scientific, and Cultural Organization) international implementation scheme aiming to raise public awareness of and broader participation in EfS at all levels of education.

Also, in 2005, the United Nations Economic Commission for Europe (UNECE) published the *Strategy For Education for Sustainable Development* (UNECE, 2005). Both publications emphasised education as a crucial element for achieving sustainability. This requires a multi-stakeholder cooperation and partnership and encourages to take actions towards reorienting education towards sustainability (UNECE, 2005; UNESCO, 2005).

Similarly, to sustainable development, there is no succinct and concrete definition of EfS. However, the concept itself is formed on “values, with respect at the centre: respect for others, including those of present and future generations, for difference and diversity, for the environment, for the resources of the planet” (UNESCO, 2010, p.14). As education takes place within a dominant culture, social and political context, discussions of EfS highlights the importance of EfS in addressing current issues that should apply to daily life, whether personal or professional and culturally and locally relevant regarding context (UNESCO, 2005).

Sterling (1996; 2001; 2010) highlights the need for a new transformative paradigm for education and stresses that education must itself be transformed if it is to be the transforming. Therefore, learning for EfS should be built on collaboration,

interdisciplinary, multi-method and holistic approach; fostering critical and system thinking, innovation and creativity, problem-solving, active and participatory learning. (UNESCO, 2005; 2012). EfS appeals to all, including governments, non-governmental organisations, scientific community. Education system, in particular, higher education plays a fundamental role in perusing sustainability. First, through research by fostering knowledge and understanding linked with current sustainability challenges that society is facing. Second, raising awareness about sustainability through teaching. Providing skills, knowledge and attributes for the current generation to put sustainability into practice (UN, 2012b; UNESCO, 2012).

The United Kingdom government has been engaging in environmental conservation since the early 1990s, and in 1994 it became the first European Union (EU) member to publish a sustainability strategy. Hence, EU has been criticised having troubles defining sustainable development and lacking sufficient integration between the different administrative mechanisms, tools and processes to pursue sustainability (Russel, 2007). Since 2000, the Higher Education Funding Council for England (HEFCE) has been involved in the sustainability agenda in the UK education system. It provides green funds, supports carbon management plans and encourages reporting of environmental information. In 2005, with the publication of the Sustainable Development Strategy by the central government (HMG, 2005), HEFCE published its first sustainable development strategy for higher education. Five years later, in 2010, Carbon reduction target and strategy for higher education in England (HEFCE, 2005; 2010; 2013).

The education system does not exist on its own. It is linked with continually changing the social, cultural, and economic system. Therefore, sustainability in higher education should address the social, environmental and economic issue in higher education activities: from organisational ethos, operations, research, pedagogy and formal and informal curriculum (Gomez, *et al.*, 2014). The scholars in sustainability and EfS research stresses the need of rethinking the purpose of the higher education and to what extent its contribution towards social development (Conway, 2012; Osman, *et al.*, 2014; Van Weenen, 2000). The available evidence suggests that in perusing sustainability, there should be innovative, systemic, holistic, interdisciplinary, transformative change of current higher education institutions that is grounded on the shift of epistemology (Sterling, 2010; 2013; Tilbury, 2011; Tilbury and Wortman, 2008). Consequently, embedding sustainability in higher education institutions suggests that it cannot be seen merely as an add-on to the existing educational system whether the focus on “greening” the operations or curriculum, it requires the present paradigm changes and overall cultural change (Sterling, 1996).

Researchers on EfS refers to education as part of the problem (Orr, 2004) and the solution (Sterling, 1996). University-educated people with a bachelor's, master's degrees have been accountable for poor political decisions, environmental degradation, unsustainable and unjust socio-economic development (Corcoran and Wals, 2004; Orr, 2004). Thus, EfS has been influenced by overlapping paradigms. Starting from 'dominant social paradigms' that are grounded in technocentric, reductionist and materialistic views and the 'new environmental paradigm' with democratic, ecocentric, socially inclusive and integrative approaches (Sterling, 1996). However, the mainstream literature on EfS (for example Jones, Selby and Sterling, 2010; Sterling, 2012; Tilbury, 2011) highlights the importance of embedding EfS in higher education institutions. EfS is considered an innovative, integrative, critical thinking, engaged and participative with the local social, economic and ecological context and community, emphasising lifelong learning from individual and institutional perspective (Tilbury, 2013). With the latter in mind, as highlighted by Sterling (1996), education plays a fundamental role as *agent to change* towards just, respectful and sustainable society that has been addressed in various national and international agendas (for example see DfES, 2003; HMG, 2005; UNCED, 1992). Consequently, sufficient consideration must be given to higher education as a *subject of change* itself from worldviews to actual practical application to ensure the sustainable future for present and current generations (Tilbury, 2011).

Therefore, in this thesis, EfS is expressed as a journey, constantly evolving learning process questioning, critically accessing the existing patterns, practices, and worldviews. It opens up for a new creative, innovate ways of generating knowledge and understanding about sustainability issues, and eventually that contributes towards society transformation (Sterling, 2010).

Many scholars agree that higher education has a critical role to play primarily in developing forthcoming leaders and decision-makers and through research building knowledge to lead for the sustainable future (Osman, *et al.*, 2014; Sterling, 2013; Tilbury, 2013). Therefore, grounded on national and in international sustainability initiatives higher education institutions have signed various international declarations showing their commitments towards sustainability: greening their estates and operations, working on public engagement, research, teaching and curriculum (Wright, 2004). Similarly, in the UK, higher education institutions are pressurised by the UK government and its bodies to follow a sustainability pathway (HEFCE, 2005; 2008).

Though, continually changing socio-economic environment drive universities to deal with current encounters such as a position in the league tables, National Student Survey (NSS), Research Excellence Framework (REF), students' numbers, accreditation



bodies. Hence, sustainability as a principal means for conversations, policy-making and practice has been pushed to the shadows (Sterling, 2013). Next to it, as highlighted earlier, interpreting sustainability concept and practical application of it could be seen challenging due to crowded curriculum; perceived irrelevance by academic staff; limited staff awareness and/or expertise; limited institutional drive and commitment; limited commitment from external stakeholders (employers, professional bodies, etc.) and seen as too demanding (Dawe, Jucker and Martin, 2005; Sterling, 2012). Sceptics view the sustainability agenda in higher education institutions as an ideology and, by endorsing it, it is not the main purpose of a university (Jickling, 1992). However, research by the National Union of Students (NUS) and the Higher Education Academy (HEA) shows that students want to learn more about sustainability and eight out of ten students think that sustainability should be incorporated and promoted in universities' activities (Drayson, 2015b; Drayson, *et al.*, 2013). Similarly, this view resonated with the supporters of the green economy (UNEP, 2013).

To pursue sustainability in the higher education sector in the UK does not appear a straightforward approach and as outlined by Wright (2004, p.9) "embedding of education of sustainable development in English higher education is a complex, largely decentralised, and multi-stranded process". Scholars have criticised higher education institutions of having a considerable degree of autonomy about curriculum and course development (Sterling and Scott, 2008). Traditionally, universities are unwilling to follow the direction from the central government about teaching and learning policies and practice (Sterling and Scott, 2008). Various scholars agree that there is a need for structural and holistic transformation of universities towards sustainability (Bowers, 1997; Sterling, 1996; 2001; 2003) and including business schools (Springett, 2005).

Business and management education in Europe appeared only after the Second World War. First business schools were set up in France and Germany in the late 19th century, at the same time when Harvard business school was founded in the United States. In the UK business schools as certified formal education institutions based initially in technical colleges that became universities only in 1992. Different from business schools in Europe, until the last decade business and management education in the UK took place distant from the elite universities as was not considered equal to other disciplines (Starkey and Tiratsoo, 2007). Furthermore, Springett (2010) and Ghoshal (2005) describes business schools' environment as inflexible regarding embracing new theories, programmes or courses and being slow in adjusting to the students' needs. The authors draws a sceptical view regarding sustainability programmes being implemented

into business schools' curriculum due to lack of research and because of critical/reflective perspective in management studies.

In this thesis, main attention is paid to the case study of LAIBS. Next to, business schools, as on its own institution, majority business schools in the UK are a branch of universities. In the case of LAIBS, this post-1992 business school operates under the wing of ARU's strategic policies and regulations such as Corporate Plan, Learning and Teaching regulations are similarly applied to the LAIBS.

### **1.3 Research aims and objectives**

This thesis aims to examine the sustainability project GoGreen Pilot'12 as a part of a practical initiative of EfS in business and management studies in LAIBS, ARU. The GoGreen Pilot'12 is a project funded by the Higher Education Academy and led by LAIBS in collaboration with NUS and the University of Bristol. The primary focus of this project is the application of the "Green Impact" workbook (provided by NUS) for improving environmental practices in the third sector organisations in the Cambridgeshire. This involves twelve LAIBS students working as eco-auditors, supported by a group of academics, who received training from the NUS to support twelve third sector organisations in Cambridgeshire to complete a specially designed workbook to implement pro-environmental actions.

The GoGreen Pilot'12 involves different participants, their views and interpretations of the GoGreen Pilot'12 as a part of EfS in business and management studies in 2012-2015, which needed a broader, exploratory investigation. To capture the key actors' views as an epistemological viewpoint, the interpretative approach is considered. In the line of this approach only through the subjective interpretation of an intervention in reality that reality can be fully understood, and where the social world is viewed as "an emergent social process which is created by the individuals concerned" and cannot be viewed through the positivistic lens (Burrell and Morgan, 1979, p.28). In this research, a qualitative approach is undertaken where the subjective nature of reality is emphasised, and the main aim is to view such events through the eyes of the people who are taking part in the GoGreen Pilot'12 and other stakeholders' perception of reality about EfS and management studies.

Considering the research objectives and questions, there are three levels of research design (Figure1.1). At the Macro level that is exploring sustainability agenda in ARU, and which secondary data were used such as research papers, policies, reports on

sustainability and EfS. Meso level includes individual interviews with the key stakeholders linked with EfS. At the Micro level that is exploring learning of the key partners that took part in the GoGreen Pilot'12 during 2012-2015 and project contribution to learning and teaching in view of EfS in LAIBS. For this purpose, this research adopted the learning history, as a tool for collecting data in combination with individual interviews.

The GoGreen Pilot'12 is the first pilot project of its scale, and the key stakeholders were working together for the first time. The researcher decided it to use the learning history as a method of collecting data to document the entire process of the project. As defined by Parent and Béliveau (2007, p.73) a learning history is “designed to allow recognition of what has been learned in the past to guide stakeholders in the dialogical generation of a new future”. Founded in 1994, learning history is a qualitative research method that considers human perceptions, actions, opinions and evaluations. The study aims to use learning history as a snapshot in time before, during and after the project, but not to interfere with the project outcomes. Next to documenting participants' development (learning process) in this project. To capture the learning history of the GoGreen Pilot'12 next to the traditional techniques such as focus groups other techniques for data gathering were used, for example drawings, pictures and video recordings. This is a unique contribution to the method that has not been identified in literature linked with the learning history method and EfS in business and management studies.

The primary purpose of this research is to investigate the contribution of the GoGreen Pilot'12 in view of EfS in business and management studies in LAIBS in the period of 2012-2015. The research aims to investigate the application of the EfS agenda in teaching and learning practice at ARU, and its impact to the different stakeholders, especially on students' personal and professional development. Overall, Figure 1.1 shows the Macro, Meso and Micro levels and dimensions of this research. Through holistic, systematic lens, this research aims to document learning and change at three levels of social construct, such as organisation (LAIBS), groups (GoGreen Pilot'12) and individuals (academics and students). As mentioned earlier, EfS is always evolving concepts and various learning opportunities should be considered when embedding EfS in higher education. Therefore, based on the work of La Belle (1982) and Mocker and Spear (1982) formal, informal, non-formal and self-directed learning of GoGreen Pilot'12 participants is explored. Eventually collaborative approach can assist higher education institutions to construct stronger, innovative and more sustainability oriented organisations (Lozano, 2008; Sterling, 2010). Summarising, the fundamental research question and objectives are as follows:

**RQ. How can EfS in higher education institutions in the UK be explored in an integrated, holistic and systemic manner for the benefit of its different stakeholders?**

1. To investigate actions about EfS in the ARU and Lord Ashcroft International Business School (LAIBS)
  - a) What are the main opportunities and barriers to embedding EfS in ARU and LAIBS?
  - b) How is ARU embedding sustainability in its activities?
2. To explore participants' experience in LAIBS sustainability initiative titled the GoGreen Pilot'12:
  - a) How did the GoGreen Pilot'12 contribute to teaching/learning in EfS in the Business School?
3. To focus on the impact of the GoGreen Pilot'12 concerning the development of EfS practices in ARU:
  - a) How did the GoGreen Pilot'12 contribute to participants' personal and professional development?

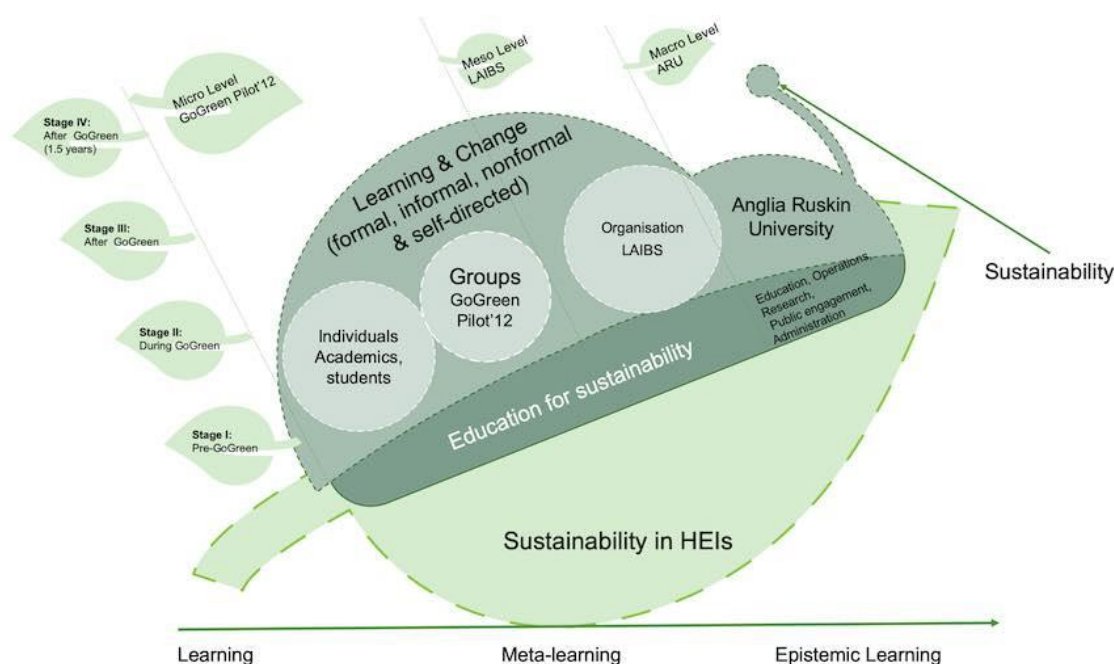
Although there has been growing efforts in greening campus activities (Wright, 2004), business schools face the challenge of actively embedding EfS into their curriculum and research activities (Ghoshal, 2005; Springett, 2010). This thesis aims at offering some ideas on how this can be done throughout the focus on the particular case study of GoGreen Pilot'12.

As follows, this research will present a critical revision of the international and national aspects of sustainability and EfS. Further, it explores the initiatives undertaken towards curriculum development in business and management schools. By exploring organisational learning towards sustainability and higher education, this study will introduce the conceptual framework investigating EfS in higher education. In summary, and drawing upon a critical literature analysis, researchers have identified three gaps in the current study of the education for sustainable development embedding into the business and management studies in the UK:

**The first gap** is the lack of empirical research concerning the actual implementation of the sustainability agenda into business and management studies premised in the higher education institution environment (Baden, 2013; Springett, 2005; Springett, 2010). Some work has been done in proposing theoretical frameworks and guidelines aimed at embedding of EfS in higher education institutions (see Muff, *et al.*, 2013; UNPRME, 2013). A critical analysis of the available literature confirms that there is a gap in current research of practical application of experiences and programmes on EfS in business and management. Springett (2010) and Ghoshal (2005) presents a sceptical view regarding sustainability programmes to be implemented into business schools' curriculum. Lack of research and lack of critical and reflective perspective in its correspondent discipline seems are dominant barriers for EfS in higher education.

**The second gap** concerns the initiatives implemented to establish EfS beyond formal education that usually is associated with the primary curriculum. Based on the work of La Belle (1982), formal education – as curriculum activities and research - need to be complemented with informal education or informal curriculum. However, in practice, there are few examples of how sustainability is included in non-formal educational activities. This research also aims at assessing the importance of informal and non-formal learning, and its contribution to the learning process and change. This links with investigating the GoGreen Pilot'12 as a case of formal, informal and non-formal and self-directed learning in view of EfS. Organisational and group learning also taken into consideration (see Figure1).

**The final gap** relates to how sustainability is included in current learning and teaching methods and curriculum development. This research questions the content and delivery of the curriculum about sustainability. It aims to investigate visuals and creative methodologies in EfS and contribution towards individuals' learning experience and reflective practice. By focusing on analysing Macro, Meso and Micro levels, this research aims to address the gaps mentioned above.



**Figure 1.1: Levels and dimensions of this research**

## 1.4 Structure of the thesis

Chapter 1 provides an introduction to the research. It highlights the main aims and objectives of the research including the main gaps identified in the body of knowledge linked with sustainability and EfS and linking with business and management studies. Chapter 2 discusses the roots of sustainability in international dimensions. It is a historical overview of UN and UNESCO documents, which are the outcome of various conferences linked with sustainability and education. Chapter 3 is dedicated to higher education institutions' (including business schools) response to EfS. It starts with the analysis of various agreements and declarations signed by universities related to sustainability in higher education. Chapter 4 includes a discussion on organisational learning in higher education institutions and how it contributes to the sustainability agenda. Based on the investigation in Chapters 2 and 3, the conceptual framework investigating EfS will be introduced. Chapter 5 highlights the methodological approach used in this research. Here, the philosophical position is underlined and related to an interpretivist approach. The relationship between the methods to be used, data types collected, and a drawn timescale of the research is outlined before the data handling, and analysis processes are developed. The chapter finishes with justification of the suitability and reliability of the methods used along with ethical considerations and how they will be handled. Chapter 6 outlines Micro level findings from the research dealing with ARU and sustainability. Chapter 7 highlights the findings from Meso level of the

study followed by the last level of the research GoGreen Pilot'12 – Chapter 8. It outlines findings from the four stages of the research that includes participants professional and personal development before, during, after the project and 1.5 year later. In Chapter 9 discussion and conclusions of the research are presented. It reflects research aims and objectives and identifies the main contribution to the knowledge followed by implications for further research.

## **Chapter 2: Higher education and sustainability**

### **2.1 International dimensions - pre-Brundtland period**

The notion of sustainability has its roots in the environmental movement. The early 1970s saw an increase in the environment and human activities (Wals and Corcoran, 2006). Since the Stockholm Declaration in 1972, there has been a steady development in national and international declarations linked with sustainability and its relevance to higher education institutions (Wright, 2004).

The Stockholm Declaration discussed the interdependency between humans and the environment and the notion of intergenerational equity (Wright, 2004). It is specifically related to educational institutions. Principle 19 stated the need for environmental education for all age groups “to broaden the basis for an enlightened opinion and responsible conduct by individuals, enterprises and communities in protecting and improving the environment in its full human dimension” (UNEP, 1972, Principle 19). The Stockholm Declaration brought attention to environmental issues (including environmental education) at national and international levels (Lozano, *et al.*, 2013).

After the Stockholm conference, there have been some environmental education conferences and declarations that influenced sustainability in higher education and international environmental education. For example, in 1975, in Belgrade, United Nations Educational, Scientific and Cultural Organization (UNESCO) together with United Nations Environment Programme (UNEP) presented the Belgrade Charter: A framework for environmental education (UNESCO-UNEP, 1975). Professionals in the academic field have generally accepted the charter’s goal statement for environmental education. The charter states:

The goal of environmental education is to develop a world population that is aware of, and concerned about, the environment and its associated problems, and which has the knowledge, skills, attitudes, motivations, and commitment to work individually and collectively toward solutions of current problems and the prevention of new ones (UNESCO-UNEP, 1975, p. 3).

The Tbilisi Declaration, 1977, resulted from the first UNESCO/UNEP International Conference on Environmental Education. It was one of the most critical events in the development of international sustainability declarations related to education, and it is considered one of the starting points for formal international environmental education initiatives (Wright, 2004). This declaration influenced the fundamental elements of sustainability (Sauvé, 1996, p.8):



- The need to consider social aspects of the environment and consider the close links between economy, environment, and development;
- The adoption of both local and global perspectives;
- The promotion of international solidarity;
- Considering future generations;
- The need to create new patterns of behaviour of individuals, groups, and society towards the environment.

It specified that to develop a better understanding of the human environment relationship. According to the declaration, environmental education should be provided to people of all ages, all levels of academic aptitude and must be delivered in both formal and non-formal environments. The Tbilisi Declaration (UNESCO-UNEP, 1977) appealed to higher education to implement environmental education within the framework of the general university:

Universities as centres for research, teaching, and training of qualified personnel for the nation - must be increasingly available to undertake research concerning environmental education and to train experts in formal and non-formal education.....Besides subject-oriented environmental education, interdisciplinary treatment of the basic problems of the interrelationships between people and the environment is necessary for students in all fields, not only natural and technical science but also social sciences and arts, because the relationship between nature, technology and society mark and determine the development of the society (UNESCO-UNEP, 1977, p.33).

Furthermore, this declaration asked universities to engage in endorsing sustainability initiatives internally and externally. Internally, universities should consider the development of curricula, engage members of staff in environmental awareness and provide training. Externally, universities are encouraged to take part in international and regional cooperation projects and inform and educate the public about environmental issues. Overall, the Tbilisi Declaration took international and holistic views of the environment in view of higher education (Wright, 2004).

Because of the increasing concern with environmental problems, there was a need for a broader strategy for addressing environmental aspects of development from a social, economic and political perspective (Redclift, 2005). In 1983, the UN set up an independent body called The World Commission on Environment and Development (WCED), which, in 1987, published the report *Our Common Future* (WCED, 1987). The commission stressed that environmental issues are usually separated from development issues and criticises the narrow view of environmental policy, which refers to the *environment* to the subordinate status. According to WCED (1987) sustainability refers to:

- (a) The need for reconciliation between economic development and environmental conservation;
- (b) The need to place any understanding of environmental concerns within a socio-economic and political context;
- (c) the need to combine environment and development concerns.

Also, this report presented the definition of sustainable development known as the Brundtland definition:

The sustainable development is a development that meets the needs of the present without compromising the ability of future generations to meet their own needs (WCED, 1987, p.43).

The concept of sustainable development by the WCED has proven to be a significant overarching framework for future sustainability declarations and policy at all governmental levels (Mebratu, 1998).

## **2.2 International sustainability and EfS movement - post-Brundtland period**

In 1992, the UN Conference on Environment and Development took place in Rio de Janeiro focused on issues of environmental sustainability and actions to different disciplines and fields (Wright, 2004). The outcome of the conference was Agenda 21. Chapter 36 Education, Awareness and Training of Agenda 21 was dedicated to sustainability in education (UNCED, 1992). Chapter 36 echoed fundamental principles from the Tbilisi Declaration and showed a lack of environmental awareness and recognised formal and informal education as a solution to environmentally unsustainable behaviour. It called for reorienting education towards sustainability; increasing public awareness of environmental issues and promoting environmental training among educators in environmental issues (Lozano, *et al.*, 2013). Chapter 36 encouraged governments to design their own programmes according to their specific needs, policies and responsibilities. Education as a strategy to promote sustainability in educational institutions is found in each of the post-Rio UN Conferences in the 1990s (UNCED, 1992).

Ten years after the publication of Agenda 21, in 2002, The World Summit on Sustainable Development was held in Johannesburg, South Africa. During this conference, sustainability was reaffirmed as a central component in dealing with poverty, especially

in developing countries and managing natural resources. Resulting in the Johannesburg Plan of Implementation in December 2002, the UN General Assembly adopted resolution 57/254 to start the Decade of Education for Sustainable Development (DESD) (DESD, 2005). Later conferences on sustainability organised by the UN (e.g. Rio 20+) echoed principles published in the DESD.

In June 2012, the UN organised the UN Conference on Sustainable Development (Rio 20+), which took place in Rio de Janeiro. The main aim of Rio+20 was to assure renewed political commitment to sustainability, assess progress, and address new and emerging challenges. One of the outcomes of the conference was sustainability goals agreement among government leaders presented in the document *The Future We Want* (UN, 2012b). Those goals are linked to sustainability embedding them into governments' strategy and policy, civil society and private sector over the next two decades. Since Agenda 21 (UNCED, 1992) the vision of sustainability was seen impossible without education. Rio+20 presented purposes of EfS, and calling for a change in the educational system:

(EfS) ...aims at enabling everyone to acquire the values, competencies, skills and knowledge necessary to contribute to building a more sustainable society. This implies revising teaching content to respond to global and local challenges. It should also promote teaching methods that enable students to acquire skills such as interdisciplinary thinking, integrated planning, understanding complexity, cooperating with others in decision-making processes, and participating in local, national and global processes towards sustainable development (UN, 2012a).

Thus, in the Rio+20 document *The Future We Want*, governments agreed to support educational institutions to carry out innovation and research for sustainability. Also, to develop programmes connecting skills gaps for enhancing national sustainability goals. It stressed that universities are vitally important in building more sustainable societies and creating new paradigms, and they should take leadership on EfS (UN, 2012b).

The leaders of the international academic community were encouraged to sign Rio +20 outcome document *The Future We Want* Declaration. It promoted the development of sustainable practices for higher education institutions. The declaration sets up key goals, and one of them is to foster notion of sustainability (UN, 2012a). Even though in Rio+20 educational institutions were encouraged to adjust teaching content and methods to current needs and to tackle local and global problems, the primary attention in this declaration is focused on formal education. Also, the declaration highlighted the importance of developing employability skills and having knowledge of being responsible global citizens.

...ensuring that they form a part of the core curriculum across all disciplines so that future higher education graduates develop skills necessary to enter sustainable development workforces and have an explicit understanding of how to achieve a society that values people, the planet and profits in a manner that respects the finite resource boundaries of the earth (UN, 2012a, p.1).

Moreover, the declaration called for enhancing research on sustainability issues, green campuses, supporting sustainability efforts in communities, and engaging with and sharing results through international frameworks (UN, 2012b). In view of sustainability, it is essential to broader examine the concepts of education and learning. The following chapter underlines the origin of education and learning and how it relates to sustainability.

## **2.3 Education and learning and link with sustainability**

### **2.3.1 Education**

Researchers recognise education as an significant concept in social development as it is future-orientated, even studying the past involves development and growth (Jeffs and Smith, 2005). For instance, in the late nineteenth century, an educator John Hart (1875) stressed the importance of education and being a comprehensive educator, linking it with gradually (in a systemic way) developing moral and emotional humans; admitting the complexity of nature and knowledge *"is to the ... mind what food is to the body ...it is to cause growth"* (Hart, 1875, p.273). Other scholars link education as an essential part of sustainability (Edwards, 2006; Scott and Gough, 2003). For instance, Martin *et al.* (2013) emphasised that education should focus on the links between the quality of the environment and human socio-economic development. Edwards (2006, p.23) in his book *The Sustainability Revolution: Portrait of a Paradigm Shift* underline the significance of education in tackling global challenges:

Through the education, we can gain knowledge with which to overcome the cognitive and normative – and hence emotional – obstacles to understanding our global dilemma. Through the education, sustainability can become firmly established with the existing value structure of societies while simultaneously helping that value structure evolve towards a more viable long-term approach to systemic global problems.

The main discussion about education is linked with methods of teaching and learning, self-learning, transferring knowledge, values and skills that traditionally occur in institutions of education such as school, colleges or universities. In this research, education is viewed, from a broader perspective, as a process that promotes learning

and narrowing down to the educational institution. In this work, the main focus is on higher education institutions that can play an essential role in promoting and implementing sustainability into their activities and helping to raise a new generation with a sustainability mindset.

Education is viewed as a part of the socialisation process that is associated with a lifelong learning concept occurring within and beyond the educational institutions' boundaries (Blewitt, 2013). There is a growing universal agreement that ideally, concepts should strive to evolve lifelong learning systems designed to provide every individual with a flexible and diversified range of useful learning options through a person's lifetime. Any such system should have synthesised characteristics of informal, formal and nonformal education. The interaction between these modes will cause an individual's constant engagement in different learning experiences from the planned, compulsory and intentional to the unplanned, voluntary and incidental. It could be seen as an advantage for individuals to find out their own most beneficial way of educational influence. For educational institutions, the synthesis of typology may be used to construct a more rational educational theory and practice for the future (La Belle, 1982). La Belle (1976) suggested considering formal, informal and nonformal education as main educational modes rather than discrete entities. There are different views regarding functions of education that resonance with the notation of EfS, for instance, Sterling (2001, p. 43) classifies the main four:

1. The socialisation function - to replicate society and culture and to promote citizenship.
2. The vocational function - to train people for future employment.
3. The liberalisation function - to help people develop their potential
4. The transformative function - to encourage change towards a fairer society and a better world.

Education involves activities that are intended to stimulate thinking; it is equated with learning, regardless of where, how or when the learning occurs (Jeffs and Smith, 2005). Traditionally, education is linked with educational institutions and learning is seen as individual development. Because of economic benefits and social development, there is an emphasis on formal education. However, learning is a natural process, and it is a primarily social activity that starts before entering any educational institutions such as nurseries, schools, or university. For example, learning to talk and to walk could be considered the first learning achievements. Also, as Knapper (2006, p.1) identified, through learning, societies are "able to construct new knowledge and, though sophisticated cultural mechanisms, to pass on to others the accumulated wisdom of

previous generations” - in other words saying that learning is essential for humans’ survival and prosperity. The significant point here is that learning could manifest at the daily basis through interaction with others, either directly or indirectly, and it does not always have to be directly linked with a formal educational environment (Cameron and Harrison, 2012). However, educational institutions are considered as the central structured learning system that gives accreditation of individuals gained knowledge, which is mainly allied with the teaching of formal education (Jefferies and Smith, 2005). Looking at the broader perspective of learning it is worth to look beyond the main curriculum activities in educational institutions that could also enhance learning.

### **2.3.2 Learning**

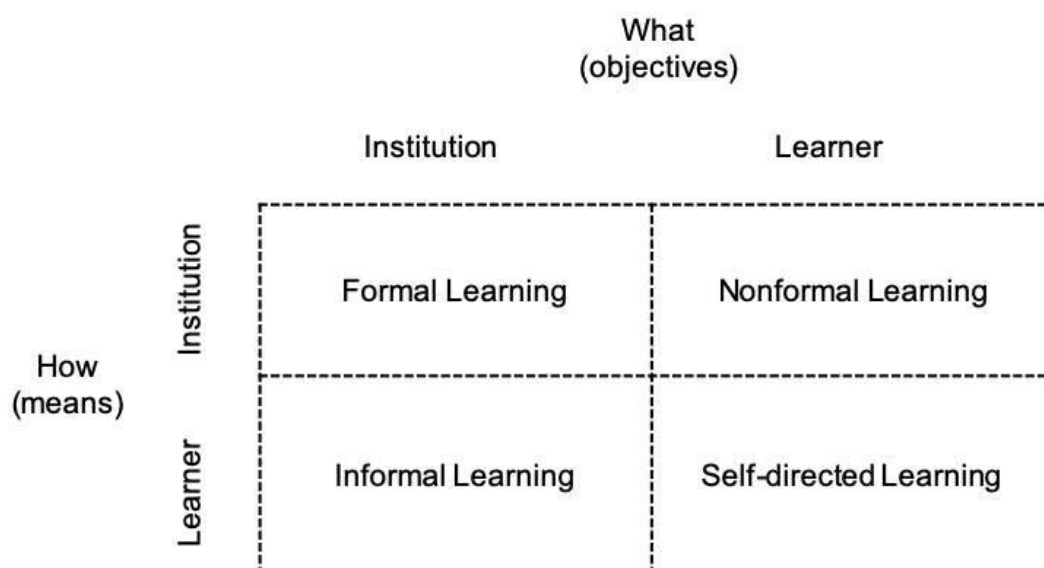
In a different rather than a traditional view of learning and teaching, the learner is viewed as “active constructors, rather than passive recipients of knowledge” (Brown, 1994, p.6). Learning is an active process, and it involves a change of behaviour as Mazur (1998, p.1) defines learning as a “process of change that occurs as a result of individual experience”. Mazur (1998) not only emphasises learning as a process but also stresses the importance of the product of learning – learning that caused long-term changes in an individual’s attitudes, values, and beliefs. Lozano (2008, pp.499-500) calcified the main attitudes linked with learning about sustainability. For an individual to change, there needs to be a congruence between a) the informational - the process from change in information through learning (i.e., increase in knowledge); b) the emotional - changes in emotional attitudes (i.e., awareness of what sustainability is); and c) behavioural attitudes (i.e., actions for sustainability).

Regarding learning as a process, Illeris (2004, p.81) identifies two fundamental types of learning processes. Firstly, in agreement with Knapper (2006), learning is viewed as an external interaction process between the learner and surrounding environment. It could be described as any social, cultural, or material environment. Secondly, the learning process involves the learner himself, which could be outlined as an internal psychological process of amplification and acquisition, resulting from the previous learning experience.

Illeris (2004) distinguishes that any learning experience includes three critical dimensions. One of them is the cognitive dimension of knowledge and skills that support the development of the understanding and the competences of the learner which could be used in dealing with future challenges, making day-by-day decisions or life-changing goals in a personal and professional environment. Another dimension of learning is the emotional dimension. It is related to feelings, emotions and motivation assisting to

strengthen the mental balance of the learner and enhancing personal sensitivity. The first two dimensions are linked with internal psychological processes, while the social dimension is related to the external assimilation such as participation, communication, and cooperation. It shows learners' ability to integrate into society and the community. Overall, these learning dimensions are interrelated with each other, and they could influence the product of learning (change) that has been discussed earlier.

In relation to La Belle (1982), Mocker and Spear (1982) presented a conceptual model of lifelong learning, which is based on the goals and means of learning. This could be seen as an expansion of Illeris's (2004) social dimension of learning. Mockcker and Spear's (1982) conceptual framework has identified the inter-relationship between learner and institution. It was presented as a two-by-two matrix (Figure 2.1). Mocker and Spear (1982) map out four key social situations of learning: formal (learners have little control over the objectives or means of learning); non-formal (learners control the objectives but not the means of learning); informal (learners control the means but not the objectives of learning); and self-directed (learners control both the objectives and means of learning).



Adapted Mocker and Spear (1982, p.4)

**Figure 2.1: Lifelong learning model**

The concept *lifelong* learning has no age restraints, it is also not bonded with any particular institution, single programme or legislation. It is a composite of many pieces of legislation, programmes, work of educational institutions (universities, schools, etc.) and learner-initiated activities (Mocker and Spear, 1982). However, educational

institutions could be a part of significant changes in an individual's behaviour, values and beliefs and make a footprint in a person's development in the long run. As far as formal education is concerned, it provides structured programmes, which foster the learning process, but in an educational institution environment formal curriculum it is not the only source of learning. It is essential to look beyond the main curricular activities that also could influence the lifelong learning experience.

The concept of lifelong learning is one of the dominant themes of sustainability and EfS that stretch the boundaries beyond the formal curriculum in educational institutions' environment (Knapper, 2006). Other concepts of learning are closely linked with EfS.

For example, Warburton (2003) suggests a teaching strategy for the EfS. The concept is called **deep learning** in contrast with surface learning. The author argues deep learning stimulates systems, and holistic thinking, its interdisciplinary approach that helps the student to extract the meaning and understanding from the curriculum and experiences. "Critical awareness of the key concepts and the scope, limitations and complementary of different disciplinary paradigms" (Warburton, 2003, p.45) should be considered when learning about sustainability.

**Transformative learning**, a concept developed by Mezirow (2003), represents a qualitative shift in fixed assumptions, mind set and expectations to be more comprehensive, open, reflective and emotionally able to change. This helps the learner to reframe beliefs, understandings and opinions that will bring more consideration and justification in projecting further actions. This concept refers to broader individual transformations like personal values and standards; interpersonal relationships to broader like political orientations, cultural bias, ideologies, religious doctrine and moral-ethical norms, etc. To pursue sustainability in education, Sterling (2010) emphasised the need for implementation of transformative learning in higher education institutions. Even though it is considered challenging for individuals and institutions transformative learning addresses the learning experience beyond the cognitive dimension (which is traditionally seen as the core of teaching).

Rogers (1994 cited in Sterling, 2010, p.26) expands on Illeris's (2004) ideas on learning that have more of a transformative learning concept approach, which go gradually after one another. Rogers (1994) agrees that the cognitive dimension of learning is a fundamental of teaching; he also suggests there is the *effective dimension* when gained knowledge moves to a personal level, which also involves emotions. An *existential dimension*, where individuals question their own values and how they see themselves in society might challenge a rethink of their own sense of self. After existential dimension,



an *empowerment dimension* follows that involves a sense of responsibility, obligation and direction, which transforms into action dimension that is associated with the development of choices at personal, social and political levels.

**Social learning** – the social learning idea was developed by Albert Bandura (1977), and states behaviour is learned from the environment through the process of observational learning. After conducting experiments with bobo dolls and observation of children's behaviour, he concluded that children observe people around them in various ways. Bandura (1977) has identified three main models of observation learning: *a live model* that involves an actual person performing behaviour; *a verbal instruction model*, which includes telling of details and descriptions of behaviour and *a symbolic model*, which includes either a real or fictional character demonstrating the behaviour via movies, books, television, radio or any other media sources. As far as sustainability is concerned research done by Dlouhá, *et al.* (2013, p.64) has identified that social learning:

...can be seen as a crucial and indispensable condition for successful sustainable development implementation as it is grounded in collective and collaborative learning and supports learning processes associated with relevant socially oriented aims. It is also considered to be a basis for regional cooperation where different stakeholders are brought together to share knowledge and information about sustainable development within a community and enter into a dialogue with the lay public.

While the concept of social learning goes beyond universities' boundaries, the role of higher education (or any other educational institution) still plays a significant role in sustainability. It could be seen as an active societal player in developing human capital, accumulating skills and knowledge; and reproduction of dominant values helping to integrate individuals into society (Dlouhá, *et al.*, 2013). Considering the concept of learning and sustainability in this research learning is considered as a lifelong attempt there is a value of learning of all kinds and universities could be catalysts between individuals and society.

## 2.4 Education for sustainability

As far as EfS is concerned, the Decade of Education for Sustainable Development (2005-2014) emphasised that education is an indispensable element for achieving sustainable development (DESD, 2005; UNESCO, 2005). Education is an essential concept in social development as it is future-orientated especially in view of sustainability (Jefferies and Smith, 2005). Publishing the Decade of Education for Sustainable Development in 2005 was the first UNESCO attempt to raise public awareness and

increase broader participation in EfS. The Decade's message stressed the idea that EfS is a lifelong process and could be described as follows (UNESCO, 2005):

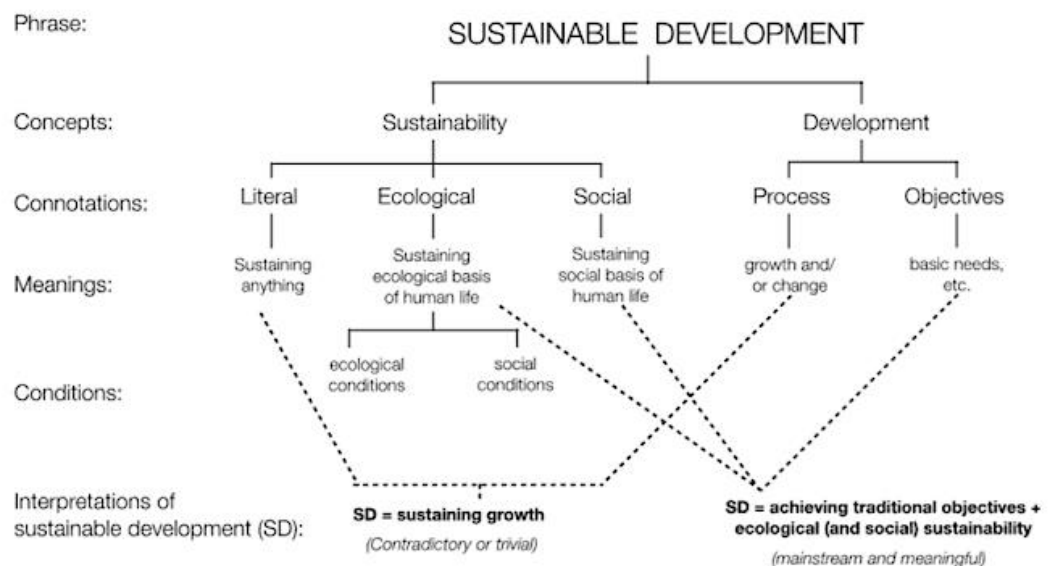
- is based on the principles and values that underlie sustainability;
- deals with the well-being of all four dimensions of sustainability – environment, society, culture and economy;
- uses a variety of pedagogical techniques that promote participatory learning and higher-order thinking skills;
- promotes lifelong learning;
- is locally relevant and culturally appropriate;
- is based on local needs, perceptions and conditions, but acknowledges that fulfilling local needs often has international effects and consequences;
- engages formal, non-formal and informal education that resonance with
- accommodates the evolving nature of the concept of sustainability;
- addresses content, taking into account context, global issues and local priorities;
- builds civil capacity for community-based decision making, social tolerance, environmental stewardship, an adaptable workforce, and a good quality of life;
- is interdisciplinary. No single discipline can claim EfS for itself; all disciplines can contribute to EfS.

#### **2.4.1 Critique of sustainability and EfS**

Since the introduction of notion of sustainable development in 1987 (WCED, 1987), has increased debates among scholars and practitioners regarding this concept. National and international policies and publications use term sustainable development rather sustainability (see sections 2.1 and 2.2). Scholars such as Jacobs (1999) and Mebratu (1998) identified sustainable development concept being vague and it will likely to foster misconceptions. Jacobs (1999) stressed that the interpretation of sustainable development is misguided and criticizes Brundtland definition (WCED, 1987) as a 'smokescreen' put up to obscure the conflicts between ecological integrity and economical growth interests and it becoming a fashionable phrase. However, Jacobs (1999) see sustainable development as a contestable concept, which is like a political term (liberty, democracy, social justice). These concepts are based on unitarily, but often

vague 'core ideas', which are open to different interpretation, that becomes contested when converted concept into action.

Taken literally sustainable development would simply mean 'development that can be continued (either indefinitely or for a certain period of time). Which raises the question what is 'development' and this is one of the aspect of debate between theorist and practitioners. Some researches misinterpretation of sustainable development linked with its semantic roots (Lélé, 1991). For example, some people understood sustainability as 'ecological sustainability' and sustainable development viewed as process of change including (ecological) sustainability into the main agenda (Lélé, 1991). On the other hand, sustainable development is viewed as 'sustainable growth', sustained change or simply 'successful' development. Taking into account these assumptions Lélé (1991) has presented semantic map of sustainable development (see Figure 2.2), which identifies the main issues linked with sustainable development.



Adapted from Lélé (1991, p.608)

**Figure 2.2 The semantics of sustainable development**

Various debates regarding sustainability and sustainable development affected its implementation into the education system. The misconception of sustainability one of the main challenges confronted by academics in higher education institutions. Filho (2000) emphasised that *sustainability* concept is not fully understood and became a widely used word as synonym with words such as *long-term*, *durable*, *sound* or *systematic* amongst higher education institutions. Based on work on Filho (2000, p.16) identified the main reasons why is sustainability is difficult to understand in higher education institutions:

- 1) **Sustainability is not a subject as such.** Since it is not classified as being of the domain of any given science - rather being a component which may be incorporated into all disciplines - there tends to be a trend towards perceiving it as an abstract concept.
- 2) **Sustainability is too theoretical.** Sustainability and sustainable approaches are seen as theoretical matters, part of the political discourse and hence a mere theoretical expression.
- 3) **Sustainability is too broad.** This feeling is felt in some contexts, where the subject is seen as too broad and, by default, as impossible to handle.
- 4) **Sustainability is too recent a field.** Some universities think they should wait and see how it develops, as opposed to taking a more proactive role.
- 5) **Sustainability is a fashion.** This is unfortunately observed in many situations and derives from the suspicion of the real purpose of sustainability.

Under this light, EfS become the centre of debate and critique. The problematic and critique of sustainability and EfS is stressed in Jickling's work (Jickling, 1992; 2000; 2001; Jickling and Spork, 1998; Jickling and Wals, 2008). Jickling (2001) has identified two main issues linked with sustainability and education. First, sustainability should not be pushed into an education system as an anthropocentric ideology (for example capitalism) and should not be used in EfS as a tool of propaganda and indoctrination. Second, Jickling (2001) sees the sustainability agenda perceived as a rather simplistic approach, as a one-dimensional nature. Rather than merging students into ideas of sustainability, educators teaching should be focused on ecocentric philosophy (Nath, 2003) and encourage students to critically evaluate and reflect on social, environmental and economic issues.

#### **2.4.2 Skills of EfS**

EfS is designed to challenge and empowers individuals and stakeholders to imagine a better and sustainable future across different nations and cultural groups. It is to raise awareness and promote sustainability across all disciplines and all levels of society. This particular aspect of education aims to develop change agents to effect socio-economic and political change. It aims to empower people to think critically about their world, get involved in social issues, develop solutions, develop decision-making abilities and take

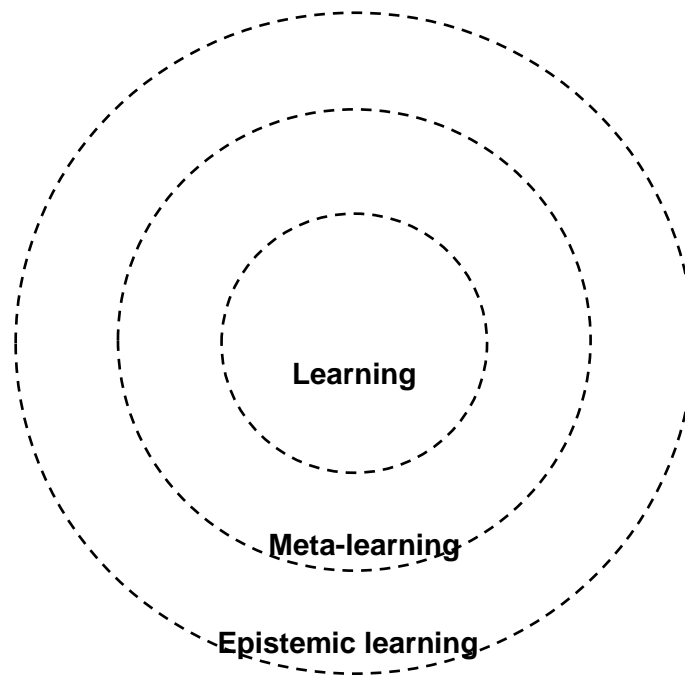
action (Hannon, 2005). Tilbury and Wortman (2008) and UNESCO (2011) identified the following skills linked with EfS:

- Envisioning – being able to imagine a better future. The critical aspect of it is that by knowing the destination, it will be better able to figure out how to get there.
- Critical thinking and reflection – the ability to question existing belief systems and to identify the assumptions underlying knowledge, perspectives and views. Critical thinking skills assist people to learn to inspect economic, environmental, social and cultural constructions in view of sustainability. This could be achieved by promoting active and participatory learning.
- Systemic thinking – acknowledging complexities and looking for links and synergies when trying to find solutions to problems (Wiek and Walter, 2005). EfS includes processes, which engage the *whole system* (Sterling, 2010).
- Building partnerships – promoting dialogue (including multi-stakeholder and intercultural dialogue) and collaboration, learning to work together. Participation in decision-making – empowering people.

EfS could help to promote and raise awareness of sustainability in educational institutions across all disciplines including management studies (see for example Jones, Selby and Sterling, 2010). Scholars working in educational areas stress the importance of EfS (Dawe, Jucker and Martin, 2005; Springett, 2010; Sterling, 2012; Sterling and Scott, 2008; Wals and Jickling, 2002). Thus, learning for EfS refers to what has been learned and is learned by those involved in EfS, for instance, learners (students), facilitators and coordinators as well as other stakeholders. Learning in EfS is not only increasing knowledge, values and theories linked with sustainability, but it also refers to “learning to ask critical questions; to clarify one’s own values; to envision more positive and sustainable futures; to think systemically; to respond through applied learning; and, to explore the dialectic between tradition and innovation” (UNESCO, 2011, p.8).

### 2.4.3 Transformation of education system towards sustainability

Sterling (2001) underlines three main types of educational approach towards EfS that could be perceived as a key framework working towards EfS: education *about*, *for* and *as* sustainability. This concept is linked with three different types of learning systems that can be assumed as different levels of knowing and meaning (learning, meta-learning, epistemic learning) (Sterling, 2010)(see Figure 2.3).



**Figure 2.3: Learning levels linked with education and sustainability**

Adapted from Sterling (2010, p.24)

Education *about* sustainability refers to general learning or first-order learning. It is linked with change within appropriate boundaries. For education institutions, its emphasis is on content (for example curriculum change), and it is relatively easy to adopt for educational institutions because it does not confront the existing paradigm.

Education *for* sustainability equates with second-order learning (meta-learning). It involves the learner or learning organisation critically examining dominant paradigms, values, and ethics and seeks change if it is necessary. Finally, the third order of change or so-called epistemic learning refers to education *as* sustainability. This transformative change “involves a shift of epistemology or operative way of knowing and thinking that frames people’s perception of, and interaction with, the world. This entails thinking about

and evaluating the foundations of thought itself" (Sterling, 2010, p.23). Sterling's worldview towards EfS is based on *whole system thinking*. The education system does not exist on its own; it is merged and linked with social, cultural and economic systems. The social, economic and cultural systems influence the educational system which is built on a modern mechanic paradigm and tends to dominate the formal education (Sterling, 2003). Under those circumstances, the challenge of EfS cannot merely add sustainability as an issue for consideration in educational system. There is a need for the education system to change by itself: to pay attention to not just how we learn, but also the way we learn. The following chapter concentrates on management education and EfS.

## **Chapter 3: Development of management education and EfS**

### **3.1 Higher education institutions and business schools' initiatives linked with EfS**

Due to international conferences related to sustainability, global awareness of environmental issues has increased since the 1970s. The major environmental crises and issues captured widespread public, governmental and non-governmental organisations' attention during the middle and late 1980s. For example, the Bhopal gas leak in India in 1984, the documentation of the ozone hole over Antarctica in 1985, the major nuclear accident in Chernobyl in 1986, and media attention to climate change (Rands and Starik, 2009).

Stressing the importance of education and sustainability in the international arena, universities and business schools found themselves in the area of environmental concern. Society was reaching out to the universities for building up and delivering the knowledge that could lead to a sustainable future (Wals and Jickling, 2002; Wright, 2004). At the same time, universities and business schools were being criticised for not taking enough action both in greening their physical actions and in developing environmentally friendly curricula (Parker, 2018). Organisations and businesses' unethical actions towards the environment have put extra pressure on business schools' education (Bowers, 1997; Rands and Starik, 2009; Sterling and Scott, 2008). Under those circumstances, initiatives of higher education institutions and business schools linked with sustainability started to emerge in the early 1990s (Wright, 2004).

Starting from 1990, universities have created and signed some international agreements and declarations related to sustainability in higher education. These declarations have shown the willingness of higher education institutions to commit to sustainability and EfS:

- The Talloires Declaration, 1990 (ULSF, 2012);
- The Halifax Declaration, 1991 (IISD, 2012b);
- Ninth International Association of Universities Round Table: The Kyoto Declaration, 1993 (IISD, 2012c);
- Association of Commonwealth Universities' 15th Quinquennial Conference: Swansea Declaration, 1993 (IISD, 2012d);
- The CRE Copernicus Charter, 1994 (IISD, 2012a);
- Declaration of Thessaloniki, 1997 (UNESCO, 1997);



- The Lüneburg Declaration, 2000 (UNESCO, 2000).

Despite the difference of these declarations regarding the context in which they were written, Wright (2004, p.13) has identified the key themes that emerge from the various sustainability declarations (Table 3.1).

**Table 3.1: Common themes of sustainability and higher education declarations**

Year	Declaration	Moral obligation	Public outreach	Sustainable physical operations	Ecological literacy	Development interdisciplinary curriculum	Encourage sustainable research	Partnership with government, NGOs and industry	Inter-university cooperation
1990	The Talloires	X	X	X	X	X	X	X	X
1991	The Halifax	X	X		X			X	X
1993	The Kyoto	X	X	X	X		X	X	X
1993	Swansea	X	X	X	X		X		X
1994	CRE Copernicus Charter	X	X		X		X	X	
1997	Declaration of Thessaloniki	X	X		X	X		X	
2000	Lüneburg	X	X			X	X	X	X

Adapted from Wright (2004, pp.9-13)

Two themes are mutual to all declarations linked with sustainability in higher education and, as will be seen later, those themes are relevant to the business schools' initiatives. Firstly, each declaration considered the moral obligation to become sustainable higher education institutions. Secondly, all declarations reflected the need to engage with society regarding environmental sustainability. Another dominant theme is the development of ecologically literary staff, faculty, and students, as well as the development of a partnership with all levels of government, non-governmental organisations, and various industries. However, developing sustainable physical

operations and the development of interdisciplinary curriculum was least dominant among higher education sustainability declarations (Wright, 2004).

Various initiatives and declarations served as supporting guidelines for higher education institutions leaders towards sustainability agenda. However, universities continue follow their own traditional agenda and have been slow in addressing a new sustainable development paradigm. Universities including business schools need to take a proactive approach and systematically address sustainability and making it an integral part in all its activities including, curricula, research, operations, community engagement and reporting (Lozano, *et al.*, 2013).

### **3.1.1 *Initiatives linked with business schools***

Sustainability agenda in business schools began with bringing environmental education into business and management studies. In 1990 The Management Institute for Environment and Business (MIEB) along with the United Nations Environmental Program (UNEP) and INSEAD (acronym for the French "Institut Européen d'Administration des Affaires" or European Institute of Business Administration) business school held a conference in France. Business school representatives, government leaders, non-governmental organisations and business leaders from the United States and Europe were discussing the case for and potential of environmental education within business schools. The outcome of this conference was a publication by MIEB that contained discipline-specific bibliographies and also exposed the work of the business schools as case studies to increase attention to the environment within the business schools' curricula. The work of the MIEB influenced the establishment of the Business-Environment Learning and Leadership (BELL) programme in 1994. The BELL's activities for the ten years included holding annual conferences, publishing cases, providing access to business schools' curricula linked with innovation and sustainability and producing reports about business schools' environmental education (WRI, 2012).

Many of these activities have expanded to China and Latin America after the MIEB merged with the World Resources Institute (WRI) in 1996. In 2000, the WRI's work activities linked with empathising and endorsing environmental education in business curricula were more concentrated on developing countries, for instance, China and Brazil rather than Europe or North America (Rands and Starik, 2009).

Another attempt to increase business school attention on environmental issues was the creation of the Greening of Industry Network (GIN, 2012). GIN is an international network of professionals from education, research, business, governments and non-governmental organisations concentrating on issues linked with economic development and the environment and promoting sustainability. It has created a forum for researchers and practitioners to discuss and exchange knowledge regarding environmental education and business schools. In 1991, in the Netherlands, the first GIN conference was held and a second one was held in the United States, in 1993. These conferences included some presentations on environmental education within business schools that have resulted in publishing a book and research papers (GIN, 2012; Rands and Starik, 2009).

In 1994, The Academy of Management (AOM) set up the Organizations and the Natural Environment (ONE), which, in 2007, became a division within the AOM. ONE is concentrating on research, teaching in the area of relationships between organisations and the natural environment (ONE, 2013). Since 1995, ONE has provided a platform for the presentation of scholarly work on environmental management as well as workshop sessions on environmental issues and education (Rands and Starik, 2009).

Conferences, meetings, and forums organised by the BELL, GIN and ONE have provided a platform for academics and practitioners from the business schools to exchange ideas regarding embedding environmental issues into business schools' different activities. For example, the BELL was education centred, GIN was relevant for practitioners, and ONE was research orientated (Rands and Starik, 2009). However, significant steps to EfS in business schools took place in 2007.

In 2007, the deans from business schools in partnership with United Nations Global Compact (a network of over 350 business associations devoted to pursuing sustainable practices) developed Six Principles for Responsible Management Education (PRME) (UNPRME, 2013; Wilhelm, 2008). United Nations Global Compact is the most significant voluntary corporate responsibility initiative in the world. It drove six principles that provide a framework for embedding sustainability across business schools' activities. These principles echoed vital themes from sustainability and higher education declarations that universities signed in the period 1990-2000 (UNPRME, 2013). For example, the PRME principles encourage public outreach and partnership with various stakeholder groups, working on developing curriculum and conducting the research. This initiative is an international attempt to link businesses with higher education institutions that work on sustainability in management studies (see Table 3.2)

**Table 3.2: PRME principles**

Principle 1 Purpose: We will develop the capabilities of students to be future generators of sustainable value for business and society at large and to work for an inclusive a principle of sustainable global economy.
Principle 2 Values: We will incorporate into our academic activities and curricula the values of global social responsibility as portrayed in international initiatives such as the United Nations Global Compact.
Principle 3 Method: We will create educational frameworks, materials, processes and environments that enable active learning experiences for responsible leadership.
Principle 4 Research: We will engage in conceptual and empirical research that advances our understanding of the role, dynamics, and impact of corporations in the creation of sustainable social, environmental and economic value.
Principle 5 Partnership: We will interact with managers of business corporations to extend our knowledge of their challenges in meeting social and environmental responsibilities and to explore jointly effective approaches to meeting these challenges.
Principle 6 Dialogue: We will facilitate and support dialogue and debate among educators, students, business, government, consumers, media, and civil society organisations and other interested groups and stakeholders on critical issues related to global social responsibility and sustainability.

Source: UNPRME (2013)

The 50+20 project, 2011, is another international initiative that aims to have an impact on the business schools working towards sustainability. This is a collaborative initiative between The World Business School Council of Sustainable Business (WBSCSB), Globally Responsible Leadership Initiative (GRLI) and The Principles of Responsible Management Education (PRME) that aims to provide education and research that is relevant and applied, sustainable and learning orientated also creating new business schools initiatives “(UNPRME, 2013)” (GRLI, 2013).

### **3.1.2 Critical view of EfS in management studies**

Generally, international, national and regional higher education accreditation bodies encourage embedding sustainability into universities and business schools’ formal curricular and other activities; for example, bodies such as the Global Foundation for Management Education (GFME), European Academy of Business in Society (EABIS), Association of Business Schools (ABS), Association to Advance Collegiate Schools of

Business (AACSB), Association of MBAs (AMBA), European Quality Improvement System (EQUIS), in the UK through the Quality Assurance Agency (QAA) for Higher Education (Fukukawa, *et al.*, 2013; Moore, 2004).

However, there are several issues linked with regulatory requirements that are placed upon (e.g. QAA) or encouraged to implement by Higher Education Institutions (e.g. AACSB). For instance, international accreditations are voluntary and used as quality “badge” to gain a competitive advantage and attract more students and funding. Regarding the language related with sustainability, business ethics used in the requirements scholars viewed as broad and unspecific (Moore, 2004). Additionally, if sustainability and business ethics should be added as stand-alone module or integrative approach should be implemented is not named. Uncertainty and lack of mandatory modules linked with responsible and ethical business, caused debates among scholars about accrediting agencies. Opponents argued the possible impact towards academic freedom. In AACSB, AMBA or EQUIS specifications are not stated how learning outcomes should be incorporated into curriculum. Eventually, it is up to curriculum designer, programme leader competence how she/he can interpret various requirements and implement sustainability concepts into syllabus (Moore, 2004; Wiek, Withycombe and Redman, 2011). Ghoshal (2005) stressed that adding modules such as business ethics will not be able to achieve a responsible management education in the business schools.

According to Nonet, Kassel and Meijs (2016) based on analysis of European Business School Programs highlighted that notion of responsible management remains undefined and patently leads to an absence of clarity in research, education and management. Other scholars Ghoshal (2005) and Parker (2018) argues even further and accuses business schools of promoting ideologically inspired amoral theories and worldviews that leads graduates to negative or harmful practice of management. Baden (2013) (similar to Sterling (2012)) claims that the main barriers to embedding EfS in business schools are lack of academic competency, motivation, and skills in teaching outside their area of expertise.

Overall, scholars examining international declarations, agreements and initiatives specifically linked with business schools share a number of similar views. For instance, Ghoshal (2005) in agreement with Lozano, *et al.* (2013) (see previous section) emphasised the need of a fundamental and collective efforts from various stakeholders in the business schools support and promote responsible management education. Next to national and insertional agreements, higher education institutions, including business schools, need their own policies, rules, and regulations to highlight commitment towards

sustainability. To ensure of high-quality education in sustainability there should be a continuous monitoring of performances and reflective practices in place (Wiek, Withycombe and Redman, 2011).

### **3.2 Development of the business schools in the UK**

Business and management education is rapidly increasing. It is one of the most significant components of higher education delivery in many countries, regardless of their pedagogic and business traditions. In Australia, Spain, the United States and the UK there are more business and management graduates than in any other subject area. (Ottewill and Macfarlane, 2012b). This chapter aims to outline the origins of business schools' development in the UK and emphasise some of the tensions concerning the aims of management studies and linking it with EfS.

At the end of the nineteenth-century business and management courses in higher education were pioneered in the United States. In 1881, the University of Pennsylvania, with the help of businessman Joseph Wharton, established a department of management studies. Thus, in 1898, the Wharton School was founded, which encouraged the University of Chicago and California to open their business schools. In 1908, the well-known Harvard Business School was established that is considered one of the most prestigious in the world. Since the first decade of the nineteenth century, the United States universities started to introduce business and management programmes and establish business schools (Barry, 1989). Business schools in the United States, specifically Harvard Business School, were highly influential in the establishment of European, and later Asian, schools. The Harvard Business School has also contributed to the teaching and study methods developed during the 1920s (Ottewill and Macfarlane, 2012a).

In contrast to the increasing role of business and management studies in the United States, the UK lagged behind in the early part of the twentieth century. Due to emerging different interests and different agendas, according to Ivory, *et al.* (2006) the purpose and function of the first business schools in the UK was unclear. The developing British industry in the 1940s was facing scarcity of skilled workers. In this period attention was paid to management education. In response to this, in the post-war period, the Labour Government aimed to improve the efficiency and professionalism of British management. The most significant post-war development in UK management education was the

launch of The Diploma in Management Studies (DMS) by the British Institute of Management in 1949. In the 1950s, next to universities such as Liverpool, Edinburgh, Manchester College of Science and Technology (now the University of Manchester) and the London School of Economics and Political Science, mainly technical colleges carried out the management education and training (Barry, 1989).

However, despite the growth of the DMS in the 1950s, there was only limited interest in postgraduate management education and firms were sceptical of the value of educational qualifications. Also, the academic arena continued to perceive management education as an inappropriate area for scholarly investigation (Ivory, *et al.*, 2006).

In the 1960s the beliefs towards management education in Britain had changed due to several reasons. Firstly, due to a broader society view of Britain's economic decline and increasing concerns of the UK industries' productivity compared with other industrialised countries. Secondly, due to rapid technological change that posed a common belief that it would bring new challenges and opportunities for the country, and well-educated and technically competent management could meet those challenges (Ivory, *et al.*, 2006).

Under those circumstances, in 1963, the management education in higher education was re-evaluated by the Lord Robbins Report (Robbins, 1963). Mainly focusing on the postgraduate level, the report recommended the formation of two main business schools to be based in London and Manchester (Franks, 1963). The undergraduate curriculum in management studies was dedicated to the Crick report published by the Department of Education and Science (DES, 1964) that stressed the need for a new nationally recognised qualification in management studies broadly in line with the Diploma in Technology pioneered by Colleges of Advanced Technology and other technical colleges.

As a result, management studies degrees were developed at a number of polytechnics during the 1960s and 1970s under the regulation of the Council for National Academic Awards (CNAA). The number of management studies degrees rose steadily during the 1970s and 1980s and were being provided in Britain by 37 universities, 45 polytechnics and approximately 150 technical colleges (Ivory, *et al.*, 2006).

In the line of the Lord Robbins Report (Robbins, 1963) and Frank reports (Franks, 1963) the Crick report (DES, 1964) highlighted that the term management studies should be applied only to postgraduate courses. This caused a divide between undergraduate and postgraduate business and management studies and most universities' business schools focused on postgraduate education. In the 1980s growth was seen in the Master's in Business Administration (MBA) situated in appreciated British universities. In

this case, MBA courses opened doors for universities that avoided teaching management education as academically illegitimate and universities that were seeking new sources of income. During the period from the 1980s to the early 1990s, the number of business schools and MBA graduates doubled (Ivory, *et al.*, 2006).

The polytechnics, through the 1960s and 1970s, had taught the majority of management education in the UK, which later, in 1992, gained university status. Different from academic universities, the polytechnics had been designed to provide vocational courses with a practical orientation. Ivory, *et al.* (2006, p.9) argues that:

“Institutions, which themselves gained ‘university’ status in 1992, may have been better suited to meeting practical needs of managers than the traditional ‘pre-1992’ universities.”

Since 2006 management studies have become an established academic discipline, business schools managed to produce high-quality research, offer successful MBA, and attract large numbers of international students (Ivory, *et al.*, 2006; Ottewill and Macfarlane, 2012b).

Despite this, literature identifies the central debates regarding business schools. For example, the Advanced Institute of Management Research report (Ivory, *et al.*, 2006, p. 9) highlighted the critical conflicting debate linked with UK business schools (see Table 3.3).

**Table 3.3: Main debate linked with business schools in the UK**

Business school research is too abstract and irrelevant to the needs of practising managers.	Not enough business school research is grounded in the methodological rigour of the social sciences, it is often too case-based and discursive.
Business school teaching is too theoretical, and not sufficiently focused on problems that managers actually face.	Business school teaching is too ‘customer focused’ and not sufficiently distant from, and critical of, management practice.
MBAs, and business degrees generally, do not produce well-rounded managers with leadership qualities.	MBAs are, or for a long time were, seen as a passport to career progression and greater earning power.
Business education has made almost no impression on practising managers and has failed to impact business performance.	Business schools are partly culpable for recent corporate scandals and therefore have had a negative impact on business performance.



There are too many business schools. Many of those taking degrees in management are unlikely to get much benefit from their studies.	There are not enough business schools. UK firms just cannot rely on the University sector to supply the training/education that their managers need.
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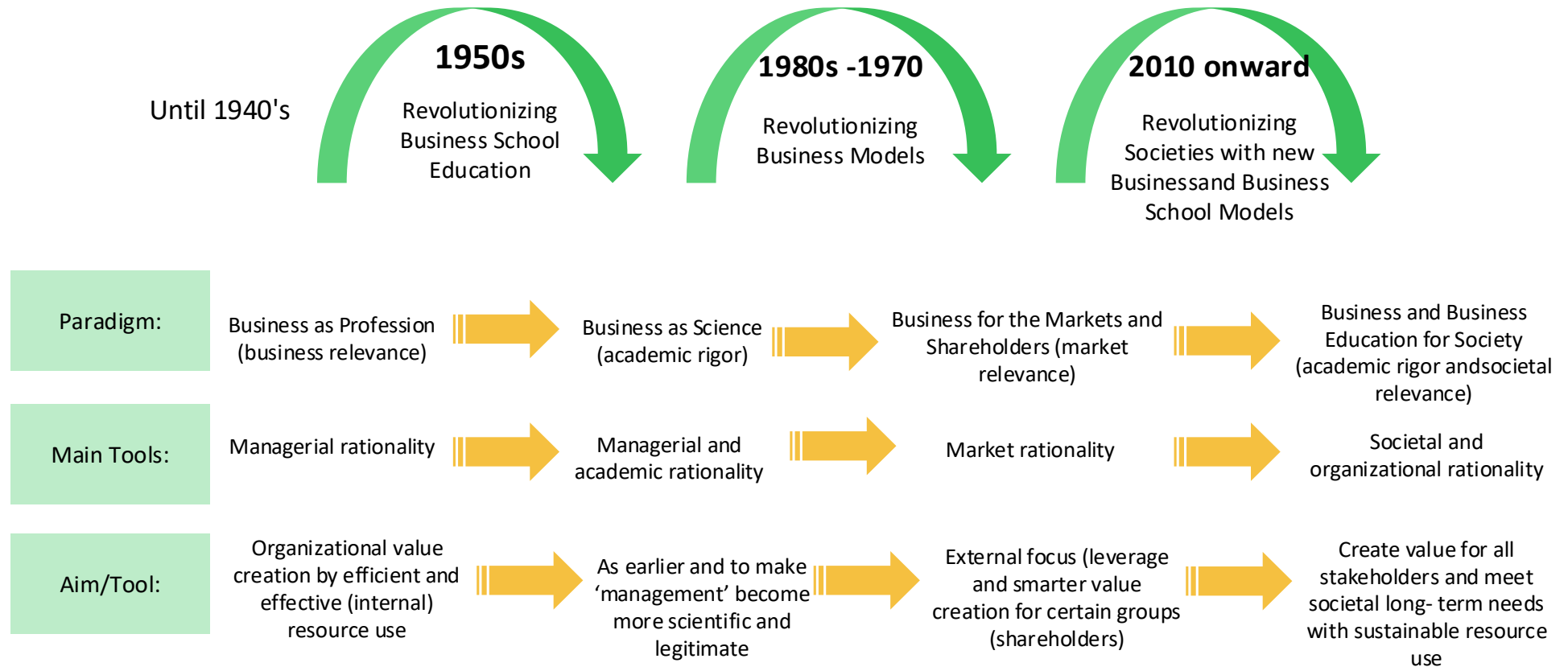
Source: Ivory, *et al.* (2006, p. 9)

These debates resonance with researchers' views linked with sustainability and management education. For instance, Matten and Moon (2004) study showed Europeans business schools have stronger commitments towards corporate social responsibility (CSR) research and teaching compared to the UK. European business schools widely used business ethics in branding programmes and showed strong research interest in responsible business. However, due to cultural sensitivity, various CSR synonyms such as Business Ethics, Corporate Citizenship, Sustainability, Corporate Environmental Management, Business and Globalization, Stakeholder Management, Governance were used in the study that could indicate the different interpretation and understanding of responsible management education. Overall, Matten and Moon (2004) research concluded that business ethics research and teaching tend to expand.

Thus facing climate change, corporate scandals and economic downturn, scholars accused business schools of having been lacking to integrate sustainability, business ethics ideas into HEI activities (Herzig and Moon, 2013). Consequently, a number of studies, publications, books highlighting current challenges and opportunities for business schools towards sustainable development increased (Adomßent, *et al.*, 2014; Wankel and Stoner, 2009). Overall, based on national and international initiatives towards sustainability Figure 3.1 maps out business schools' increasing concern towards sustainability and EfS agenda. Since 1950s Beusch (2014) identifies main three paradigm shifts in business and management education system. The first wave is associated with the reports sponsored by the Carnegie Foundation and Ford Foundation with the discussion on *scientific rigour* and *academic legitimacy* of management education. Consequentially, the business school moved from vocational training to a more scientific approach that was built on empirical research aid to justify organisations' decisions making (Muff, *et al.*, 2013). This approach was adopted by business education and spread out all around the world.

The second wave started in 1970s and moved in the 1980s, and 1990 with spreading neo-liberalism ideas such as free trade, economic liberalisation, reduction in governmental spending has influenced public sector management. Business schools

became performance centres where education was mainly concentrated on organisations' increase of financial capital and shareholder value. The new approach led to the profit maximisation approach that resulted in the twenty-first-century economic crisis, various financial scandals (such as The Enron) (Beusch, 2014). Based on similar events it has increased debate about purpose/identity of the business school and its contribution to the sustainability agenda that led to the third wave in business school education (see Bradfield, 2009; Thomas and Cornuel, 2011). The third wave reinforces Lozano, *et al.* (2013) views (see section 3.1) and revealed a holistic, fundamental paradigm shift towards sustainability in all levels of business school. For instance, business schools must adapt their activities based on changing environmental, societal, and economic needs. This means business schools should prepare graduates that are able to address current challenges in organisations. Therefore there is a need for curriculum changes and responsible management education build on EfS should be considered (Beusch, 2014).



**Figure 3.1: The three paradigm shifts in business school education and business model development**

Adapted from Beusch (2014, p.525)

### 3.3 The UK government and EfS in higher education

In the UK, the UN World Summit on Sustainable Development and resultant declaration of a UN Decade of Education for Sustainable Development appears to have given EfS a stronger focus in the sector (Sterling and Scott, 2008). Since 2005 policies and strategies from the UK government, Department for Education and Skills (DEfS), Higher Education Funding Council for England (HMG, 2005) and work by the Higher Education Academy have emphasised the education sector's response to sustainable development (Sterling and Scott, 2008). Governmental and supporting bodies working in assisting higher education institutions to emphasise the importance of universities of making involvement toward sustainability through their teaching, learning and research, through their business operations, and through their influence on communities, staff and students (HEFCE, 2008). HEFCE shares its 2008 vision as follows:

Within the next 10 years, the higher education sector in this country will be recognised as a major contributor to society's efforts to achieve sustainability – through the skills and knowledge that its graduates learn and put into practice, its research and exchange of knowledge through business, community and public policy engagement, and through its own strategies and operations (HEFCE, 2013, p.7)

This HEFCE vision underpins the future pattern towards EfS in the higher education sector in the UK. It is also seen that universities and business schools that have signed up various declarations are supporting the ideas of sustainability and EfS (see sections 3.1 and 3.2). However, it is not clear how higher education institutions are making progress with sustainability at the institutional level. Therefore, the main research question aims to answer **How can EfS in Higher Education Institutions in the UK be explored in an integrated, holistic and systemic manner for the benefit of its different stakeholders?**

To pursue sustainability in the higher education sector in the UK does not appear a straightforward approach and as outlined by Sterling and Scott (2008, p.387) “embedding of education of sustainable development in English higher education is a complex, largely decentralised, and multi-stranded process”. Higher education institutions have been criticised of having a considerable degree of autonomy about curriculum and course development. Traditionally, universities are unwilling to follow the direction from the central government about teaching and learning policies and practices.

The UK government, HEFCE and individual universities are the principal actors in the higher education sector that might have different agendas; the relationships between them have been described as *cooperative tension* (Sterling and Scott, 2008). The UK

government aims to deliver a sustainable development agenda that has been promised in *Securing the future: delivering UK sustainable development strategy* (HMG, 2005) and is concerned that universities should produce appropriately skilled graduates. HEFCE aims to enhance excellence in learning and teaching, research linked with sustainable development and boosting the contribution of higher education to the present economy and society.

In the last decade, HEFCE, Department for Education and Skills (DfES) and Higher Education and other governmental bodies have released some publications about support higher education institutions in sustainable development. For example, in 2003 the Department for Education and Skills (DfES) published *Sustainable development action plan for education and skills* (DfES, 2003) and HEFCE released *Sustainable Development in higher education: Consultation on a support strategy and action plan* (HEFCE, 2005).

However, these strategies have been criticised as being “patchy, based on a range of conceptions of sustainable development”, also more concentrating on managing the university environment rather than developing curriculum (Sterling and Scott, 2008, p.387). However, a research paper published by the Higher Education Academy *Dawe report* (Dawe, Jucker and Martin, 2005) and also in 2008 – *HEFCE strategic review of sustainable development in higher education in England* have given a significant contribution to sustainability and EfS in teaching and learning in higher education institutions. It is important to note that work of non-governmental organisations such as *Forum for the Future* with Higher Education Partnership for Sustainability Programme (2000-2003) have been vital to the growth of the sustainability agenda in universities, building on the existing sustainable development interests of higher education curriculum development, research and management (HEPS, 2004a; 2004b).

Nonetheless, universities including business schools are worried about the government’s intervention into academic freedom (Wiek, Withycombe and Redman, 2011). Sceptics view the sustainability agenda as ideology, and according to them, by endorsing it, it is not the primary purpose of a university (Sterling and Scott, 2008).

The Higher Education Academy’s *Dawe Report* (Dawe, Jucker and Martin, 2005), and in agreement with Sterling (2012, pp.26-27), has identified the key barriers for the embedding of EfS into higher education:

- crowded curriculum;
- perceived irrelevance by academic staff;
- limited staff awareness and/or expertise;
- limited institutional drive and commitment;
- limited commitment from external stakeholders (employers, professional bodies, etc.) and seen as too demanding.

In general, Sterling (2012, pp.26-27) has characterised it into a typology of kinds of limiting factors embedding EfS that are paradigmatic/perceptual; policy/purpose-related; structural (governance, compartmentalisation, budgetary etc.); resource/information deficiency.

**Table 3.4 Typology of kinds of limiting factors embedding EfS**

<b>Typology of kinds of limiting factors embedding EfS</b>	<b>Examples</b>
Paradigmatic/perceptual	<ul style="list-style-type: none"> <li>• Lack of clarity regarding meaning and importance of EfS and sustainability.</li> <li>• Lack of clarity regarding implications for curriculum.</li> </ul>
Policy/purpose-related	<ul style="list-style-type: none"> <li>• Doubts by senior management about stability of Funding Council/ Government policy and of 'demand' regarding sustainability provision.</li> <li>• Minority of professional bodies stipulate sustainability content.</li> <li>• Relative lack of QAA benchmark.</li> </ul>
Structural	<ul style="list-style-type: none"> <li>• Silo structures reduce communication.</li> <li>• Lack of leadership and short-termism.</li> <li>• Timescale of programme change and validations.</li> <li>• Apprehension by academics regarding taking on areas beyond comfort zone and lack of holistic perspective.</li> </ul>
Resource/information deficiency	<ul style="list-style-type: none"> <li>• Lack of staff time and incentives.</li> <li>• Costs of changes and financial climate.</li> </ul>

Adapted from Sterling (2012)

Despite the sceptics' views, concepts of sustainability and EfS are discussed among academics. Taking into account universities, also business schools in the UK, engaging in EfS there are several reasons, based on the work of Sterling (2012, p.8).

**Student interest:** Recent research shows that students are interested in the sustainability agenda of higher education institutions. Since 2010 the National Union of Students (NUS) funded by the Higher Education have been annually investigating students' experiences of teaching and learning on sustainable development. Despite of changing HEI environment (e.g. the rise in tuition fees) according to NUS (2018) eight years in a row study outcome remain consistent. The research found that over 60 per cent of students want to learn more about sustainability, and 80 per cent of students want institution to be doing more on sustainable development (NUS, 2018).

**Relevance:** sustainability provides a platform to bring topics (local, regional, global, 'in the news' relevance) to the lectures. By applying different pedagogical approaches learning becomes more relevant and compelling, that could give positive impact to student development (personal and professional) (HMG, 2005; Sterling, 2012).

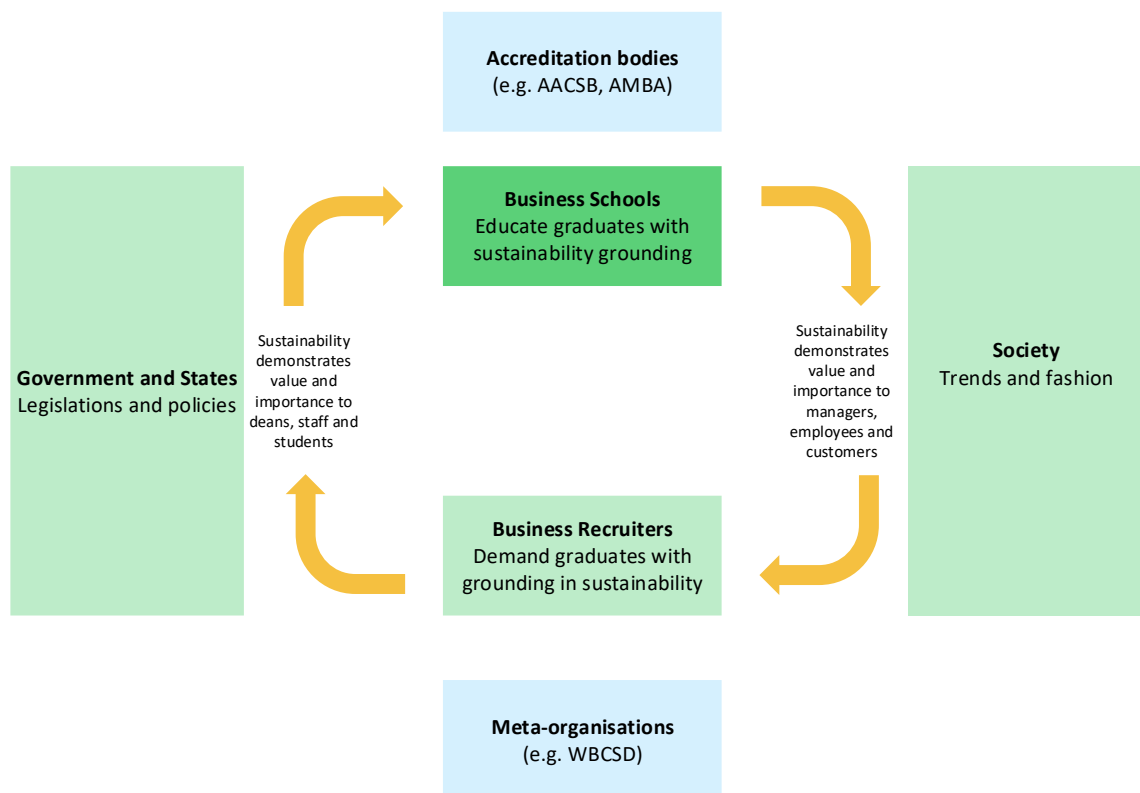
**Community links:** Universities have the potential to help local communities towards sustainability. It could be done by students' involvement in placements, work-based experience, and volunteer work as a part of their course. Involving decision making, hands-on problem-solving activities could enhance their employability skills (Drayson, 2015a).

**Sustainability performance and quality agenda:** In order to have a stronger presence in the sustainability agenda universities are trying to improve their performance measured, for example, by People and Planet Green League (People&Planet, 2018) where UK universities ranked by environmental and ethical performance. Measuring social responsibility and sustainability activities scheme Learning in Future Environments by EAUC (The Environmental Association for Universities and Colleges) (EAUC, 2017). Additionally, in 2014 Quality Assurance Agency for Higher Education published *Education for sustainable development: Guidance for UK higher education providers* (QAA, 2014b). The Important to note that sustainability league tables, accreditation bodies (see section 3.11) and QAA are not obligatory for higher education institutions. Therefore, is depends on internal universities policies, requirements, and leadership towards sustainability agenda.

**Employers' views:** There is evidence of the development of a green economy sector in the UK that offers new opportunities for the students. Employers across the public, private and voluntary sectors are seeking graduates to be sustainability literate about resources efficiency, corporate social responsibility and environmental management.

Consequently, sustainability literacy becoming a growing area of employability skills (HEA, 2016b; Robinson, 2009).

Similarly, with Sterling (2012) approach, Beusch (2014) has identified major external forces affecting business schools (Figure 3.2). This diagram shows the potential for business schools in their role as educators. Business schools have a potential to use first mover advantage (at least not to fall behind) and learn how to develop and use innovative new business model taking into account economic, social and environmental aspects.

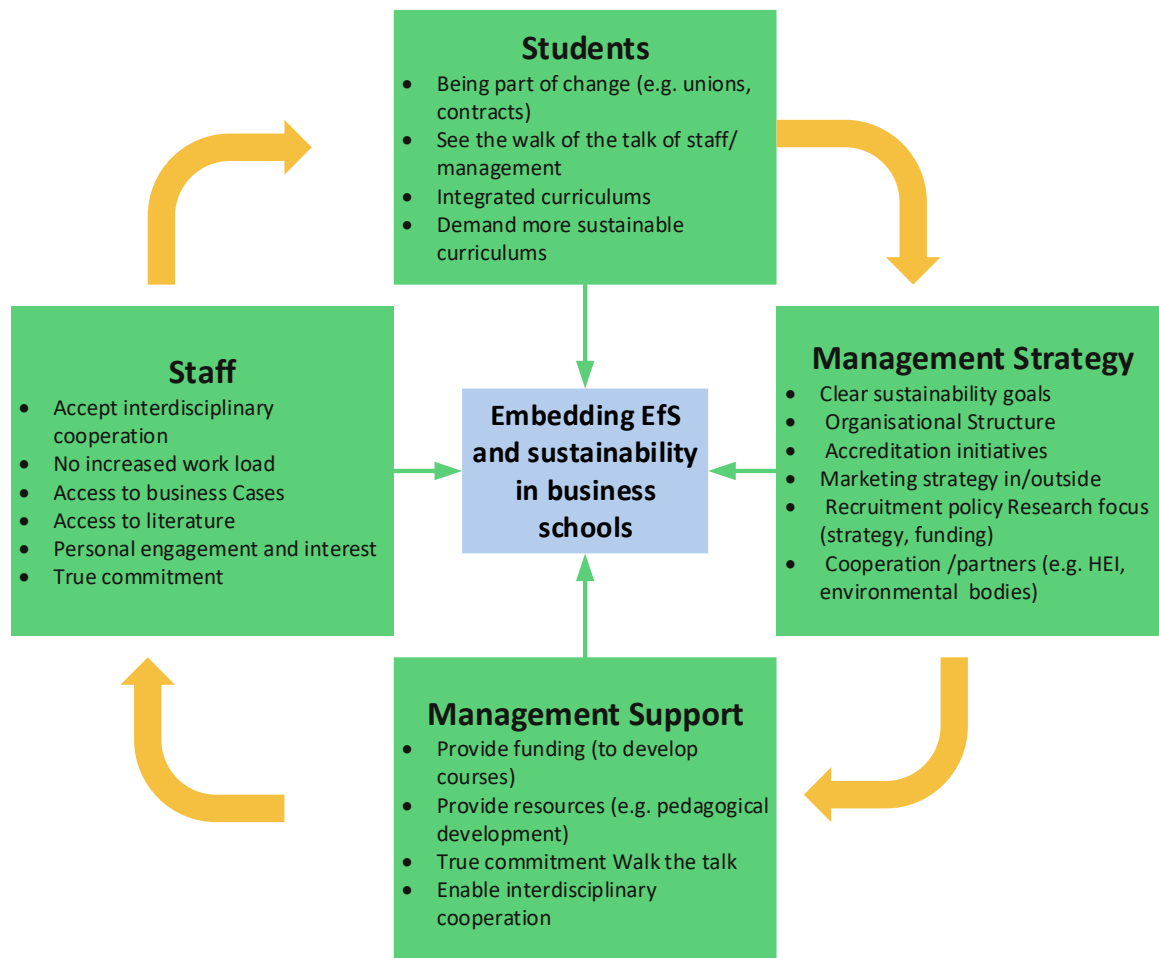


Adapted from Beusch (2014, p.537)

**Figure 3.2: Major external forces affecting business schools**



Linking education with the sustainability drivers mentioned above, in the last decade, in higher education institutions also in business schools the sustainability agenda has become one of the key priorities. Next to external forces, scholars trying to categorise the internal forces that also influence business schools (Figure 3.3).



Adapted from Beusch (2014, p.539)

**Figure 3.3: Major internal forces affecting business schools**

However, when it comes down to the practical implementation of sustainability in business schools' activities scholars have been describing it as *the stranger at the door* (Springett, 2010).

The business school curriculum being criticised as being more focused on process efficiency and profit maximisation and less on ethical approaches to businesses or linking it with sustainability. One of the consequences of this is linking business school

educated executives with accounting frauds (Enron), product safety (the Sanlu milk scandal), the Deepwater Horizon Oil Spill, and the global financial crisis (Springett, 2010).

Fukukawa, *et al.* (2013) in the line with Ghoshal (2005) describes business schools' environment as inflexible regarding embracing new theories, programmes or courses and being slow in adjusting to the students' needs. For instance, Ghoshal (2005) questions the fundamental management theories that are taught in the business schools. Management theories are built on functional practice excluded (or ignored) ethics or morality considerations that causes poor, unsustainable, unethical management practice. As a consequence of this, Ghoshal (2005) draw a sceptical view regarding sustainability programmes to be implemented into business school's curriculum due to lack of research and lack of critical/reflective perspective in management studies. Additionally, Springett (2010) analysed the context of articles on environmental management in the journal *Business Strategy and the Environment* since 1998, and it was found that articles generally followed a positivist paradigm while papers with a critical/reflective perspective were only around 20 per cent.

Other researchers, such as Ählström, Macquet and Richter (2009), have analysed research themes that have emerged, in *the International Journal of Sustainability in Higher Education* (IJSHE) in the period 2001-2010. It has been found that most articles focus on areas such as environmental management, university greening and reducing a university's ecological footprint. Only in more recent volumes do articles on curriculum development, learning, community outreach and partnerships appear on the rise. Journals such as *Journal of Management Education* (Forray and Leigh, 2012) , *Business Strategy and the Environment* (Springett and Kearins, 2005) and *Academy of Management Learning and Education* (Starik, 2010) have published special issues on management education, social reasonability and sustainability (Adomßent, *et al.*, 2014).

With introducing of PRME under the coordination of the United Nations Global Compact, AACSB (The Association to Advance Collegiate Schools of Business) International (see section 3.1.1) represents a driver and debates for promoting responsible management education (Nonet, Kassel and Meijs, 2016). Godemann, *et al.* (2013) highlight the increase of institutional developments of the responsible management education initiatives. Additionally, there is a positive change among accreditation bodies and ranking organisations that strengthen sustainability agenda among higher education institutions. However, Nonet, Kassel and Meijs (2016) identified gap in the literature in terms of defining responsible management education. Consequently, there is a lack of clarity in research, evidence of organisational change, social accountability among

scholars and practitioners (Godemann, *et al.*, 2013). Additionally, Godemann, *et al.* (2013) noted that higher education institutions falling behind in terms of reporting social impact in comparison with private organisations. PRME promotes reporting for social impact among signatories. However, this area is under-researched and under-addressed in higher education institutions (Godemann, *et al.*, 2013).

The analysis of literature showed the importance of the sustainability and EfS in higher education (Wals and Blewitt, 2010). Overall, the interest of embedding sustainability into management studies is growing (Nonet, Kassel and Meijs, 2016). Governments and non-governmental organisations at international, national, and regional level encourage to pursue EfS in business schools. Based on work of Baden (2013), Springett (2010), Fukukawa, *et al.* (2013) and Adomßent, *et al.* (2014) have highlighted several institutional drivers.

Business schools, like any other organisation, aim to increase their revenue, and generate new income. Sustainability seems to be becoming a buzzword in higher education. In this case, business schools are engaging with sustainability to gain a competitive advantage and respond to increasing demand (Fukukawa, *et al.*, 2013). Embedding sustainability into organisational activities is also evident due to changing requirements of business schools' accreditation bodies (see section 3.1.1). In the UK a ranking system emerged, for example, People and Planet Green League (People&Planet, 2018) with sustainability criteria that might influence student choice. Visibility in such surveys could give business schools an extra edge in the education system.

The second stream of research is studies linked with the development and implementation of EfS strategy and policies in organisational operations. The process of implementation of EfS is still perceived as a challenge, and there are a relatively small number of studies done in this area (Springett, 2010). The lack of mutual understanding and terminology used sustainability, EfS. Similarly in business and management context for instance responsible management education (Matten and Moon, 2004; Nonet, Kassel and Meijs, 2016).

The third stream of research is linked with the practical application of EfS in management studies. Attention has been placed on investigating commonness of modules such as ethics, sustainability, and corporate social responsibility as a part of programmes of modules. Such research has been conducted at international, national and regional levels (Fukukawa, *et al.*, 2013). However, Baden (2013) argues that those courses associated with sustainability, which might include modules of corporate social

responsibility or business ethics, are often optional. Most likely students will choose to study those courses in the business school based on personal beliefs and concerns about sustainability and its associated issues.

The alternative to stand-alone courses related to sustainability in business schools is to embed sustainability across the curriculum, and this is another stream of research in management studies. In these studies, it can be identified two main areas of discussion: the content of the curriculum (what is taught) and instructive methods used (how it is taught). However, both areas could overlap each other since a particular way of teaching could notify change in content and vice versa (Fukukawa, *et al.*, 2013). For instance, Kearins and Springett (2003) highlight a pedagogical approach to education for sustainable development in business schools based on critical theory. Kearins and Springett (2003) argue that by introducing a critical skill set such as critique, reflexivity and social action/engagement can effectively benefit in embedding sustainability strategy into management curriculum that could also impact on the teaching approach itself.

Critical theory as an ideology has been around 40 years and has influenced the management and organisational research. Critical paradigm that was promoted by the Frankfurt School and its philosophers, for instance, Theodor Adorno, Herbert Marcuse, Max Horkheimer (Prasad and Caproni, 1997). Various views towards responsible management education highlighted by Ghoshal (2005) or EfS (Sterling, 2012) echoes critical theory paradigm. According to Carr and Kemmis (2009) and Carr and Kemmis (1986), critical theory enquiring the existing worldviews and provides an opportunity to generate new ideas. Therefore, critical theory provide opportunity to stimulate individual and organisational learning, understanding and practice of sustainability.

In the case of EfS, it resonances some of the concepts of critical theory such as reflexivity (critical reflection) that refers to the process of analysing, reconsidering and questioning experiences within a broad context of issues (Murray and Kujundzic, 2005). Additionally, social action/engagement signifies more inclusive approach with the possibility of transformative change and broader interaction with various stakeholders as a part of learning experience (Kearins and Springett, 2003).

Prasad and Caproni (1997, p.286) suggest “critical theory is deeply committed to the emancipatory potential of management and organisations. Thus, it is also deeply committed to understanding how the everyday practice of scholars, educators, students, managers, and workers advances and inhibits this potential”.

Other examples of teaching approach have been highlighted by Baden (2013) and Waddock (2007) action learning, experiential approaches and problem-based learning should be used to foster student engagements with sustainability issues in management studies. Examples include research projects, role-play activity, service-learning activities, and real-life organisational consulting projects. The table 3.5 summarises the pedagogical approach towards sustainability in business schools.

**Table 3.5. Pedagogy approaches in business and management studies**

<b>Pedagogy approaches</b>	<b>Resources</b>
<b>Critical thinking</b> as a pedagogical approach to challenging values and norms of students in a systemic, reflective, and holistic manner enhancing to develop an individual vision for the practice of business and sustainability.	(Baden, 2013; Bradbury, 2003; Hamilton, McFarland and Mirchandani, 2000; Muff, <i>et al.</i> , 2013; Pesonen, 2003; Springett, 2010; Welsh and Murray, 2003)
<b>Outdoor activities</b> to understand the ecosystem.	(Ählström, Macquet and Richter, 2009; Kearins and Springett, 2003; Springett, 2010)
<b>Simulation games</b> to tackle social and environmental issues, conduct life-cycle analysis, strategic thinking.	(Bard, 1996)
<b>Reading:</b> exposure to different concepts of sustainable development through text.	(Bard, 1996; Galea, 2001)
<b>Multiple analytic tools</b> , for example, stakeholder analysis, cross-culture awareness analysis, social and environmental audit, life-cycle analysis.	(Cordano, Ellis and Scherer, 2003)
<b>Online multimedia tools:</b> chat rooms, videoconferences, reading materials, and interdisciplinary projects.	(Hailey, 1998; Marshall and Harry, 2005)
<b>Industrial projects:</b> students were introduced to tools; then apply tools to assess companies, develop and evaluate strategies, and plan implementation.	(Koch, 2005)

It is important to note that pedagogical approaches mentioned in table 3.5 are not set in stone. Changing technological capabilities and student needs urges academics to adopt and implement multiple pedagogy tools in their teaching practices. For instance, Springett (2010) highlights a mixture of diverse pedagogical tools that are highlighted in

table 3.5 with emphasis on interdisciplinary, holistic, systemic thinking and action learning approaches. However, Baden (2013) argued that there exists a lack of sufficient teaching materials and texts covering different aspects of sustainability. Therefore, this presents lack of research in EfS in management studies.

## **Chapter 4: Higher Education Institutions and organisational learning towards sustainability**

### **4.1 Higher Education Institutions and organisational learning towards sustainability**

Universities including business schools have played a significant role in social transformation and nowadays are critical in addressing the current sustainability challenges that society is facing (Clugston and Calder, 1999; Parker, 2018). Higher education institutions' learning could be seen as an integrative concept that can combine various levels of analysis, as it could be viewed from individual, group and organisation perspective. In view of sustainability, the concept of organisational learning is used to identify specific processes, interrelationships between individuals, groups and organisations, together with types of activity and their outcomes that become the learning organisation. The organisational learning definitions could be seen as the result of theoretical traditions and academic disciplines different school of thought. Rashman, Withers and Hartley (2009) based on historical basis classified main sources on organisational learning as: a) classical works b) foundational works; c) popularising works. Appendix 11 encapsulates the main discussions on organisation learning that contributes to the management researchers and practitioners.

Overall, it could be seen as a process of individual and shared thought and action in an organisational environment is embracing cognitive Kolb (1984), behavioural (Dodgson, 1993), social (Cyert and March, 1963) and technical elements (Bandura, 1977; Dlouhá, *et al.*, 2013). Mainly focusing on the cognitive or behavioural process the social interaction and engagement in the working environment plays an inevitable role in learning practice. Furthermore as stated by Huber (1991) throughout combined learning, innovation and working space could appear clusters of 'communities of practice' that could be the foundation of knowledge stimulation and organisational change. For this reason, the organisational learning becomes an investigation body for scholars and practitioners from a different discipline such as organisational theory, industrial economists, business, management studies and psychology (Gao, *et al.*, 2006). Research done by Brown and Dugui (1991) indicates that these 'communities of practice' as a part of social approach apply to the public sector organisations. To put this thesis into context, the relationship between the public sector organisations and organisational learning is reviewed first.

## **4.2 Overview of public sector organisational learning**

Organisational learning has fostered debate on differentiating and understanding the private and public sector organisation learning. Dodgson (1993) stated that similar to private organisations, public service organisations share complex external challenges. However, they have different drivers and goals for knowledge. The available evidence seems to suggest that the concepts of organisational learning are under-explored about the public service organisations (Rashman, Withers and Hartley, 2009). In the literature, it has been identified the importance to investigate the organisational learning in the public sector organisations. First, due to changing international and national political environment, it has been seen an increase in interests across of considerable number of countries in strategies of public management reform. For example, Pettigrew (2005) argues that in countries such as USA, France, Canada there are movements towards decentralisation and regionalisation.

Similarly, the UK public sector is facing restructuration process. While ensuring greater productivity, improving the quality of service delivery, self-assessment building of organisational and managerial capacity under modernisations programs, UK government stresses importance of partnerships and networks. The changes affect different sectors (such as healthcare, education, labour market policy, social service, transport systems and criminal justice) that are specified in government documents and actual reform agendas (Ferlie, Hartley and Martinw, 2003).

Second, high-level political and policy changes draw scholars' attention to investigate the fundamental changes in the governance, design and delivery of public services (Pedersen and Hartley, 2008). Third, according to Pettigrew (2005), the literature on organisational learning thrives with examples of contextual analysis of public organisations. However, literature mainly focuses on the internal context of the public organisation and not paying attention to external contexts of organisations (Pettigrew, 2005). Fourth, investigating and understanding the particular features that influence learning in public organizations may aid to expand knowledge about the field across all types of organization including the private sector and it could increase awareness and innovation in management theory and practical method (Rashman, Withers and Hartley, 2009). For instance, investigating universities towards embedding sustainability agenda could assist other institutions to follow similar actions.

Overall, public organisations play a significant role in national competitiveness, economic and social development of any country. It aids to manage local communities and



handling interrelationships between the state, the market and civil society (Pettigrew, 2005). According to the Office for National Statistics (ONS, 2018) 16.4 per cent (5.37 million) population works in the UK public sector. UK Department for Business, Energy and Industrial Strategy indicates that the public administration, education and health sector are the biggest sector in the UK (GOV.UK, 2018). Overall according to the Organisation for Economic Co-operation and Development (OECD, 2017) indicates that UK in 2014 spent 6.6 per cent of their gross domestic product (GDP) on educational institutions (from primary to tertiary levels) that is above OECD countries average of 5.2 per cent. The available evidence suggests the importance of public sector organisations for economic prosperity, reduce social inequality, enhance productivity and social development (OECD, 2017).

In comparison with private sector organisations, public sector organisation can have diverse goals, values, structure, and stakeholders also different, funding and controls. Additionally, private sector organisations are influenced by social, economic factors that are operating in the heavily policy regulated political environment (Pedersen and Hartley, 2008). OECD (2017) put forward the views that purpose of public sector organisation is to create public value and to impact on citizens rather than profit maximisation. The former discussion implies that there is a different relationship between, ideas, practises and organisations in the public and private sector (Rashman, Withers and Hartley, 2009). As follows from the scholars' perspective the application of organisation and management theory need to be contextualised and oriented towards the specific institutional context (Moore, 2005).

Economic and social changes have pushed public and private sector organisations to react to the demands of customers and citizens. Private sector oriented towards market-driven approach - investing financial and human capital into technology, knowledge, research, and development enables them to introduce new product and services. While the governmental policies and pressures from performance indicators directed change the public sector organisations (Pettigrew, 2005).

For instance, scholars such as Pedersen and Hartley (2008) and Baldwin (1987) have investigated the public and private sector organisations. In comparison with private sector Flynn and Tannenbaum (1993, p.104) have developed the claim that public sector has "a) vague, unclear or ambiguous goals and objectives, b) more frequent leadership turn over and c) relative job security for tenured employees". Under those circumstances, there was a need in a fundamental change in the public sector, starting from management and leadership towards organisation and structures. Baldwin (1987, p.191) puts forward the view that in order to better manage the public sector organisation

governments turns to the public sector that initiated to “shifting boundaries and interdependency between the private and public sectors and civil society; between national and international bodies; and between different parts of the public services within the same economy”. Along similar lines, one of the critical elements of private sector organisations is innovation. Pettigrew (2005, p. 975) offers the view that innovation can increase the public value in the public sector organisations in three fundamental ways:

- Firstly, innovation could assist in creating new/better performance of essential functions and raise productivity of public sector organisations.
- Secondly, governments by eluding ‘one-size-fits-all’ approach and moving towards innovative customisation and adaptation of crucial functions could benefit to meet the demands of diverse circumstances and stakeholders.
- Thirdly, implementing strategic innovation by exploring the new use of organisational capabilities. For instant by introducing new services or product that could be still in line with the mission of the public organisation.

Overall, Moore (2005) research indicates that over past 20 years continued similarities between public and private sector organisations. Nevertheless, author presented the evidence that public sector has implemented specific entrepreneurial and customer orientated approach from the private sector. Moore (2005) study shows that learning within and between organisations has been recognised as fundamental to the public sector improvement. The UK government has taken several approaches to tackle this issue. Mainly through the policies UK government frontward the modernisation initiatives and improvements in public organisations (Poole, Mansfield and Gould-Williams, 2006). Consensually those initiatives have resulted in an increase of research around improvement, assessment and performance (Rashman and Radnor, 2005; Rashman, Withers and Hartley, 2009). However, governments improvements towards public sector approach had mainly driven upon audit and inspections to build capacity and increase performance (Martin, 2005). These tools (audit and reviews) based on upward pressures and could be considered as a top-down approach, government – acknowledged practices to encourage change in the private sector (Rashman and Radnor, 2005).

Additionally, the government has also encouraged public service organisations improvement through the voluntary basis, sharing good practice between other organisations and learn from each other. However, due to lack of funding this area has

not been profoundly explored by officials, although the empirical research has shown that learning approaches can be influential in stimulating improvement (Rashman and Radnor, 2005).

### **4.3 Sustainability and University as a learning organisation**

In this research, universities are considered as a part of the public sector. Universities are a knowledge-intensive industry that focuses on the research, education; they create, acquire and disseminate knowledge and learning is at its core. However, it is questionable whether they are learning organisations. Since, universities are changing, they are actually applying new ideas due to changing environmental conditions and pressures (Rashman, Withers and Hartley, 2009). Here, the concept of organisational learning can aid to understand the ability of universities to react to changing social, economic and political environment. Patterson (1999) argues that universities could become as learning organisations that able to adjust their internal and external operations, and applying contemporary ideas and processes to the current needs. Consequently, university becomes not just organisations that foster learning but also learning organisations.

A number of scholars agreed that all organisations including universities have changed based on the social-cultural, economic, technological development (Patterson, 1999). But to what extent? Following the similar perspective is drawn by Cebrián, Grace and Humphris (2013) agree that universities have made significant changes at different levels. For example, it has been seen an advancement in at the national level (democratisation of access, managerialism, system efficiency), trying to comply to the students demand (personal and intellectual development) and engaged in development at institutional level (operations and processes effectiveness and efficiency, quality management, research and teaching credibility) (Rashman, Withers and Hartley, 2009).

However, some scholars such as Patterson (1999) and Garvin (1993) point out that universities are failing to be considered as learning organisations. The preceding discussions are based on assumptions that the low number of universities struggled to transform themselves to contribute to the notion of sustainability and EfS. Despite of it, many scholars believe that universities should and have potential to respond to the stakeholders rising demand for skills, knowledge for sustainability (Levin and Greenwood, 2001).

From the organisational theory perspective in literature could be found several reasons why universities are considered slow towards transforming operation and processes based on sustainability. For instance, Wals and Blewitt (2010) and Sterling (2003) stress the high-level of autonomy in public sector organisations. Particularly educational organisations Weick (1976, p.1) has described as “loosely coupled systems ” with the high-degree of independence of sub-systems such as faculties or departments. Along similar lines based on work of Weick (1976) higher education institutions can be seen as an ideal type of “political organisation” that with contrasting with “action organisation” and therefore it can create friction among different stakeholders. For instance, Schutte and Barkhuizen (2015) describes public sector organisation are constantly under pressure for instance to meet income, research, student numbers related targets. Meeting institutional performance targets could influence organisational morale and culture can become more constrained and uninspiring. In this regards, it’s been argued that, poor organisational culture could lead to lack of learning, innovation, and lack of incentive of sharing individual knowledge across various groups (Yorke, 2000).

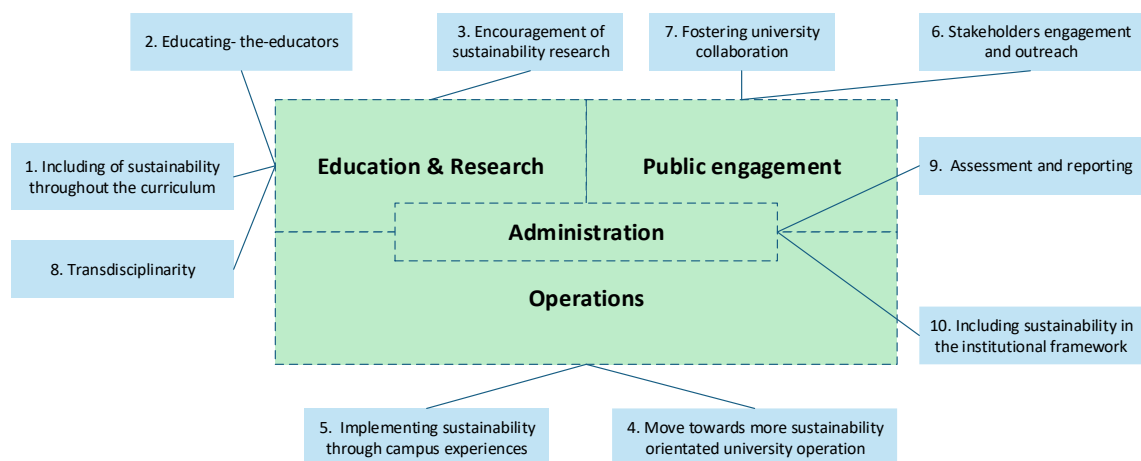
This argument is relevant when trying to understand how sustainability and EfS is embedded in higher education institutions. Considering universities as learning organisations when understanding how they adapt/adopt sustainability is slowly growing. In the 1980s and 1990s some on the notion of organisational learning and universities (Brunsson, 1989), while few authors draw the link between organisational learning and sustainability (Levin and Greenwood, 2001; Patterson, 1999). Only the recent years in literature starts to emerge research based on the reconciliation of the notion of organisational learning and sustainability in the higher education environment. For instance, the case study of the University of British Columbia (Gudz, 2004) and research on sustainability policy implementation (Froman, 1999; Jamali, 2006). Gudz (2004) stressed the importance of university transformation and sustainability, linking various theories of organisational learning to practice and taking into consideration internal (e.g. students, academics) and external stakeholders (e.g. communities). There is a need for structural and holistic transformation of universities towards sustainability. However, it has been little accomplished so far (Cebrián, Grace and Humphris, 2013).

#### **4.3.1 *Modelling sustainable university***

Modelling of the sustainable university has been one of the streams in the area of sustainability and higher education institutions. For instance, it has been found several research papers focusing on university committed to sustainability in all its activities (Cebrián, Grace and Humphris, 2013; Gomez, *et al.*, 2014; Jamali, 2006; Sammalisto

and Lindhqvist, 2007). Among them, Gomez, *et al.* (2014) work proposed essential elements of a higher education institution and its relationships between them. This paper also represents, it represents how those elements are linked with interrelated sustainability components in higher education institution (see Figure 3.4). Their model takes into account international declarations and other assessment models and was based on previous experiences in the field of sustainability in higher education, , and it includes different dimensions as follows:

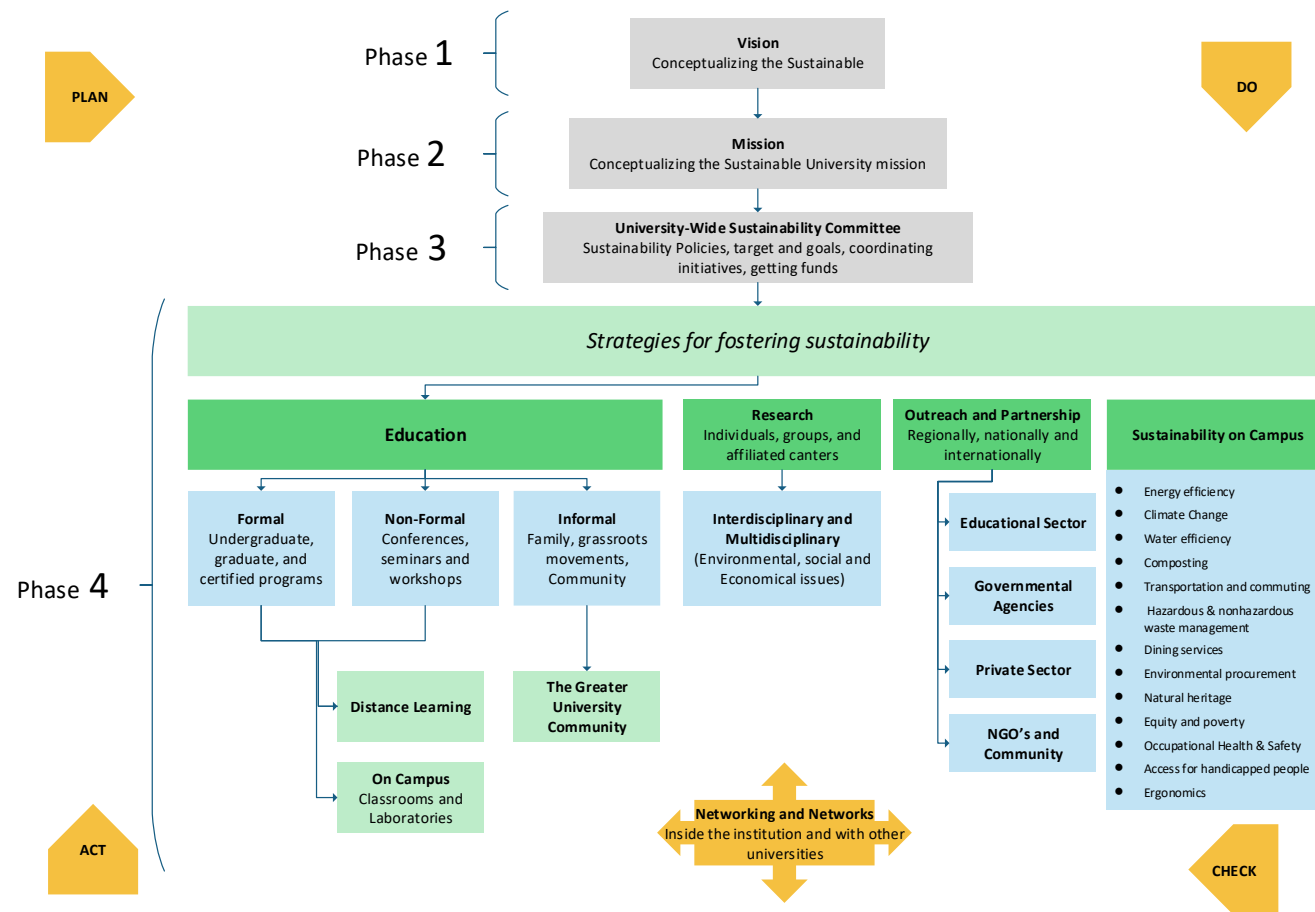
The **operational dimension** in this model contains all essential organisational activities such as human resources management, resource consumption, etc. **Education and research** and **public engagement** are the main channels through which any higher education institution impacts society. However, all part of the models are grounded in **the administration dimension** that includes all policies, regulations and critical strategic decisions and can play a fundamental role in sustainability agenda. The authors highlighted that sustainability effort requires an incremental integration of functions in a higher education institutions' system.



Adapted from Gomez, *et al.* (2014, p.3)

**Figure 4.1: Sustainability elements linked to the dimensions of the higher education institution system**

In agreement with Gomez, *et al.* (2014) the weakness of sustainability models is that they are seldomly implemented in practice. Some models includes strategic and operational perspective as presented by Velazquez, *et al.* (2006) in their sustainable university model (Figure 3.5).



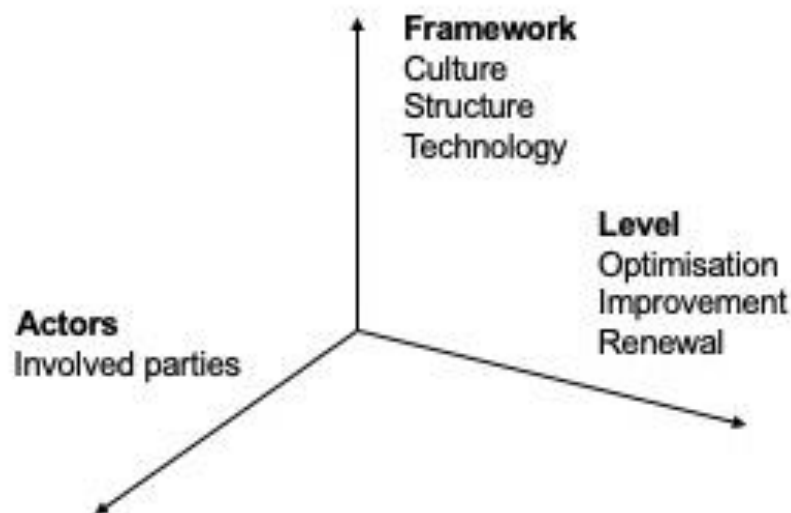
Adapted from Velazquez, *et al.* (2006, p. 814)

Figure 4.2: Sustainable university model

This holistic sustainability model systematically outlines main university activities combined with the strategic management process. Based on literature and best practice Velazquez, *et al.* (2006) have identified main four strategic phases in order to attain sustainable university: stating form developing a sustainability vision and mission; followed by establishing sustainability committee responsible for creating policies, targets, and objectives; and implementing sustainability strategies that into areas such as education, campus, research, outreach to external stakeholders (Figure 4.2).

Based on empirical data from 80 higher education institutions around the world Velazquez, *et al.* (2006) have concluded that to implement this model successfully there is a need for support by key members of the university community, also additional funds and resources must be allocated. These authors have acknowledged the existence of universities' initiatives towards sustainability, however, virtually none of the higher education institutions in the study have completed all the phases.

Similarly, conclusions were drawn by Ferrer-Balas, *et al.* (2008) research that was looking at sustainability transformation systemic and multidimensional perspective of seven universities. They used a model integrating three interacting dimensions of change for achieving sustainability. The model called FLA approach (framework-level-actors): Framework that includes culture, structure, and technology), Level - optimisation, improvement and renewal and Actors that indicates involved parties.



Adapted from Ferrer-Balas, *et al.* (2008, p.299)

**Figure 4.3: FLA approach towards sustainable university**

Ferrer-Balas, *et al.* (2008, p.295) found that none of the three dimensions of change is prevalent over the others. Additionally, lack of incentive structure for promoting changes at the individual level indicated as the main barrier for change. While monitoring and governing bodies, the availability of funding highlighted as the main drivers for progress.

Other scholars have presented practical case studies drawing attention to explicit university's strategies and actions taken towards sustainability: sustainability policy implementation (Christensen, *et al.*, 2009; Lozano-García, Huisinigh and Delgado-Fabián, 2009) also including education, research, academic development and campus (Gudz, 2004). Assessment and monitoring are recognised as key in progressing the sustainability agenda; however, these have proved more difficult to establish than projected (Mader, 2012). Based on Cebrián, Grace and Humphris (2013), Lozano (2006) research it could be identified the following resemblances of different sustainability models applied for higher education intuitions:

- Sustainability is seen as part of all the activities including education, research, outreach, community service, management and operational practices, university leadership (institutional vision and mission, structure and action planning).
- Universities are conceived as complex systems where all university activities and their interdependencies need to be taken into consideration. All draw on ideas of systems theory to model the sustainable university.
- Transformation of current institutional structures and the organisation is seen as necessary.
- Networking, partnerships, stakeholder and community engagement and outreach are regarded as pivotal in the development of more sustainable universities.
- Interdisciplinary and transdisciplinary collaboration is regarded as crucial.
- Models are presented as non-prescriptive tools with the aim of fostering discussion and promoting action and new developments acknowledging the relevance of the cultural and social context.
- Monitoring, assessment and reporting are seen as needed. Velazquez, *et al.* (2006) suggest the use of the plan-do-check-act (PDCA) cycle as a tool to monitor and coordinate continuous improvement (see Figure 3.5).
- These models are created by existing case studies of universities or use case studies and experiences of universities as pilots for validation.

In relation to this discussion, Tilbury (2011) has stress that the holistic transformation of higher education institutions towards EfS has failed and it still remains a significant



challenge. The progress has been made in transforming separate areas of universities, for instance, campus improvement. On the other hand, Wals and Corcoran (2006) suggest that sustainability could be seen as a catalyst for individual, groups organisational learning and change. In general, organisational learning theory offers a variety of lenses that enable to understand higher education institutions aiming to embed sustainability in all its activities and engage with various stakeholders (Thomas, 2004). That brings attention to the sustainability initiatives that could drive innovation, change, individual, group or department learning (Albrecht et al., 2007; Gudz, 2004). As follows this leads to more effective organisational learning processes. Providing a good practice and evidence-based research, which can lead further research and practice. It also could aid to consider changes in higher education processes, structures towards embedding sustainability (Argyris, 2006; Henderson, 2002).

#### **4.3.2 Conceptual framework investigating EfS**

Governments and non-governmental organisations have supported the sustainability agenda, and it has been promoted at international, national and local levels. Higher education institutions (including business schools) are facing demand from different stakeholders, for example, students, employers and governments to pursue sustainability and embed it into their activities. However, they have been criticised for their lack of initiatives to implement EfS into their activities not only into the teaching and learning but also in the whole institutions' operations. It seems that higher education institutions are more concerned with green campuses than developing new teaching and learning approaches towards sustainability (Wright, 2004). The notion of sustainability is a wide-ranging concept, and it could be implemented in any curriculum of a variety of disciplines including business and management studies. Due to lack of competence, materials, and research in curriculum development in management studies, it might limit students' and staff's engagement into EfS.

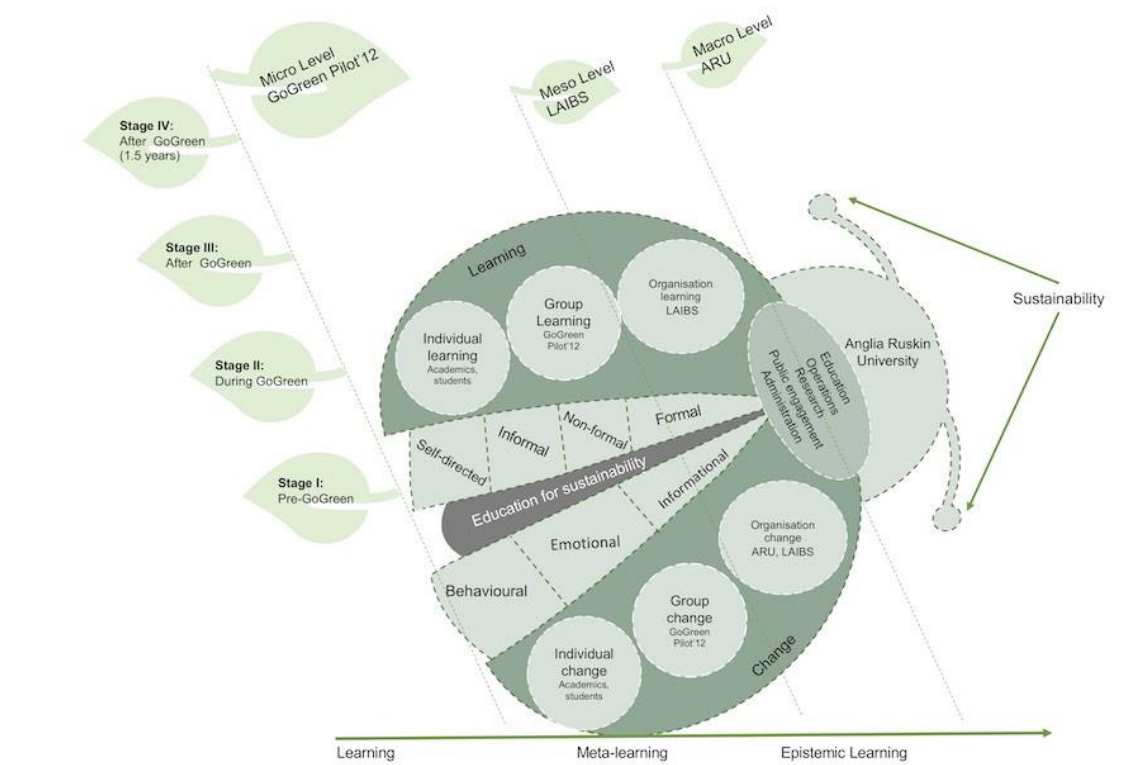
Based on discussions in the literature review Figure 4.4 show the conceptual framework of investigating EfS that could be utilised analysing EfS in the universities and business schools. The framework is built on the notion of *whole systems thinking* (Sterling, 2003), transformative (Mezirow, 2003; Springett, 2005; 2010; Springett and Kearins, 2005; Sterling, 2010) and lifelong learning based on work of La Belle (1982) and Mocker and Spear (1982). The *whole systems thinking* should be taken into consideration to implement EfS in the educational system. Gomez, *et al.* (2014) emphasised that sustainability should be present in all fundamental higher education institutions activities

such as administration, education, operations, research, and public engagement. Additionally, whole higher education institutional learning should consider more extensive links with society.

The literature review identified that education and learning play a fundamental role in the knowledge-based social development. However, the learning process in higher education institutions is not mainly linked with the formal curriculum, like any other activities, for example, joining societies and social clubs, can enhance the learning experience and this is extensively discussed in work of La Belle (1982), Mocker and Spear (1982). In view of EfS, it is important to recognise the potential to understand an unsustainable world and the social and environmental challenges that we face. Learning starts at the beginning of a person's life and continues while interacting with each other and the wider world. This process is often habitual and subliminal. The education system could be seen as a self-conscious learning process that constantly evolving. Therefore, as shown in figure 4.4, formal, nonformal, informal and self-directed learning interweaving with various organisational levels (individual, group, and organisation) plays a fundamental part in learning about sustainability.

Higher education institutions should take a lifelong learning mindset, not only for students but also for academics. Academics should be able to develop their professional career in the educational environment and adapt their subject area in view of sustainability. Overall, learning should be considered as an active process that contributes towards change (Mazur, 1998). Learning could cause long-term changes in behaviour, values, and beliefs and could affect sharing knowledge across various groups and organisational cultures (Yorke, 2000). Therefore grounded on work of Lozano (2008) conceptual framework considers a change of attitudes at all three organisational levels that includes informational, emotional and behavioural. Consequently, agreeing with Velazquez, *et al.* (2006) monitoring, assessment and reporting are seen as needed to monitor and coordinate continuous improvement or change. This potentially could assist in creating a network that can tap into varied expertise on sustainability and share resources with various stakeholders inside and outside university. According to Lozano (2008) collaborative approach can assist higher education institutions to construct stronger, innovative and more sustainability oriented organisations. Overall, this conceptual framework is influenced by work of Sterling (2010). It can potentially aid higher education institutions (including business schools) gradually shift from being first-order learning, meta-learning to being epistemic learning system. This refers to lifelong, transformative change towards sustainability. Transformative education with interactive and learner-

centric approach has more potential to prepare students capable of addressing complex sustainability challenges (Wals and Corcoran, 2006).



**Figure 4.4 Conceptual framework investigating EfS**

Collected evidence shows that including sustainability in all aspects of the higher institution is not an easy task. The top-down approach that is linked with policies, strategic regulation plans are not sufficient. There is a need to embrace and research in extra curriculum and sustainability activities. Such efforts potentially aim to engage students, including staff and community whilst contributing to organisational learning. Crucially, embedding EfS into business and management studies delivered by business schools seems to remain mostly unexplored, supporting the need for empirical research in this area.

## Chapter 5: Methodology

### 5.1 Introduction

In the earlier chapters, the historical overview of international and national agenda linked with sustainability and higher education has been discussed. The literature review emphasised the complexity of the notion of EfS and shared different views from academics, practitioners, and policy makers. Increasing awareness of EfS, policies and research outputs, students' and employers' views, a holistic and systematic implementation should be considered when embedding EfS in higher education and the ways through which it can be studied.

This research concentrates on assessing the significance of sustainability in higher education institutions and investigates the case study of ARU (including LAIBS) to examine actions towards EfS. The researcher aims to explore how sustainability initiative at the business school contribute to the EfS agenda concentrating on the case of GoGreen Pilot'12. It is an innovative, collaborative teaching project aimed at offering action learning opportunities to students, universities, and organisations willing to improve their environmental management practices.

The literature review shows a holistic implementation of sustainability agenda is a multi-layered and complex process that requires further investigation. Literature analysis suggests that small scale sustainability initiatives potentially have a significant role in implementing sustainability agenda from operational, educational and research perspectives. As follows this chapter looks to identify and justify the implemented methodology assisting to investigate overall ARU sustainability agenda and GoGreen Pilot'12 as a part of EfS in management studies.

The methodological chapter begins by positioning the research within the interpretive philosophy being an exploratory approach to the topic in question. Although research in management studies is generally situated within the positivist tradition, various academics and practitioners Springett (2005) are now supporting a more diverse range of epistemological positions. In this perspective, the approach to case study proposed based on work of Eisenhardt (1989) and Yin (2009). Case study can represent a more suitable strategy of inquiry when investigating EfS within single settings that is ARU as will be demonstrated throughout this chapter.

The research strategy relies on a combination of mixed methods to resolve the proposed aims and objectives. At the **Macro** level this research concerns the case study of how EfS in ARU is embedded built on secondary data analysis. Academic views based on

the interviews were collected and analysed at LAIBS stands for **Meso** level of the research. At the **Micro** level, this research involves a case study of the GoGreen Pilot'12 in the fixed period (2012–2015). Next to the individual interviews, “rich notes”, blogs, art-based methodologies one of the methods used for collecting data was learning history adapted from action research. As defined by Parent and Béliveau (2007, p.73) a learning history is “designed to allow recognition of what has been learned in the past to guide stakeholders in the dialogical generation of a new future”. Learning history is a qualitative research method that considers human perceptions, actions, opinions and evaluations (Parent and Béliveau, 2007).

Additionally, this chapter includes the description of analytical tools in handling data analysis and quality of the research. The ethical consideration is also considered in conducting the research. Finally, this chapter concludes with a review of the main methodological aspects, setting up the scene for the following part of the thesis that includes the presentation of the case, data analysis and interpretation.

## **5.2 Philosophy of social science and philosophical position**

Social science research aims to understand, shape, and critique the complex world in which we live. As stated by Burrell and Morgan (1979, p.1) “all social scientists approach their subject via explicit or implicit assumptions about the nature of the social world and the way in which it may be investigated”. This definition justifies the practical view of the purpose of the philosophy. Burrell and Morgan (1979) show different worldviews and different assumptions that can be considered while doing research. As will be developed next, this research is located within particular ontological, epistemological and methodological assumptions.

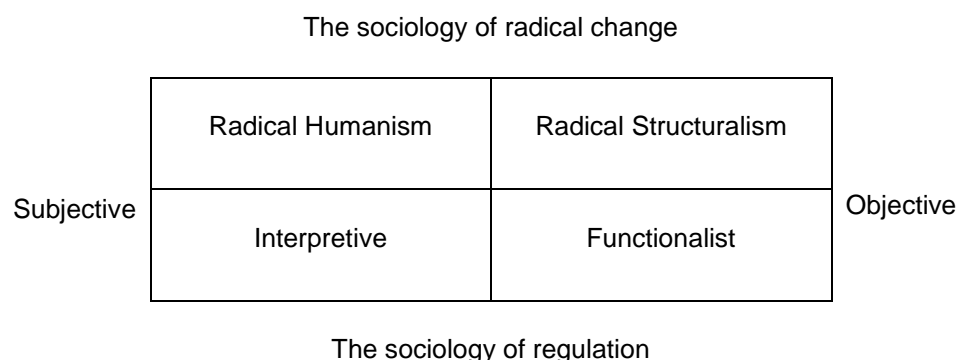
Ontology, in general, refers to the nature of *being*. In social sciences, this question relates to the nature of the *reality* and the individuals' connection and perception of it (Burrell and Morgan, 1979). While doing social research two main ontological views can be identified: realist and nominalist. Realists assume that the social world occurs externally to an individual and it is independent of the individual's mind. Individuals might not even know of the existence of certain hard, tangible social structures. This indicates that realists are following an objectivist approach to the nature of reality. In contrast, nominalists view the social world from the subjective angle. This means that nominalists

interpret the social world as full of labels, names and concepts created in individuals' minds that help to structure reality (Burrell and Morgan, 1979).

Investigating the nature of *reality* and making assumptions of an ontological nature generate knowledge. This is referred to as epistemology or the study of knowledge. In other words, epistemology is about how *reality* can be known. Epistemological questions allow researchers to outline the nature of knowledge claims. Following the above mentioned consideration of reality (ontology), epistemology follows the established contrast between a positivist and an anti-positivist (relativistic) perspective.

From a positivist point of view *reality* is something stable that can be observed and described. A positivist view assumes that reality can be predicted without interfering with the natural world. Researchers following a positivist approach gain their knowledge by identifying regularities and causal relationships between different elements. The key characteristics of positivist research include statistical analysis, to prove (verification) or disapprove (falsification) a hypothesis and an emphasis on the scientific method (Burrell and Morgan, 1979).

In contrast, not all research concepts could be investigated using objective measurement. Anti-positivist or an interpretivist perspective has been developed as an alternative epistemological perspective. It can be used by researchers needing a broader, exploratory investigation of the *reality*. For them, the social world is essentially relativistic, and knowledge could be obtained by studying individuals from inside through their direct experience. Anti-positivists view social science as a subjective enterprise and they aim at understanding *reality* rather than explaining it (Burrell and Morgan, 1979). Ontological and epistemological assumptions assist in justifying the ways of studying chosen phenomena, and that refers to the methodology of the research. Burrell and Morgan (1979) and Gioia and Pitre (1990) have identified four main research paradigms structured as objective - subjective, regulation - radical dimensions. Each of these paradigms has different philosophical orientations towards ontology and epistemological, and they are radical humanist, radical structuralism, interpretive and functionalist (see Figure 5.2, Table 5.1).



Adapted from Burrell and Morgan (1979, p.22)

**Figure 5.1: Four paradigms for the analysis of social theory**

**Table 5.1 Paradigms differences**

Paradigm	Functionalist	Interpretivist	Radical humanist	Radical structuralist
Goals	To search for irregularities and test in order to predict and control	To describe and explain in order to diagnose an understatement	To describe and critiqued in order to change (actually freedom through revision of consciousness)	To identify the source of domination and persuade in order to guide evolutionary practices (achieve freedom through provision of structure)
Theoretical concerns	Relationship; causation; generalisation	Social construction of reality	Social construction of reality; distortion; interest served	Domination; alienation; marker forces; emancipation

Adapted from Burrell and Morgan (1979, p.22)

The functionalist perspective has its origins in a realist viewpoint of ontology and a positivist approach of epistemology. Functionalists consider an objectivist nature of the social world in order to explain how society functions, stressing the regulation (control) in social activities (Gioia and Pitre, 1990).

The radical humanism paradigm stresses the importance of human consciousness in a subjective observation. Radical humanists view the social world from nominalist (ontology) and anti-positivist (epistemology) perspectives. The researchers seek to emancipate individuals from any sources of “domination, exploitation and repression by critiquing the existing social structure with the intent of changing it” (Gioia and Pitre, 1990, p.588).

The radical structuralism that adopts realist (ontology) and positivist (epistemology) views. The radical structuralist from an objectivist standpoint focuses upon structural relationships within the social world. Researchers aim to “understand, explain, criticise, and act on the structural mechanisms that exist in the world, with ultimate goal of transforming them through collective resistance and radical change” (Gioia and Pitre, 1990, p.588).

It is important to note that the radical humanist paradigm includes different social theories like French existentialism, anarchistic individualism and critical theory (Gioia and Pitre, 1990). Mainly, critical theory has influenced research in management studies and has formed the sociological branch of critical management studies (Burrell and Morgan, 1979). The critical theory is built upon different ideologies such as Marxism (Marx), the Frankfurt School (Theodor Adorno, Max Horkheimer, Herbert Marcuse, Erich Fromm); critical pedagogy (Paulo Friere); post-structuralism (Michel Foucault); feminism (Simone de Beauvoir, Betty Friedan) and post-modernism (Thomas Kuhn, Jacques Derrida)(Tadajewski, *et al.*, 2011).

The last paradigm for the analysis of social theory related with interpretative paradigm. The interpretive research tradition is linked with the nominalist view of ontology and anti-positivism view of epistemology. The interpretive paradigm underlines subjective interpretation of reality and seeks to understand the social world as it is. Researchers are interested in understanding social process created by individuals. Moreover, as stated by Burrell and Morgan (1979, p. 31) interpretivism seeks to “generate descriptions, insights, and explanations of events so that the system of interpretations and meanings, and the structuring and organising process, are reviled”.

Therefore, the philosophical position that is undertaken in this research is **interpretivism**. Interpretivist argues that truth and knowledge are subjective, as well as culturally and historically situated, based on people’s experiences and their understanding of them (Bryman, 2012). The interpretive paradigm has grounds of German idealist tradition of social thought such as Immanuel Kant (1724–1804) who was one of the first philosophers to articulate interpretive paradigm basic ontological and



epistemological foundations. Kant brought attention to spiritual nature of the social world. From the ontological prescriptive interpretivism paradigm is associated with relativism advocating that there are multiple realities and they are constructed by and are specific to members of the social groups (Burrell and Morgan, 1979). Additionally, time and context have a significance and that “what we can know reflects where and how knowledge is generated” (Braun and Clarke, 2013, p.27). Work of Wilhelm Dilthey (1833-1911), Max Weber (1864-1920), and Edmund Husserl (1859-1938) have established the theoretical foundation of interpretive paradigm during the 20<sup>th</sup> century (Burrell and Morgan, 1979).

Through interpretivist lens social world is created by the individuals, and it is a constantly evolving social process. The premises of the interpretive paradigm researchers question social world and seek to understand foundation and source of social reality. For instance, Dilthey introduced the notion of *verstehen* (understanding) which is defining characteristic of all theories positioned within interpretivist paradigm. To put in another words, researcher seeks reality from the complexity of perceptions and interprets reality from the perceptions of those who experience the phenomenon (Creswell, 2007). Some theories, knowledge, and ideas about the real world (for example, on EfS) could be fallible and implemented in practice in different ways. For the interpretivist perspective, it is possible to develop and differentiate those viewpoints by doing research (Burrell and Morgan, 1979). As will be seen in the next section, the current thesis is interested in the sociological foundations of the interpretive approach and its possibilities for addressing the case of EfS.

### **5.3 Research approach**

In earlier chapters, it was argued that the EfS represent a rich topic inviting further exploration. Under those circumstances, this thesis follows an exploratory research approach built on interpretivist observation. In particular, it aligns with an interpretive tradition, due to the nature of the different appreciations concerning EfS (Huckle, 2004). In management studies, this particularity is even more relevant when this field of EfS requires actual changes and questionings on the nature of management education (see Godwyn, 2017; Sauvé, 1996; Sterling, 2012). Therefore, it is important to take into account the view of different perspectives. In this thesis, different perceptions will be considered: including the reality as perceived by university staff, student and other stakeholders towards EfS. Furthermore, it is essential to understand how EfS is

considered by exploring the social structures and mechanism of this social phenomenon. In this regard Sayer (2000, p.17) claims that:

Meaning has to be understood, it cannot be measured or counted, and hence there is always an interpretive or hermeneutic element in social science.

Following an exploratory approach, based on the empirical and interpretivist social science, allows the researcher to investigate the world as it is, most importantly to question why and how the social world is the way it is (Sayer, 2000). Looking from an interpretivist lens leads to a better understanding of the implications of EfS (such as barriers and opportunities) to social institutions like universities and higher education institutions. Understanding of social institutions and different kind of interactions within it is followed by the notion of *participative reality* developed by Heron and Reason (1997) and he highlights that *participative reality* helps transcend the schism between realism and idealism. Heron and Reason (1997, p. 11) sees the reality as “subjective-objective, it can only be known through our mind's participation or interaction with it”. Therefore, this thesis is grounded on case study approach (Yin, 2009) that provides a deeper understanding of EfS at ARU and intensive analysis insight of GoGreen Pilot’12.

## **5.4 Research design**

With justifying interpretivism as the philosophical position and outlying exploratory, interpretivist approach, this section presents the research design. Non-positivist approach is very flexible regarding outlying the research design in social science. It can implement various research methods and that depends on the research aims because this approach does not offer *cookbook prescriptions*. As follows interpretivist lens enables researcher to implement a variety of methods, such as quantitative and qualitative methods and mixed methods (Sayer, 2000).

In line with interpretivist paradigm, the research design can lead to both intensive research based on qualitative data and extensive research based on quantitative data. While extensive research demonstrates how wide certain phenomena and patterns are in a population, in this thesis the intensive research design is preferred. Intensive research is centred “on exploring what makes things happen in specific cases of particular phenomena; what kind of universe of meaning exists in a particular situation” (Sayer, 2000, p.208). In this case, intensive research assists in underlying explanation of EfS at ARU and LAIBS. Additionally, focused on GoGreen Pilot’12 as a case of sustainability initiative at the business school. To explore this topic, this research adopts intensive Macro, Meso and Micro settings of inquiry for the different research questions.

At the Macro, the researcher uses a case study to investigate EfS in ARU, followed by Meso layer linked with LAIBS and finally Micro level explores GoGreen Pilot'12. According to Crotty (1998, p.42) "knowledge and meaningful reality are constructed in and out of interaction between humans and their world and are developed and transmitted in a social context". In this case the ARU, LAIBS and sustainability initiative GoGreen Pilot'12 represented a social construct. This research aims to document, understand, and interpret the social world from the standpoint of individuals (e.g. academics, students) who are participating in it (Cohen, Manion and Morrison, 2007) and bring into awareness hidden social forces and structures. As follows, the methodology is focused on "understanding phenomenon from an individual's perspective, investigating interaction among individuals as well as the historical and cultural contexts which people inhabit" (Creswell, 2007, p.8).

Case studies (in-depth study of events or processes over a prolonged period) often follow the interpretive tradition of research that enables observing the situation through the eyes of participants rather than the quantitative paradigm (Yin, 2009). A case study is designed to illustrate the instant action of a bounded system (Sayer, 2000). In this research, ARU is the bounded system aiming at embedding sustainability into its activities, for instance curriculum, community, campus, culture (Jones, Selby and Sterling, 2010). In contrast to positivistic approach, the case study provides an in-depth investigation of processes in a limited environment, and it enables the researcher to observe real people in real situations (Eisenhardt, 1989; Gibbert, Ruigrok and Wicki, 2008). As Cohen, Manion and Morrison (2007, p.39) argue: the unique feature of case studies is "that human systems have a wholeness or integrity to them rather than being a loose connection of traits, necessitating in-depth investigation". The case study also aids to map out the parts of the research questions about the potential of EfS in management studies by collecting views about the strengths, weakness, opportunities and barriers of sustainability interventions into the curriculum. It follows, by doing so, the attention starts to turn to the exploration of structures and mechanisms related to this phenomenon.

The Micro level includes cases study of sustainability project GoGreen Pilot'12 with longitudinal elements (Bryman, 2012). GoGreen Pilot'12 was the first sustainability project at the business schools involving multiple stakeholders such as student, academics, third sector organisations. Based on interviews with individuals, "rich notes", blogs, learning histories over a three-year period allows researcher to get a depth of the research and test innovative ideas. One of the main criticisms of the case study that the outcomes of the research cannot necessarily be generalised to the wider population (Yin,

2009). However, in comparison with the overall educational system, the concept of EfS in management studies there is limited research done in this area (Nonet, Kassel and Meijs, 2016). Scholars such as Cohen, Manion and Morrison (2007), also Springett (2010), have used the case study method in the educational environment to present rich data and to illustrate in-depth analysis of EfS in management studies.

## 5.5 Methods for generating data

In this research, a variety of methods are used in the research design, and these have generated data of different types. In this section the different research methods and techniques used, and data produced in Macro, Meso and Micro level of research are outlined. The table 5.2 shows the summary of main research levels and methods for generating data.

**Table 5.2 Levels and methods for generating data**

Levels of research	Methods for generating data	Stakeholders/ Participants
Macro	Secondary data	ARU
Meso	Interviews	LAIBS
Micro	Visuals/Art-based methodologies Graphic elicitation/ visual analysis	Students
	Reflective Practice	Students
	Learning history	Students and project team

The research method for gathering data used in Macro level was secondary data analysis. Secondary data is the data that have been already collected by and readily available from other sources (Bryman, 2012). To investigate actions towards sustainability and EfS in ARU the information was collected from ARU's official website, reports, and policies linked with sustainability and EfS topic. Official ARU documents include such as Corporate Plans 2009-2011 and 2012-2014 (ARU, 2011a; 2012), Learning, Teaching and Assessment strategies (ARU, 2011b) and research.

At the Meso level of the research design is the institutional and organisational context of LAIBS. In this task, the researcher uses several methods for data collection: dialogue and investigative methods. A dialogue method uses semi-structured interviews, asking

open-ended questions with the principal actors in LAIBS linked with EfS. This was an essential step taken to gain academic views on EfS at the university and the view of the business school. Additionally, interviews assisted to identify key opportunities and challenges confronted by academics practising EfS in ARU and LAIBS and overall in higher education. For the Meso layer of research, the general interview guide approach was followed that is more structured than the informal conversational interview. Structured interviews were selected to make sure that similar topics are discussed with each interviewee and give freedom to add more themes as necessary and ask for opinions on different issues (Turner, 2010).

Overall, three face-to-face interviews carried out with academic staff members and one academic from the University of Bristol providing more insight into management education and sustainability. Four interviewees may appear a small number. However, sample targeted experts and practitioners of EfS in higher education. The interviews were conducted at interviewee's place of work. A voice recorder was used to collect the data. The average interviews lasted around one hour. Table 5.3 shows details of the interviews, institution, and key subject area.

**Table 5.3 The interviews**

<b>Codename</b>	<b>Position in the University</b>	<b>Faculty / University</b>	<b>Subject Area</b>	<b>Date</b>
<b>Respondent 1</b>	Course leader of MSc programme and director of EfS	Faculty of Science & Technology / ARU	EfS	10/04/2014
<b>Respondent 2</b>	Senior Lecturer, Economics and International Business (Sustainability)	LAIBS / ARU	Sustainable Management in Practice EfS	10/04/2014
<b>Respondent 3</b>	Senior Lecturer in Management	Department of management / University of Bristol	Business and management studies	24/03/2014
<b>Respondent 4</b>	Senior Management	LAIBS / ARU	Tourism, Sustainable tourism and education	23/04/2014

At the Micro level, this research focuses on documenting GoGreen Pilot'12 project during 2012-2015. GoGreen Pilot'12 is the first pilot in its scale having multiple partners in the business school. The key project partners such as ARU academics, twelve students, twelve third sector organisations, the University of Bristol and the National Union of

Students as a team were working together for the first time, and it entails multiple dialogues between each of them. Additionally, the longitudinal research brought another dimension to the research aiming to understand the impact of sustainability initiatives on students' further development after their graduation.

Overall, the Micro level of the research contains four stages: Stage I: Pre-GoGreen; Stage II: During GoGreen; Stage III: After GoGreen; Stage IV: After GoGreen (1.5 years later). Appendix 2 summarises the main stages of Micro level of the research and shows description of each stage. During each stage different methods of gathering data were used. For instance, visuals and art-based methodologies, graphic elicitation/ visual analysis, reflective practice (rich notes) and learning history.

### **5.5.1 Visual and Art-based methodologies**

GoGreen Pilot'12 has included visual and art-based methodologies that use art as a tool for better understanding of sustainability and provides opportunity to collect participants views. Previous studies indicate that art can be suitable vehicles for connecting the rational and the spiritual realms associated with sustainability (Bathurst and Edwards, 2009). At the same time, the field of organisational aesthetics has established a number of connections with the field of arts and visual representations. At the theoretical level, these ideas are supported by a number of organisational scholars (Ladkin and Taylor, 2009; Meyer, *et al.*, 2013). Similarly, scholars such as Ruskin (1853) and Dewey (1934) stressed the importance of art-based methodologies should be integrated into the educational system. Ruskin's and Dewey's ideas resonate with EfS literature linked pedagogical approaches towards sustainability (Hansmann, 2010; Sterling, 2001).

The project used art-based methodologies and visual in two levels. The first level concerned the creation of a visual identity and branding. Marketing and branding plays an important part in private sector organisations (Lerman, Morais and Luna, 2018). and they are part of the cultural and visuals outlook of contemporary organisations including higher education institutions. Notwithstanding, universities seem to be slow in adopting the elements of marketing for their sustainability initiatives (Selby, Jones and Kagawa, 2009). Therefore, ensuring effective communication and engagement with various stakeholders, the project team created and implemented marketing strategy since the beginning of the project. Based on Bastos and Levy (2012, p.360) work the project team

have created various branding and marketing elements “that integrates the purpose of the object (Functions) with its human audience (People) and its impact on the senses (Art)”. Other marketing materials such as posters, flyers that include key brand attributes presented in Appendix 3 and 4. Topics linked with branding and organisational identity were discussed during group meeting (Stage II) and individual interviews throughout Stage IV.

On a second level, art-based methodologies were used in specific workshops. For example. Students have been introduced with art-based methods (Knowles and Cole, 2008) such as The Exquisite Corpse (Breton, 1972). During one of the meeting sessions with the students surrealist collaborative drawing game was presented. Throughout the session participants were drawing in turn on a sheet of paper then folded to conceal what they have created, and pass it on to the next player. The Exquisite Corpse game was piloted to tackle participants creativity, self-reflection and use as team building exercise (Ward and Shortt, 2013). Overall eleven drawings were produced, and the examples of the Exquisite Corpse drawing are shown in Appendix 9.

Another interesting example was the use of doll-making for sustainable leadership workshops. Here students’ were invited to make dolls based on work of Gayá Wicks and Rippin (2010). The session started with an overview of the concept of leadership and different examples of how leadership can be used in diverse organisational settings. Participants were asked to create their paper doll and reflect on the leadership characteristics of the doll. The idea was to transfer the narratives on sustainable leadership from the first person to the doll, therefore, being able to take distance and escalate different leadership styles (Gaya-Wicks and Rippin, 2012). After the exercise the participants were asked to share their experience, impressions and their views on sustainable leadership. The emphasis of this exercise was offering a tangible, meaningful, material expression of what leadership means for each of the participants. Appendix 10 include examples of Dolls-making exercise.

### **5.5.2 *Graphic elicitation/ visual analysis***

In this research the use of visual research methods was encouraged in two levels: firstly in the use of video recording and also in the use of graphic elicitation. For example, as part of the recruitment process potential candidates. were asked to record one-minute video justifying why they want to participate in the project. This helped to identify students’ skills, knowledge and the motives to be part of the project. As follows as a part

of methods for generating visual analysis were adopted. Video recordings convey an additional layer to the research that enables to identify participants' personal characteristics, assess their technical knowledge and creativity (Rose, 2016). Hence, videos can support an exploratory research design and extended data discovery. Overall, 12 videos were collected during Stage I: Pre-GoGreen. The main information about the participants is presented in the table 5.4.

**Table 5.4 GoGreen Pilot'12 participants**

<b>Participants' codename</b>	<b>Gender</b>	<b>Undergraduate / Postgraduate</b>	<b>Country</b>
<b>S1</b>	Female	Undergraduate	Ecuador
<b>S2</b>	Male	Postgraduate	Nigeria
<b>S3</b>	Female	Postgraduate	France
<b>S4</b>	Female	Undergraduate	UK
<b>S5</b>	Female	Undergraduate	Germany
<b>S6</b>	Female	Undergraduate	France
<b>S7</b>	Female	Undergraduate	Finland
<b>S8</b>	Female	Undergraduate	Germany
<b>S9</b>	Female	Undergraduate	Venezuela
<b>S10</b>	Male	Postgraduate	China
<b>S11</b>	Female	Undergraduate	Germany
<b>S12</b>	Female	Undergraduate	Hungary

Next to visual analysis, graphic elicitation as a part of visual research method was implemented (Bagnoli, 2009; Kearney and Hyle, 2004; Rose, 2016). Drawings based research method has its roots in organisational research and has been identified as a significant component researching about business and management education research (Meyer, *et al.*, 2013). Ward and Shortt (2013, p.2) highlighted the benefits of visual elicitation in comparison to quantitative research, stating that "participant produced drawings offer an additional an alternative method of enhancing student feedback by providing richer emotional response to learning and management education experience".

Drawing was extensively used as part of the reflective practice in this project. For example, in the first meeting with all participants was organized. During the meeting, participants were asked to draw their journey ("Road map") and how they see themselves



now and at the end of the project, what kind of skills and knowledge students expect to get. Participants were encouraged to identify any obstacles or opportunities they might face. The examples of student drawings presented in Appendix 8. Eleven drawing were collected and after the project students' reflection, feedback based on their drawing were filmed.

### **5.5.3 Reflective practice**

Based on literature review scholars such as Ghoshal (2005), Baden (2013) and (Godwyn, 2017) emphasised the lack of critical/reflective practices in management studies. Therefore, it was decided to incorporate elements of action research methodology based on work of Bradbury (2001) and Reason and Bradbury (2001) involving cycles of action and reflection. During GoGreen Pilot'12 participants were introduced and encouraged to apply skills and techniques in the area of reflective practice. Throughout the project students have been encouraged to keep "rich notes" of their meeting with the organisations. Additionally, participants were asked to record their observations, experience and their own feelings about the project, personal and professional development.

Next to the reflective journals ("rich notes"), the "private blog" was created. The online blog was produced using WordPress and accessible only for project participants. It is important to mention that this worked very well at the beginning of the project, however, the enthusiasm dwindled, and the blog was not continued. The main reason for this was the fact that the project tasks were overwhelming, and no time was allocated to write on the blog. Despite of the challenges 63 "rich notes" from 11 students and 9 online blog records were collected.

In addition to the individual reflection, group reflections were frequent in the development of the project and this research. For example, group discussions were recorded during the Global Sustainability Institute Conference where four students shared and discuss their experience in the project. The session took 30 min. and it was filmed by the researcher. In addition, a final group session was organised at the end of the project. This event focused on students' reflection about their personal and professional development just after the end of the project, as well as their views concerning the usefulness of their education and degrees at LAIBS.

Additionally, a longitudinal approach was included as part of the research and students were contacted 1.5 year after the end of the project. Ten individual skype and two face-

to-face semi structured interviews were conducted based on students' location. Work of Lo Iacono, Symonds and Brown (2016) explores how technological development enhances research practice. Technologies such as Skype provide researchers capability to interview participants using voice and video across the internet via a real-time connection. Skype opens up new possibilities by allowing researchers to "contact participants worldwide in a time efficient and financially affordable manner" (Lo Iacono, Symonds and Brown, 2016, p.1) therefore this method was selected. The average interview lasted for 40 min. Based on collected information students were asked to reflect on their experience during the whole project and identify their further personal and professional development. Students were encouraged to reflect on the overall studying and learning experience at the University and LAIBS.

#### **5.5.4 Learning History**

At the Micro level, the action learning is used to generate a case study of practice at a particular over a specified period. The different definition of action research can be revealed, for example Baden (2013, p. 28) sees action research as a process "of systematic reflection, enquiry and action carried out by individuals about their own professional practices". Taking into account the educational environment, educational action research could be defined as "an enquiry which is carried out in order to understand, to evaluate and then to change, in order to improve some educational practice" Frost (2002, p.25). Generally, Bassey (1998, p.93) proposes four key action research characteristics: 1) It is practical in nature; 2) focused on change; 3) the involvement of a cyclical process; 4) it is concerned with participation.

Action research can be used in a variety of areas, for example as a teaching method, learning strategies, evaluative procedures, management and control, etc. (Denscombe, 2007). In view of educational action research and EfS (Cohen, Manion and Morrison, 2007) have identified the importance of action research.

Firstly, action research enables researchers to investigate relationships between educational theory and practice. Secondly, practitioners can critically evaluate undertaken actions and teaching/learning strategies. Finally, action research can have a valuable impact on both higher education improvement (for example curriculum development) and the professional development of lecturers. Costello (2011) has used the action research method as a pedagogic choice to embed EfS in management studies curriculum. This method engages teachers and students that give a higher degree of control over their own learning and provides the basis for a responsible decision-making

process. Springett (2010, pp. 235-236) highlights the use of action research in a pedagogical environment as the ability of students “to see the world in the new way through active participation in practical life”.

For gathering data researcher has chosen to use the elements of learning history as a part of action research methodology. Founded in 1994 *learning history* is a qualitative research methodology that helps to reflect human perceptions, actions, and opinions inside the organisation. It is used in organisational research as it aids organisations become aware of its own learning (Bradbury, 2001). Learning history is associated with different theoretical streams. Foremost it linked with theory of learning that emphasises the importance of reflection and action (Kolb, 1984; Senge, 1990) and theories of social construction of reality that pays attention to history as a source of information about organisational actions and learning (Roth and Bradbury, 2008). Learning history as a data collection tool has been decided to use to document the key participants’ interactions with each other and to evaluate different learning experience throughout the project (Parent and Béliveau, 2007). As defined by Parent and Béliveau (2007, p.73) learning history is “designed to allow recognition of what has been learned in the past to guide stakeholders in the dialogical generation of a new future”. The topics of learning histories (see Appendix 2) were selected based on the outcome of previous learning histories. Overall, three learning histories were conducted and details including date and duration are shown in Table 5.5.

**Table 5.5 Learning History as a tool of collecting data**

<b>Learning History</b>	<b>Date</b>	<b>Duration</b>
First learning history (LH1)	4th March, 2013	2h 20min
Second Learning History (LH2)	5th May, 2013	2h
Third Learning History (LH3)	2nd February, 2015	1h 30min

## **5.6 Analysis of gathered data and research quality**

After identifying methods used in this research, this section outlines the strategies of the gathered data analysis. The strategy of data analysis means “the framework that is destined to guide the analysis of the data collected by the methods” (Parent and Béliveau, 2007, p.73). Qualitative data analysis involves making sense of raw data through the identification of emerging themes, patterns, by putting them into categories.

This process is a fundamental part of analytical processes on social science (Bryman, 2012). All three levels of research aims at building a *thick description* of the situation, by analysing the different types of material collected (Cohen, Manion and Morrison, 2007).

Recordings from the interviews, filmed materials, three learning histories, rich notes and blogs from all research levels, are transformed into verbatim transcripts (Bryman, 2012). The researcher undertakes transcription to get better engagement with the data. Data analysis were performed based on the guidelines of Ryan and Bernard (2003). For instance, authors suggested to look for repetitions, indigenous typologies, metaphors and analogies, similarities and differences, theory-related material when identifying core themes. The collected data were processed using NVivo 11 software (Nvivo, 2015). NVivo 11 is a qualitative data analysis software that by uploading various data sources such as videos, pictures, documents enable to have all-in-one research analysis. It assists the researcher in the analysis, codification and classification of data to pinpoint key themes, patterns, structures, related, in this case, with EfS based on all three levels of research.

#### **5.6.1 Validity and reliability**

By choosing the case study, it is essential to demonstrate the reliability and validity of the research. In fact, reliability and validity are considered the key measurements used to evaluate the research quality in social science (Bryman, 2012). These two characteristics of research quality are discussed in more detail as follows.

Firstly, during the research process, special care has been taken in documenting the different strategies and procedures, thus addressing reliability. This detailed record of documents assisted researcher to demonstrate transparency in the process and clarity concerning the instruments used. Secondly, regarding validity, the methodology used aims at presenting a *chain of evidence* (Bryman, 2012) to display the relationship between the data, the explanations offered and drawn conclusions.

As far as learning history is concerned, it is important to mention that in this research the learning history is used as a tool to collect data. Learning history aims to document the process and participants learning experience throughout and after the project. The gathered information and analysis from previous learning histories were shared in the second and the third learning history sessions (Reason and Bradbury, 2001). These workshops assisted to validate collected information (Yin, 2009). Learning history

enabled participants to relive their experience and for the researcher assisted in observing how it was perceived by the rest members of GoGreen Pilot'12.

Considering that this project is the first of its kind where multiple stakeholders were working for the first time. The learning history creates a platform for inquiring about different topics. For instance, what drawbacks and resources exist for participants own learning efforts? How can participants use the learning history's insights to increase their own capabilities? As an ultimate aim, the learning history can contribute to the future development and perception of the project.

## **5.7 Ethical considerations**

The ethical concern is taken into account ensuring the quality of the research strategy and its implementation. According to Roth and Kleiner (1998, p.58) the primary consideration of the ethics in social science is the importance to keep a balance between the "demands placed on researchers as professional scientists in pursuit of truth, and their subjects' rights and values potentially threatened by the research".

Before starting any data collection, it was ARU requirement to gain ethical approval for the research. The ethical approval process involved making an application for confirmation to the faculty's ethics committee. The application to the faculty's ethics committee outlines the research purpose, summary of the research design and strategy, also a description of participants to be involved and the outlined risks. Overall, ethical considerations were considered based on work of Plummer (2001) and (Bryman, 2012). For instance, elements such as the purpose, duration, and procedures of the research; informed consent; risks, discomforts, and adverse effects; right to withdraw; extent and limits of confidentiality; data protection; contact information for further questions regarding ethics.

The potential risk involves foreseeing risk to the research and risk to the participants. Concerning potential harm, it was claimed the research was low risk. The only foreseen potential risks to the participants of the research were physical and psychological risks, both of which were evaluated as low risk. For example, the physical risk was seen as a minimum almost negligible risk since the majority of interviews were completed in ARU premises, which the participants were already familiar with thus minimising discomfort, distress and inconvenience. Additionally, interview with the academic from the University of Bristol was conducted at the University of Bristol premises and Skype interviews were organised based on participants availability and therefore no physical

risks were considered. The psychological risk was also seen as minimum, because the participants were fully informed of this research and its contribution to their own learning and reflective process, also the research did not contain direct enquiring about sensitive topics.

Hence, in social research there still remains a certain level of risk while questioning of people is involved, including online and face-to-face interviews. This possibility was managed by the following activities: taking steps to ensure voluntary participation and participants can refuse to take part in the interview without any consequences for them; in advance informed consent of the research to participants; pledges concerning anonymity and data protection measures and sensitivity to participants (Bryman, 2012).

The sensitivity aspect of research is especially important in a case study when dealing with interview material (Yin, 2009). There is also a possibility that through dialogue with participants some negative or embarrassing data may emerge. This kind of information might concern an individual, group or the whole institution. To deal with this situation requires ongoing engagement with the participants. This is especially taken into consideration when collecting and analysing participants "rich notes" (Somekh and Lewin, 2005) and blogs (Hookway, 2008).

Information linked with the project had been already introduced to the participants before their involvement in the research. This information contains the project plan, purpose, methods and the outcomes of the research. Additionally, this information contains measures to protect the identity of participants, the role of the participants and affirmations about steps to ensure data protection. The information about the project has been disseminated in the form of brochures, flyers, participant information form and presentation. The primary purpose of this information is to justify what participation in the research would comprise and the risks involved.

Concerning gathered data security as well as the protection of personal details, data were stored on a password-protected external hard drive, which used the password-protected software. Online blogs were only available to the participants of the project and it was password-protected. Any hard copies of research materials were securely kept in the LAIBS faculty office.

Regarding conducting learning history as a part of action research in social science, a widespread ethical issue exists linked with the multiple roles of the investigator. The principal investigator could be seen both as a researcher and actor in the study. There is a possibility that the researcher's action could be seen unfair towards study outcomes, for example stressing the positive aspects and not considering negative ones. To

prevent those actions and to maintain the ethical integrity of the research several actions were implemented. First next to group conversations other data collection methods were used such as face-to-face interviews, participants' "rich notes", blogs and art-based methodologies. Second, undertaken activities linked with research have been documented to make sure transparency, also self-reflexivity as a researcher; and constant contact with the supervisory research team (Roth and Bradbury, 2008).

## **5.8 Summary**

This chapter has specified the philosophical position, different research methods used to capture information, the strategy used to analyse the information, the validity criteria used and the ethical considerations of the study. The interpretivist stand is acknowledged as a philosophical position together with an exploratory, qualitative approach for this research on investigating EfS in management studies. The Macro, Meso and Micro levels of research were identified with different methods for generating data. The Macro and Meso level of the research design is the institutional and organisational context of ARU and LAIBS, where secondary data analysis and face-to-face interviews were conducted. At the Micro level, this research focuses on GoGreen Pilot'12 sustainability initiative in view of EfS. At this level, visual and art-based methodologies, graphic elicitation/ visual analysis, and reflective practice were used to collect data.

For gathering data, learning history was selected. This method supports inclusivity and mutual learning through conversation and dialogue, both of which are at the core of action research nature. Overall, selected approaches keep in line with the ethical issues on research, but most importantly, they follow the participatory nature of the case study and the intention of keeping a developmental approach of systematic reflection and critical inquiry. Nvivo 11 software has been used to manage and organise all data and to code the information. The software assisted to identify key themes, patterns, structures, related, in this case, with EfS based on all three levels of research. This chapter has also outlined how research quality, validity and reliability have been enhanced. Documenting the different strategies of research, reflective practice, diverse methods used to collect data, clarity, and transparency assisted to overcome validity and reliability challenges. Finally, ethical considerations of the research process were highlighted. The flowing section presents research findings.

## Chapter 6: Macro level findings – ARU



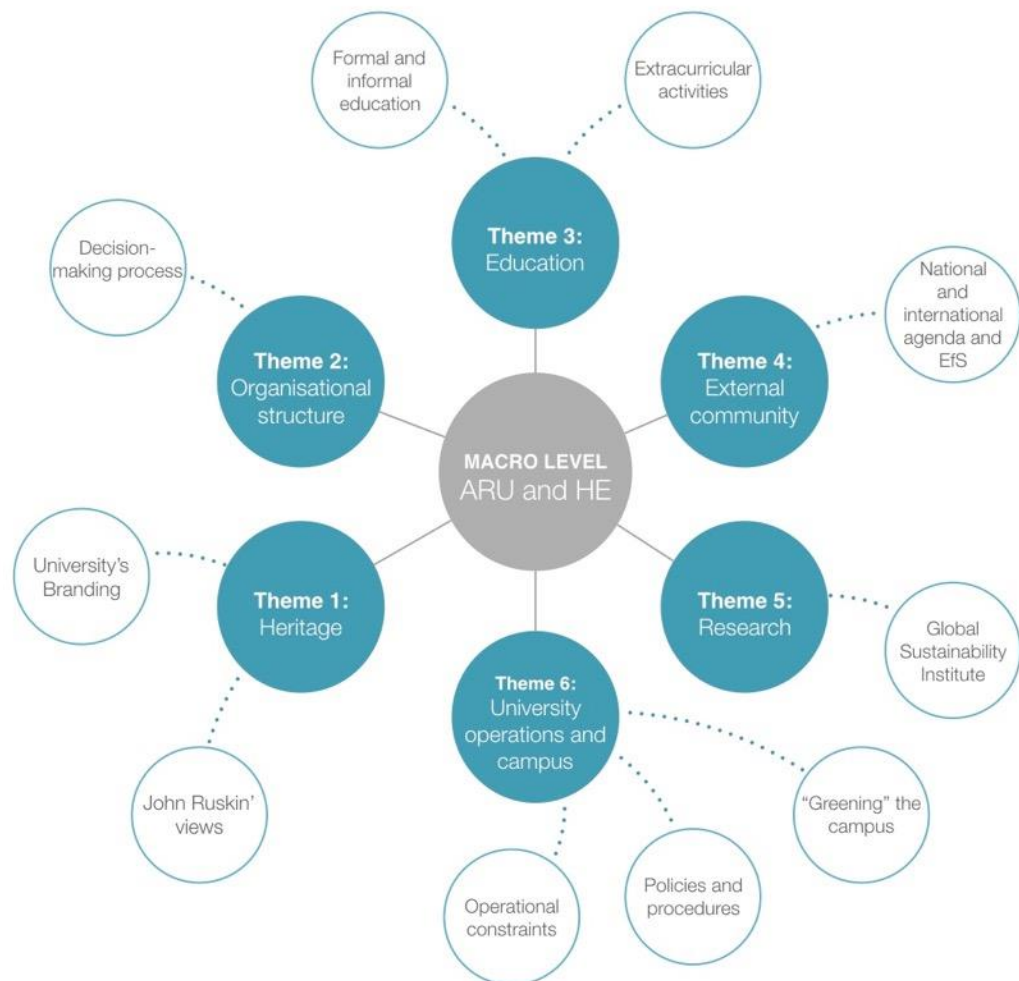
Figure 6.1: Research findings Macro level

### 6.1 Introduction

Chapter 6 is concerned with a Macro analysis of research that introduces the case of ARU evolution in EfS and is linked with higher education institutions and sustainability in the context of UK and worldwide contribution. This chapter includes a discussion of the findings of organisational change in the ARU policies such as Corporate Plan, Learning, Teaching and Assessment strategies and corporate decision and main events aiming to address sustainability and EfS. Figure 6.1 shows Macro level of the research and where it sits in the overall research process. The findings from the literature review discovered that addressing EfS in the UK higher education institutions is a complex and multi-stranded process (Wright, 2004). Higher education institutions have been criticised for becoming a big organisation that “unwilling to follow the direction from the central government about teaching and learning policies and practices” (Sterling and Scott, 2008, p.387). Therefore, every higher education institution is different regarding structure, programs they have to offer and regarding implementing sustainability strategies in teaching and learning activates.



Based on secondary data analysis six central themes were identified. Considering EfS and sustainability agenda the importance of (Theme 1) heritage; (Theme 2) organisational structure; (Theme 3) education; (Theme 4) links with external community; (Theme 5) Research; (Theme 6) and ARU operations and campus were considered (see Figure 6.2). This chapter aims to investigate organisational change linked with EfS to build a foundation for the following Meso and Micro research stages.



**Figure 6.2 Research findings in Macro level**

## 6.2 ARU and heritage

This section aims to analyse the organisation structure of ARU and its stakeholders as well as highlighting the organisational change regarding of EfS agenda. As seen in the literature review, higher education institutions have been at the forefront of creating as well as deconstructing paradigms, in particular about the purpose of education. In the field of EfS, higher education institutions have the potential to challenge the current

paradigms, epistemology, structures as well as practices when adopting particular strategies to embed sustainability as a principle and as a culture (Cortese, 2003; Lozano, 2006; Martin, *et al.*, 2013).

ARU has over 150 years of history; it started its activity as a School of Art, opened by an art critic, environmentalist, painter, architect and philanthropist John Ruskin in 1858 (ARU, 2015b). After becoming the Cambridgeshire College of Arts and Technology in 1960, it merged with the Essex Institute of Higher Education, and it was named the Anglia Higher Education College. Later, in 1991, it became the Anglia Polytechnic, and then, in 1992, it was awarded university status. Since 2005, Anglia Polytechnic University has been known as ARU. The name was selected after suggestions and consultations with staff, students, residents, communities and businesses (Hilliard, 2014), which indicates the importance of branding and perception of the university in the society. Throughout ARU's existence, it has expanded in the UK, and overseas. In 2013, the University has reached 31,500 numbers of students, within its main campuses in Cambridge, Chelmsford and Peterborough, and working with overseas partners. ARU became one of the most significant higher education institutions in the East Anglia region (ARU, 2014a). The organisational ethos and historical heritage correlate with John Ruskin's work as is evident in social media, the ARU website, messages in the buildings and promotional materials (for instance, see ARU, 2017a).

John Ruskin was a prominent figure in the nineteenth century and acknowledged for his writings on ethics, natural science, art and political economy. His work was related to social reform, the relationship between human beings and society, nature and architecture. He believed that educational systems should develop "*citizens of good quality and character, who are able to support themselves, and whose work is an asset to the community*" (Ruskin, 1858, pp.34-35). John Ruskin was an advocate for social and economic injustice and called for education system change to address the needs of the community (Tobin, 1931). The quote below summarises John Ruskin's principles of education:

"the cultivation of the land; bodily exercise, music, and dance; the practical arts, such as spinning, weaving, and sewing; self-sufficiency; natural history and local knowledge; obedience and accuracy; gentleness (compassion, mercy) to all creatures; the example of figures and events from past history" (Collingwood, 1900, p.32)

The opening of the School of Art in 1858, was an embodiment of Ruskin's appreciation of art, moral aesthetics, drawing parallels between national art and national virtue. He believed that elements such as music and dance, active learning, learning by drawing should be integrated into the educational system. Ruskin's ideas resonate with EfS

literature linked pedagogical approaches towards sustainability (Hansmann, 2010; Sterling, 2001). Ruskin (1853) in “Modern Education” criticised the current educational system for being homogenous and competitive, and he proposed a learner-centred approach:

“Among all men, whether of the upper or lower orders, the differences are eternal and irreconcilable, between one individual and another, born under absolutely the same circumstances. One man is made of agate, another of oak; one of slate, another of clay. The education of the first is polishing; of the second, seasoning; of the third, rending; of the fourth, moulding. It is of no use to season the agate; it is vain to try to polish the slate; but both are fitted, by the qualities they possess, for services in which they may be honoured” (Ruskin, 1853, p. 262)

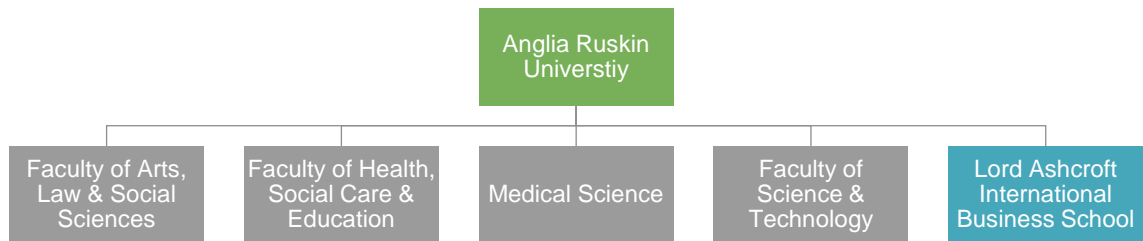
Overall, ARU historical heritage is related to John Ruskin’s work and featured in the university’s culture. Research findings indicate Ruskin's ideas resonated with sustainability and the EfS literature that shares importance on social justice, educational reform and interdisciplinary learning and active, learner-centered approach (Sterling, 1996; 2012; Stibbe, 2014). Furthermore, Ruskin's work presents as a driver for the University to embed sustainability into operations, learning and teaching activities.

### **6.3 ARU structure**

The decision-making structure influences organisational change towards sustainability (Sterling, 2001). *The Constitution of the Academic Committee Structure* document (ARU, 2017b) specifies the hierarchal structure of ARU (see Appendix 5). The Senate is the Academic Board of ARU and through the committees and subcommittees are organised into the main three tiers. The most senior Tier 1 includes six committees such as Quality, Enhancement and Standards Committee; Students Experience Committee; Research Committee; Honorary Degrees and Fellowships Nominations Committee; Award Board; and Professorship and Leadership Panel that directly respond to the Senate. The primary responsibilities of these committees are either a deliberative or a diligence function. The Vice-Chancellor chairs the Senate and its primary purpose is to manage and make strategic decisions about the quality and ethics of learning and teaching, research, maintaining and enhancing academic standards, and its policies and procedures relating to assessment, examination and awards. The university’s faculties are accountable to execute the Senate decisions (ARU, 2017b).

Similarly to other higher education institutions, ARU is generally organised into specialised areas of knowledge and traditional disciplines that are separated into faculties (Cortese, 2003). ARU consists of five main faculties (see Figure 6.3), which are

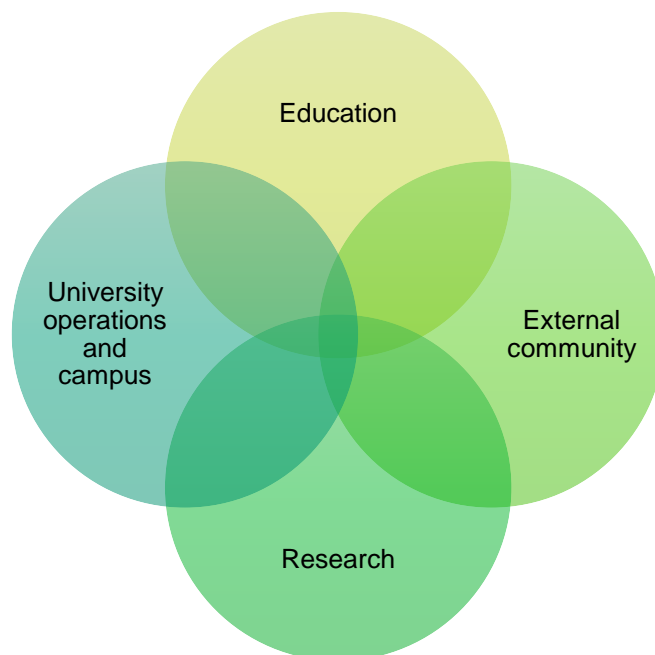
Faculty of Arts, Law and Social Sciences; Faculty of Health, Social Care and Education; Faculty of Medical Science; Faculty of Science and Technology; Lord Ashcroft International Business School.



**Figure 6.3 ARU faculties**

The evidence indicates the multi-layers of managerial and decision-making process of ARU. As discussed in the literature review, higher education institutions are complex organisations and various legislation and policy system, accreditation and funding bodies, students' and employers' views could influence organisation strategic decisions towards a sustainability agenda (Mader, 2012; Sterling, 2001)

## 6.4 ARU and sustainability



Adapted from Cortese (2003, p.18)

**Figure 6.4 ARU modelling sustainability as a fully integrated system**

As underlined in the literature review, higher education institutions operate in a continually changing environment. One of the aims of this section is to identify how ARU has embraced various challenges in its activities towards addressing sustainability. Anglia Ruskin echoes a “*fully integrated system*” approach (Cortese, 2003, p.18) linked with sustainability agenda. ARU engaged with four areas of operation: education (courses and formal education); research; university operations and campus; and community outreach (see Figure 6.4 presented in the previous section).

#### **6.4.1 Education**

EfS plays a significant role in ARU operations. In 2014, the new academic relations were introduced with sets of sustainability learning outcomes. ARU’s EfS team, part of Global Sustainability Institute, has sought to ensure that sustainability is promoted and embedded within every taught course across each of five faculties. Furthermore, the interns assisted in mapping the curriculum and creating a set of resources for the academic staff to address sustainability in learning and teaching practice. ARU can offer students master’s degree, PhD and MPhil programmes linked with Sustainability. Next, to the strategic level involvement towards EfS, it has been seen to emerge in non-formal activities, societies and research projects in this area. Various projects and initiatives could be classified as:

- **Institutional:** Includes student engagement in campus-based research (e.g. energy auditing, waste processes, ecological foot-printing, student activities and societies such as Fairtrade fortnight, volunteering and Student Switch Off and Green Pitch competition. Green Impact and Outreach activities during Festival of Ideas and Science Week;
- **Local:** 2012 Sustainability Art Competition, Outreach activities during Festival of Ideas and Science Week, Church of England’s Shrinking the Footprint programme and GoGreen Pilot’12;
- **International:** International Community Experience (ICE) Mission Croatia, Ukraine and Maasai (ARU, 2014d)

The discussions linked with education refer to the formal curriculum. However, EfS scholars stressed the importance of the informal education as next to formal education contributing towards lifelong learning (Brennan, 1997; Engelhart, 1930; Knapper, 2006). In agreement with Sterling (2001; 2010), and that the transformation of higher education institution towards sustainability will not only happen through the corporate policy or institutional structure but also including pedagogy, formal and informal curricula.

### **6.4.2 External community**

ARU is aiming to make a stand in the international and national arena towards sustainability. For instance, in 2012, ARU was the first UK University to sign the Higher Education Declaration for the Rio+20 Earth Summit that draws a commitment to the development of sustainable practices for Higher Education Institutions (ARU, 2014e).

At the national level, ARU was a part of The Higher Education Academy's (HEA) The Green Academy to address the challenge of embedding sustainability in higher education institutions. The first Green Academy change programme collaborating with 8 HEIs started in 2011-2012, that was focused on curriculum development and students experience. Drawing on the success of the first Green Academy in the following year it has been launched the second Green Academy (2012- 2013). ARU took part in the HEA's Green Academy, containing ten UK institutions concentrated on the whole strategic institutional change towards sustainability, and on enhancing the overall students experience from a holistic point of view (ARU, 2013b; 2014e; HEA, 2014).

The GoGreen Pilot'12 became one of the projects in the ARU for the staff and students engagement. It was recognised by the Green Gown Awards 2013 organised by The Environmental Association for Universities and Colleges (EAUC, 2014a). Additionally, various local and international activities have been identified in the 6.4.1 section.

### **6.4.3 Research**

From the Learning and Teaching aspects, in 2011 the Global Sustainability Institute (GSI) was established as an institute for research and supporting policy making, political, financial, industrial and social frameworks that contribute to challenges of sustainability. The principal areas of research are Consumption and change; Global risk and Resilience; and EfS (ARU, 2015a).

The new EfS director role responsible for research and teaching in EfS became part of the GSI agenda. Also, GSI is closely working with ARU Environment Team including ARU Estates and Facilities that is responsible for keeping in line with ISO 14001 and delivering environmental policy and strategy (ARU, 2015a). EfS and ARU Estates and Facilities teams are working towards engaging staff and student towards a sustainability agenda (ARU, 2015a). Since 2012 several research papers have been published

showcasing sustainability practice in the University (Acevedo and Johnson, 2013; Acevedo, *et al.*, 2012).

#### **6.4.4 University operations and campus**

As mentioned in the literature, higher education institutions have initially approached sustainability as “greening” their estates and campuses (Wright, 2004), which usually results in significant savings in utility bills. ARU took a similar path and in 2003 started their first attempts to improve their environmental sustainability through the implementation of programmes as energy consumption, responsible procurement and travelling. In 2009 university was accredited with independently certified the international standard ISO 14001 (Greig, 2014). ISO 14001 provides general guidelines for ARU to set up an effective environmental management system (EMS). It must be mentioned that ARU was one of the first university in the UK to achieve this accreditation, which illustrates their early commitment to the values and processes of sustainability in higher education.

Apart to the implementation of monitoring, reduction and reporting systems in areas such as energy, water, waste, travel, biodiversity, purchase and estates, ISO 14001 encourage higher education institutions to consider revisions on formal curriculum and promote staff, students and external partners engagement toward environmental issues. Albeit there were additional drivers in consideration of EfS at ARU, the guidelines provided by ISO 14001 had the direct consequence of including education as part of ARU environmental policy:

“EfS – embed sustainability within our curriculum and promote the use of our campus as a ‘living laboratory. Engagement – raise awareness of our environmental programme amongst our staff, students, partners & visitors and support adoption of positive environmental behaviours” (ARU, 2014b, p.1)

Likewise, any other EMS, in order, to retain the ISO 14001 certificate, processes about EfS should be measured, monitored and reported. Following this initial consideration, EfS moved from environmental perspective towards ARU committee structures, departments and faculties to the top management level (Greig, 2014). The Global Sustainability Institute was established, and ARU was one of the first institutions actively participating towards EfS in the national and international arena (see section 6.4.1). Including ARU participation in the Green Academy and contribution to the UN Rio+20 conference. As a result of this progression, sustainability and EfS became an essential part of ARU Corporate Plans since 2009: Corporate Plan 2009-2011, Corporate Plan

2012-2014 and Corporate Plan 2015 -2017 (ARU, 2011a; 2012; 2014c) and also in the Learning Teaching and Assessment Strategy (ARU, 2011b). Based on ARU documentation, the University aims to include sustainability in every aspect of its activities:

- Starting from facilities and operations - “*exceed national and sector benchmarks for the sustainability of our buildings and processes.*”
- Research - a commitment to internationally recognised research in sustainability
- and to making overall students’ experience - a commitment to making sustainability a part of every student’s experience

Based on the latest Corporate Plan (2015-2017) (ARU, 2014c) table 6.1 below maps out university’s commitments towards sustainability and presents a specific measurable target.

**Table 6.1 ARU commitment to sustainability**

<b>Theme/Objectives</b>	<b>ARU’s Corporate Plan indicator towards sustainability</b>
ARU Mission	...We are passionate about collaboration, innovation and transformation to enhance social, cultural and economic well-being (p.2).
ARU Vision	...We want our concern for a sustainable environment to inform every aspect of what we do (p.2).
Students experience	Goal 3: We will increase student engagement within and outside the curriculum, so as to enrich students’ time at Anglia Ruskin, support their academic success, give them a distinctive ‘edge’ in the job market and enrich their lives after university.
	... to incorporate sustainability across the curriculum and embed it generally in student life and activities. Based on 41% baseline ARU aiming to achieve 70 % by 2017 students who say that sustainability has been a feature of their experience (p.6)
Staff engagement and research	Goal 6: Every academic member of staff will be involved in research in their discipline, and every Faculty and academic department will have world-leading research (p.10)
	Make sustainability a theme that runs through much of ARU research work (ARU, 2012, p.12).



Estates development	<p>Develop a sustainability strategy reflecting ARU Environmental Policy, focused on reducing energy costs. First, staff and students: by 2017 ARU is aiming to reach 428 Kg CO<sub>2</sub> carbon emissions per staff and student full time equivalent (base line 483 KgCO<sub>2</sub>).</p> <p>Second, reduction in overall carbon emissions by 33% (tonnes CO<sub>2</sub>) in 2017 (p.16)</p>
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Adapted from Corporate Plan (2015-2017) (ARU, 2014c)

Based on a content analysis of ARU Corporate Plans since 2009, several activities remain vital areas and have maintained their importance. For instance, to engage students in EfS formal and extracurricular activities; strengthen staff awareness and encouragement towards research into sustainability and developing estates and processes with strong environmental conches.

Management changes have followed on these topics, such as the creation of a new post of Director of EfS responsible for embedding sustainability across the formal curriculum and making links with the informal curriculum explicit. Also, EfS became part of the Quality Assurance office that is monitoring, measuring and reporting the progress of embedding of sustainability into the curriculum (Greig, 2014). In 2009 sustainability committee was introduced aiming to discuss various issues linked with EfS at the University level.

The literature on students' development in higher education and EfS emphasise interconnection between informal, non-formal, formal and lifelong learning and that aids to enhance students' experience inside and outside the university (Blewitt, 2013; La Belle, 1982). However, formal curriculum remains the priority. Next to corporate plans, embedding sustainability in all curriculum taught in ARU are addressed in University's Learning, Teaching and Assessment Strategy (ARU, 2011b) and Academic regulations (ARU, 2013a). In the University's Learning, Teaching and Assessment Strategy (ARU, 2011b) the extracurricular activities also mentioned. It echoes the main goals and strategies presented in the Corporate Plan (2012-2014)(ARU, 2012). Table 6.3 offers the key objectives of ARU's Learning, Teaching and Assessment Strategy that are linked with sustainability and EfS.

**Table 6.2 Sustainability in ARU's Learning, Teaching and Assessment Strategy**

Theme/Objectives	ARU Learning and Teaching Strategy 2011  Commitments to Sustainability
Guiding Principles 10	Students and staff engage with education for sustainable development (p.1).
Ambition	An educational process that integrates the principles, values and practices of sustainable development (p.3)
Theme 11	Students and staff engage with education for sustainable development We shall help students 'develop the attitudes, skills and knowledge to make informed decisions for the benefit of themselves and others, now and in the future, and to act upon these decisions.' (UNESCO, 2010) This is a key preparation of our students for a global outlook, including their employability and ability to cope with the challenges of the future. Education for Sustainable Development (ESD) should permeate the whole student experience (p.5).
Aim 2: Improving Assessment and Feedback Practice	Implement online submission processes which enable students to submit written coursework either on- or off-campus and contribute to our EfS targets. (p.8)
Aim 3: Supporting and Engaging Students	Embed an ethos of EfS, which will feature throughout students study and support processes (p.10)
Aim 4: Using Technology Enhanced Learning	Digital technologies will enhance and create innovation in the student experience support our sustainability agenda (p.12)
Aim 6: Curriculum Design and Enhancement	Ensure that the curriculum is embedded with learning and teaching materials and our assessment practices address the issues of sustainable development (p.16). According to the millstones in 2013 -2014 100% of courses will include EfS in course review and approval.

Additionally, every course taught in ARU has to comply with the Academic Regulations (ARU, 2010), which act as a regulatory framework, legally binding and approved by the ARU Senate, to ensure all ARU activities follow the guidelines and precepts of the Quality Assurance Agency (QAA) for Higher Education UK (QAA, 2014a). In this context, the task of including sustainability as a part of learning outcome in Academic Regulations became a difficult challenge. According to Alison Greig (2014, p.32) including

sustainability into academic regulations in ARU was confronted with three major concerns:

- Sustainability was an ephemeral addition to the higher education agenda and should therefore not be responsible for a change in core (and operational) educational policy;
- Sustainability was already covered in the regulations by a reference to ethics;
- It would be very difficult to measure and monitor the embedding of sustainability in courses through existing Quality Assurance processes. (Greig, 2014, p.32)

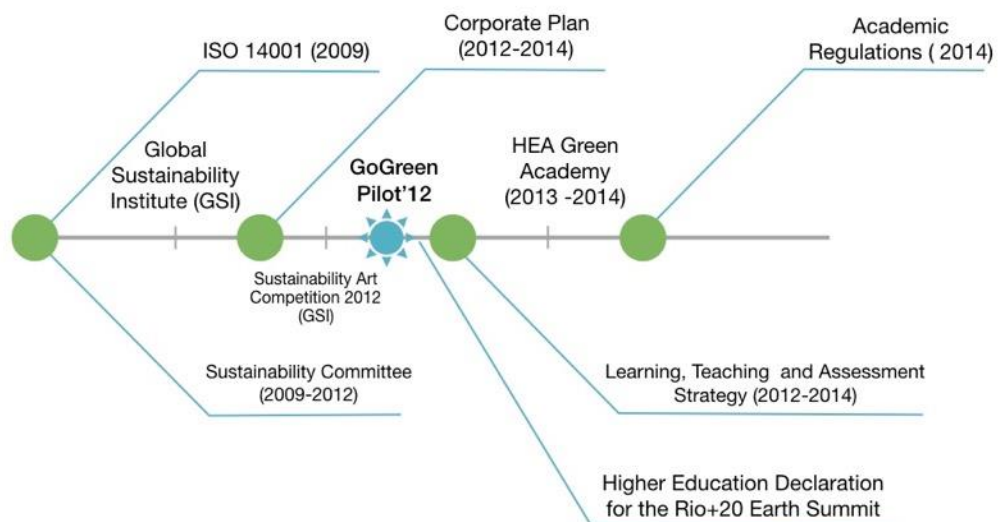
Greig (2014) findings indicate the diverse organisational culture and views in the ARU associated with sustainability agenda. In contrast, there was a commitment to EfS from the Vice-Chancellor, some senior managers, academics and to address sustainable in ARU. The Director of EfS played a significant role in implementing EfS agenda into practice (ARU, 2014e; Greig, 2014). In 2013, September the progress was made in the inclusion of crucial words linked sustainability in the Corporate Plans and the updated version of Academic Regulations. Table 6.4 summarises vital changes has been made in a general learning outcome that all will affect all courses taught in ARU.

**Table 6.3 ARU Academic Regulations and Sustainability**

	<b>Level 6</b>	<b>Level 7</b>
Knowledge and Understanding:	Sustainability: The learner has the awareness and ability to apply their knowledge and understanding and work with others to take action which promotes the principles of sustainability.	Sustainability: The learner has the awareness and ability to apply critically their knowledge and understanding and work with others to take proactive action which promotes the principles of sustainability.
Affective and transferable skills (generic)	Sustainability: The learner has developed the attitudes and skills to make informed decisions that reflect care, concern and responsibility for themselves, for others and the environment, now and in the future	Sustainability: The learner has developed the attitudes and skills and is able to apply their knowledge to make informed decisions and take actions that reflect care, concern and responsibility for themselves, for others and the environment, now and in the future.

Source: ARU (2013a)

Overall, data analysis revealed John Ruskin's views are part of organisational ethos and reflects the significance of early adoption of sustainability in ARU. The strategic effort towards sustainability begins with universities' vision, senior management decisions (Velazquez, *et al.*, 2006). Through the vision and mission statements highlighted in the Corporate Plan university's leaders identifies to what extent sustainability will be addressed in three directives such as research, education, community service and knowledge transfer. It has an impact on academic, administration and operations and on all levels the higher education policy system, institutional governance. (Beringer and Adomßent, 2008). ARU stands out among other higher education institution in promoting and embedding sustainability in policies, corporate plans, research, teaching and learning. Also, ARU one of the first higher education institutions actively participating in national and international initiatives (e.g. Rio+20, HEA Green Academy). Established EfS Director role and including sustainability in the corporate plans, academic regulations plays a prominent function when engaging students and widespread academic community with sustainability. In relation to formal curriculum, informal curriculum and extracurricular activities similarly plays a significant role in teaching and learning and students' development. The Figure 6.5 illustrates ARU various events, policies that ARU achieved.



**Figure 6.5 Key events, policies and procedure linked with sustainability and EfS in ARU**

Though, scholar's findings indicated some resistance towards sustainability agenda in ARU (Greig, 2014). ARU case study resonance to the organisational, operational and cultural constraints specified in the literature. Researchers agreed that to address

sustainability in the higher education is a challenging task. Modern universities become encrusted with policies, procedures, committees, and organisational layers that could discourage risk-taking, creativity and innovation. Consequently, sustainability agenda could be trapped between ultimate goal of being sustainable university and actual operational perspective (Sterling, 2013). Higher education institutions including ARU face with operational challenges such as:

- **Financial security:** achieving financial security and stability through research, consultancy, external income, students' fees;
- **Reputation:** university position in various ranking tables nationally and internationally. Such as the student feedback on experience in higher education institutions in The National Student Survey (NSS) (NSS, 2014) and Position in People and Planet University League – university environmental and ethical performance (People&Planet, 2018). The quality of research – REF (Research Excellence Framework) ranking (REF, 2014).
- **Staff qualification, turnover and retention of staff.** Making sure that academics are highly qualified and research activities. Effective recruitment and retention policies are in place.

The notion of organisations acclimatisation to the current environment based on various external and internal factors is grounded in the notion of organisational learning (OL) (Shrivastava, 1983). Considering of sustainability agenda, ARU is a learning organisation, following the processes of “adaptation, information processing and the institutionalisation of experience in the organisation” (Shrivastava, 1983). ARU showcase the importance of senior management decisions, regulations and brings attention to students and members of staff engagement. Therefore, different stakeholder groups must be considered and involved in successful implementation of sustainability agenda in the university. Sustainability is continuously changing process. Therefore, an additional dimension of assessment and reporting should be considered (Lozano, 2006). As Figure 6.4 indicates the GoGreen Pilot'12 project was in the middle of various changes in the University and Macro level analysis gave a better understanding of the overall University's environment towards sustainability. The following chapter will introduce finding of the Meso and Micro levels of the reach, specifically concerned with ARU business school (LAIBS) and sustainability agenda and followed by analysis students' experience in the GoGreen Pilot'12.

## Chapter 7: Meso level findings – ARU and LAIBS

### 7.1 Introduction

Chapter 7 outlines the findings appearing from the Meso research phase. First, the results from Meso level will be introduced, which links to the exploratory research process identifying four academics views linked with understanding and practising sustainability, EfS in the business and management studies in LAIBS and ARU.

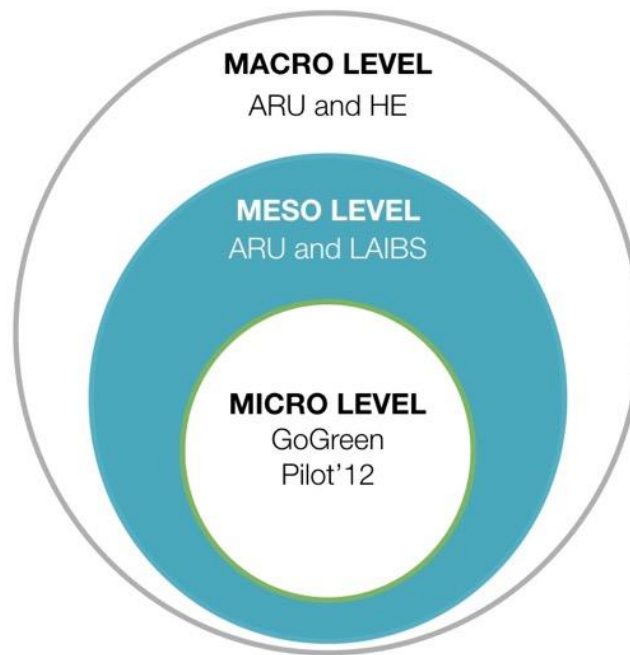
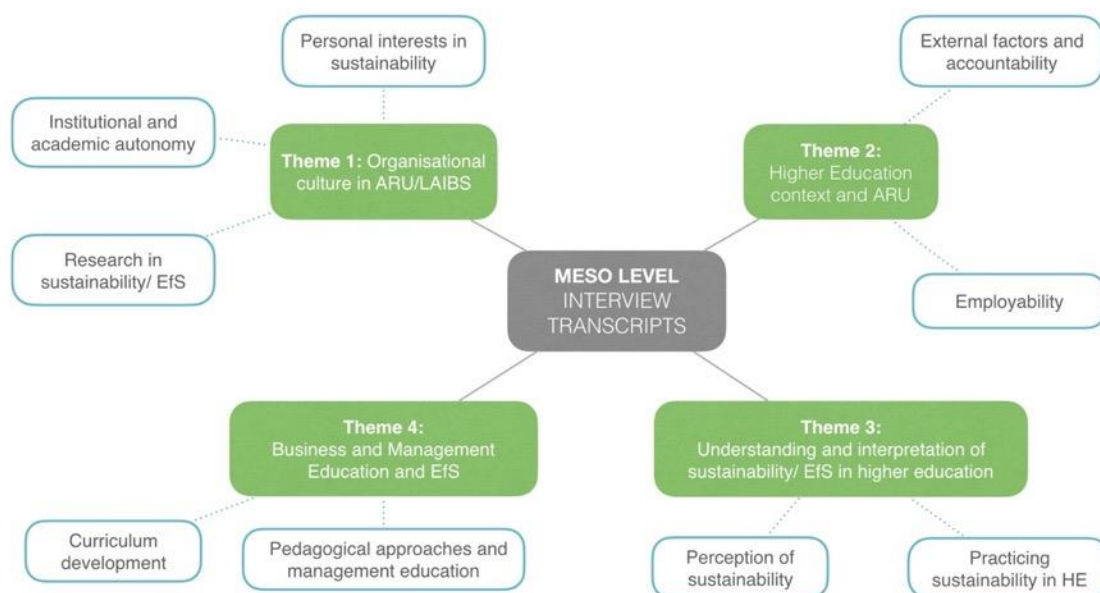


Figure 7.1 Research findings in Meso level

This chapter outlines the findings from the Meso level of the research. Meso layer of the research is considered as exploratory part of the research. This was an essential step taken to gain academic views on EfS at the university and the view of the business school. Additionally, it assisted to identify key opportunities and challenges confronted by academics practising EfS in ARU and LAIBS and overall in higher education. This chapter summarises the findings of the four interviews carried out with academic staff members and one academic from the University of Bristol providing more insight into business and management education and sustainability.

Based on the interview analysis four central themes identified. In the view of EfS academics highlighted the importance of (Theme 1) organisational culture; (Theme 2) emphasised the context of higher education environment; (Theme 3) shared

understanding and interpretation of sustainability and EfS in higher education and (Theme 4) addressing EfS in business and management studies through curriculum development and various pedagogical approaches. Based on collected data the central four themes were identified followed by nine subthemes as shown in Figure 7.2.



**Figure 7.2 Themes and categories identified for the Meso level**

## 7.2 Organisational culture in ARU and LAIBS

Organisational culture is identified by various considerations raised by respondents that are linked with culture inside ARU and LAIBS. Organisational culture is implied through exposed values, beliefs and assumptions, organisation actions and processes inside the University that could affect university's community (Schein, 1996; Tierney, 1988). A few organisational factors that influence academic views and actions occurred during the individual interviews that could be linked with organisational culture. Such as historical heritage, academic freedom, research focus, personal interest in sustainability and university's senior management support towards embedding sustainability. Respondents emphasised that every higher education institution is different, and every university must find their own way to address sustainability in their activities.

According to respondent historical heritage plays a significant role in the current organisational culture in ARU. Respondent 1 emphasised, the awareness of

sustainability is evident in John Ruskin's views, the founder of ARU, and it still matters nowadays. John Ruskin views regarding education (Collingwood, 1900; Ruskin, 1853) was controversial and novel at that time. However his ideas such as holistic approach, interdisciplinary approach, action learning are the foundation of EfS literature.

Interviewees praised ARU initiative to be one of the first higher education institutions to address sustainability at the institutional level. For instance, setting up the targets and key guidelines for academic staff that highlighted in the Cooperate Plan 2012-2014, The Learning, Teaching and Assessment and in the academic regulations (Greig, 2014). Respondents emphasised university's commitment towards embedding sustainability into its activities including all courses and curriculum, as evidenced in the cited documents. An example of such continual support is the appointment of a Director of EfS, to promote sustainability in the formal curriculum, and to enhance students experience throughout the university. The post was established for the three years period, and sustainability was add-on agenda as Respondent 1 considered that:

"My job is to try to convince people that this isn't an agenda. Because once it gets viewed as an agenda, then it becomes a bolt on to the university. It becomes fashionable; it becomes seen as additional. A nice to have but not essential. I'm trying to do what other people in other universities are trying to do. I actually ignore the term sustainability. This is about a fundamental change in education." (Respondent 1)

The interviewee specified barriers and challenges of "*selling*" sustainability to some senior management at the University level, due to divergent views of what sustainability is, especially in the tension between different stakeholders such as senior management and academics.

"[Sustainability] it's in the Corporate Plan, and it is astonishing that while people might fight tooth and nail to stop it getting in there, once it's in there they all fall in line and that's the nature of Corporate Plan. So, we've got senior staff on board because it's in the Corporate Plan, this is what they need to apply themselves too. So, we've got senior level engagement in the agenda but that's only part of the university and there is a whole story about how that fits in with the sort of purpose of the university. .... Corporate Plan you think even now will have based on views in media and so on even now you think that .... some people will be against. ....oh, it will be a big battle." (Respondent 1)

From the quote above it could be seen that addressing sustainability in the organisational policies is not enough. This echoes research findings in the work of other scholars such as Velazquez, *et al.* (2006) when designing sustainable university. The misconception of the importance of sustainability in higher education emerged as a barrier to implement



sustainability inside the university, which also have been flagged up by scholars in EfS literature (see Sterling, 1996; 2013).

Some interviewees share their views linked to sustainability agenda in the business school. The respondents highlighted that addressing sustainability could be add-on itinerary followed by the time, financial constraints and lack of people's commitment. For instance, respondent said:

“...the key thing is we make the surplus and we make enough money for the Business School to run. How that happens: there are a variety of strategies, but I think, sometimes, things have to be compromised. It might be the sustainability, but it might be another agenda, so that is why it is important to embed it where we can...” (Respondent 4)

One of the main challenges is to reconcile the different agendas on sustainability, research and students' satisfaction as illustrated by the following:

“I feel that sometimes that constraints about the resources and we don't have enough money for this and that don't let you see what it is around the corner and realise that if we, for example, could become a trademark or a benchmark for sustainability that can be something very good for the school. And we have the elements to get it. Yes, but there are sometimes other priorities we need to get more students ... So, then the focus is lost.” (Respondent 2)

Changing policies and new role are significant to pursue the agenda on sustainability, yet, it requires specific efforts in strategic operations, resource allocation, staff engagement and development, as well as constant monitoring systems (Gomez, *et al.*, 2014). Only then organisational culture can be changed, as suggested by several researchers in this area (Cebrián, Grace and Humphris, 2013; 2015; Mader, 2012). Furthermore, similar discussions of barriers addressing sustainability has been identified in the literature review. As explained by Sterling and Scott (2008, p.387), “higher education institutions are complex systems, having a considerable degree of autonomy and unwilling to follow the direction from central government”. However, some scholars remain sceptical about the ideological aspects of sustainability and its operational application (Jickling, 1992).

Participants identified a few factors that encourage and discourage academics practice sustainability in their activities. For instance, the sustainability champions are identified as crucial contributors towards sustainability agenda in the University at the strategic level and teaching practice. These champions can be both individual academics or members of staff which going beyond their duties and responsibilities in the University and displaying their interest in sustainability. They are passionate, self-motivated and self-driven personalities that are committed to addressing sustainability into day-to-day activities. The sustainability champions play a significant role in addressing EfS in the

University and driving this agenda forward. Even though they are facing challenges when comes to research, administrative work, time allocation and teaching commitments. The quote below shows Respondent 1 highlights the importance of sustainability champions in the ARU:

“...you have to have a number of individuals who are passionate, who are forward-thinking, who are able to drive that change agenda....[ Sustainability champions ]...share a genuine interest about doing things through a sustainability lens so that is happening in a small number of departments across the faculties” (Respondent 1)

Nevertheless, the academic staff identified the main barriers to address sustainability. Interviewees highlighted lack of competence and capabilities of academics and lack of support from management.

“... think this is a good idea but they don't perhaps know how they can articulate it. But they might have a fundamental feeling that this is what they came into education for. It is about providing somebody who has these tools and so from those kernels of interest you can develop a movement which is bottom up and comes in within the management department.” (Respondent 1)

Overall in the University, academic freedom regarding research and teaching, and the current academic culture influence embedding sustainability into practice. Research institute such as GSI provides an insight how to address and practice sustainability at local, national and international levels. Interviewees stressed the importance of the GSI Institute activities and that there is still lack of knowledge and understanding of embedding EfS.

“...the Global Sustainability Institute ...is a research institute that also gives me an opportunity to actually find out what that means embedding sustainability in the curriculum sounds easy, nobody really knows what it means and how to do it.” (Respondent 1)

From the individual academic perspective participants identified challenges when comes to research output. Academics emphasised pressure from the senior management considering the Research Excellence Framework (REF), workload allocation, and time constraints to do research (Smith, Ward and House, 2011) and that sustainability topics may not be welcome in top-ranking journals.

“Well now there are a lot of problems in business schools at the moment in terms of tensions between research and teaching. So, on one hand there is all this Research Excellence Framework and then you need to publish in certain number or certain type of journals. Those journals are very mainstream again. So, topics sustainability or EfS might not be that publishable” (Respondent 2)

The resistance to addressing sustainability comes from both academics and senior management. Adversary individuals in the University perceive sustainability as insignificant and commonly have a lack of knowledge regarding sustainability.

Overall, the respondents valued University's heritage and motioned John Ruskin's work related to education and sustainability paradigms. Additionally, interviewees highlighted the GSI working towards sustainability and the policies and procedures that are embedded at the University level. However, misconception of sustainability among senior management and academics, time and financial constraints and lack of commitments and competence are the main barriers to address sustainability in the University and engage in research.

The findings from the research show that sustainability champion's personal values and beliefs towards sustainability drives sustainability agenda forward and indicates the significant role in shaping organisational culture. This brings light on the universities leadership and strategic management decisions and highlights the importance to allocate time and resources for further professional development to encourage members of staff to continue addressing EfS in their research and teaching practice.

These findings reinforce the significance of various internal and external University factors that have been previously discussed in the literature. For instance, sustainability perceived irrelevance by academic staff; limited staff awareness and capability, limited institutional drive and commitment, limited commitment from external stakeholders (employers, professional bodies, etc.) and sustainability agenda seen as too demanding (Dawe, Jucker and Martin, 2005; Sterling and Scott, 2008). Therefore, building cultural awareness, collaboration and sharing good practice seems required for implementation of sustainability initiatives and addressing it in the curriculum.

### **7.3 Higher Education context and ARU**

A range of external factors that influenced ARU actions towards sustainability emerged during the interviews. The importance of external bodies, benchmarking, national policies were mentioned by interviewees as drivers for change in policies, procedures towards sustainability in universities. For instance, the higher education sector is influenced by the quality assurance and funding bodies such as National Union of Students (NUS), Research Excellence Framework (REF), The Quality Assurance Agency for Higher Education (QAA) and Higher Education Funding Council for England

(HEFCE). Respondent 1 considered the QAA and HEFCE initiatives are focussing on sustainability and HEI.

“We know that QAA are about to publish a guide to Universities embedding sustainability in their curriculum. QAA is on to it, and the reason they’re on to it is that HEFCE who funds universities thinks that sustainability is really important. So what we’ve been doing as an EfS community of practice is we’ve been lobbying really hard QAA and HEFCE. Because they will drive the levers back onto the university to make sure that universities keep this in their Corporate Plan.” (Respondent 1)

Students’ voice and university’s performance in REF rankings were other themes that emerged from the interviews. Rankings drive higher education institutions. High performance in various league tables (such as NSS and REF) in the higher education sector ensures financial support, increase student numbers. Respondent 4 stressed the importance of National Student Survey (NSS) results for the university’s reputation although it does not reflect sustainability explicitly.

“Well, the big one for us is the National Student Survey. Everything is NSS, in a sense, because that informs the league tables and everything else. For us, for 2018, we’re looking at an 85% student satisfaction across all the different levels. Well, [sustainability] it’s not explicit, but I think the NSS is changing. I think, increasingly, it will be probably more explicit. At the moment, it is not. Unfortunately, the NSS is what drives all of the reputational sides from Teaching and Learning for universities” (Respondent 4)

The University’s research agenda have an impact in the REF rankings and overall university’s reputation. For instance, as Respondent 4 identified:

“It would be great if 50% of our work was world-leading. Given that we haven’t actually been involved before. That research, I would hope, would have, and there is, a lot of social enterprise awareness of business development research that is going on and being recognised in this REF, 2014. As well as in the next round, which will be 2020. We’re looking at probably 40% to 50% of our staff being eligible to be entered into that Research Excellence Framework. So, how the government basically judges our research. That’s going to be crucial for our own reputation. The three key goals in our Strategic Plan for this year, going forward, are a good NSS, increased student recruitment and an excellent REF. It is research, recruitment and NSS. I think they are the three things that will build our reputation” (Respondent 4)

Respondent 1 indicated the link between sustainability and employability. Employability is important themes when comes to evaluating institutions performance and comparing with other higher education institutions. For instance, employability featured in the Universities and Colleges Admissions Service (UCAS) rankings influence students’ decision before selecting University, and it has impacted the NSS outcomes. The links between engagement with sustainability and employability are presented in the annual surveys led by HEA, and NUS were student and employers want to see future graduates

with knowledge of sustainability (Drayson, 2015a; 2015b; Drayson, *et al.*, 2013). Therefore developing employability skills and educations for sustainability are the core element of the GoGreen Pilot'12 that would be discussed in the following chapters. Based on cases from other respondents mentioned university's efforts trying to address sustainability in graduate attributes.

"So, employability is key, it's one of the key drivers for the operations of the university and there are very strong links, because sustainability skills are essentially core graduate skills but not all core graduate skills are sustainability skills. ...Graduate attributes are the vehicle that we are staring to use to pull together employability and sustainability skills and that is a vehicle that other universities, particularly other Russell Group universities have been using for some time. So again, we are playing catch up there." (Respondent 1)

Interviewees praised ARU's initiative to address sustainability in its Corporate Plan. However, it is not enough, and interviews emphasised the necessity to rethink the purpose of the higher education system (including ARU) and consider a long-term, holistic change and the new Insights towards curriculum development

"Over the years I have become more and more interested in how people actually use information... How they use knowledge, what skills they need to be able to apply that knowledge. So, EfS actually brings everything together. So this is about actually what somebody learns and how they use that. I think learning towards a goal and the goal is a prosperous future, a prosperous and sustainable future." (Respondent 1)

Next to highlighting sustainability in learning and teaching practices, interviewees share the importance of university's sustainable initiatives linked with strategy, buildings, estates management and procurement. For instance, Respondent 4 said:

"...I know at corporate meetings, our Vice-Chancellor, in the corporate strategy, is obviously very keen on practising what we preach in terms of business, buildings, recycling and everything else and using local produce and Fairtrade produce." (Respondent 4)

Similar ideas have been emphasised in the literature. Universities have been transforming separate areas of their activities (for instance green the campus), and the holistic transformation of higher education institutions towards EfS has failed (Tilbury, 2011).

Overall, based on the findings higher education institutions external factors can influence to what extent sustainability will be addressed in research and teaching. Position in various ranking tables, research output, various accountability factors justify the motives of senior management decisions. Rankings are an 'accelerator of the reputation race' (Hazelkorn, 2015, p. 28) in order to attract the best talents and increase research outputs in specific areas. Higher education ranking system became a significant tool for strategic

positioning and branding and if sustainability is not addressed that could be a challenge to embed it in the universities. Competition in the league tables put pressure on the business schools as the demand for business degree increases (ABS, 2009; 2013; 2014).

Employability factor influence student decision in selecting higher education institution and is linked with students experience in the university. Developing future graduates' employability and sustainability skills could be an opportunity to promote EfS and improve universities reputation (Drayson, 2015a; 2015b).

The findings indicate the need for stronger support by official bodies, government funding council to address sustainability in higher education institutions, which has been discussed among scholars. Sustainability could be seen as a driving force for quality enhancement and institutional culture, structure, procedure and policy change (Sterling, 2012; 2013). The journey towards change for sustainability could be described as complex, uncertain and political. Yet sustainability literacy should be integrated into the content and delivery of all courses in higher education institutions providing knowledge and skills required by students and employers (Drayson, 2015a; 2015b; HEPS, 2004a). This transformation is necessary to tackle the challenges of our century (Tilbury, 2013).

## **7.4 Understanding and interpretation of sustainability/ EfS in higher education**

Participants agreed that sustainability plays a significant role not only in higher education institutions but also it is vital for business and governments at national and international levels. Although different justifications were highlighted by participants: environmental sustainability, economic sustainability, the importance of intergenerational consideration, also sustainability was linked to care, beauty, social justice and efficient use of resources, among others. The understanding and knowledge of sustainability and interpretation of this concept was one of the main challenges that emerged throughout the research process.

“I think there is that sense that sustainability as a concept, and in terms of the attention that's given to it, is seen as a kind of brain-washing. And I agree, I think often it is used by organisations, not just universities, but by organisations at large, in a way that is very much about, again, brainwashing. So, it is about propaganda, it's about being seen to tick some boxes, it's about a PR exercise, really, it's jumping on the bandwagon” (Respondent 3)

Participants highlighted different discussions regarding the notion of sustainability and sustainable development. It has been suggested that different stakeholders interpret the notion of sustainability and sustainable development in many ways and that there is a common misleading interpretation of sustainability and sustainable development. For instance, Respondent 1 from ARU shared similar views with Respondent 3 from the University of Bristol, and they consider the term of sustainability as endpoint while sustainable development associated with the growth paradigm. Growth not always goes in line with sustainability agenda. For instance, Respondent 1 prefers to use the term sustainability rather than sustainable development, and she stated:

“... in the Western world, in the UK, do we really want more development because development implies growth. if you are thinking about sustainability there are big, big discussions to be had about the role of growth in sustainability. So if you just talk about sustainability and not sustainable development then you’re focused on an endpoint, you’re focused on an outcome. If you’re talking about sustainable development, very often you are talking about the process and your implying that you can carry on with the growth paradigm. But with sustainability you take that out of the equation and actually it might not be the way to achieve sustainability. it might be sustainable reduction might be the way to achieve it. You don’t imply growth and all the things that are associated with that growth.” (Respondent 1)

Respondent 3 shares her views on development:

“...So for me, the notion that it’s so closely tied to development is problematic, as I think it is for many people, we live in economically concentrated times, where the priority is, by and large, on economic factors, or economic areas of life, and the other dimensions, like sustainability, ecological sustainability, social sustainability, social justice, they kind of fade from view.” (Respondent 3)

One of the challenges in the higher education institutions recognised by interviewees is lack of knowledge of sustainability or competence to teach sustainability and it is linked with the broader discussion in the literature (see Sterling, 2012). An improvement in the greening of the campus was mentioned. However, in terms of EfS, some respondents felt there was not enough being done. Similar views are highlighted in the literature. The environmental management and greening of campus operations and estates has been much more progress than curriculum development (Corcoran and Wals, 2004).

Research findings echo similar debates of other researchers on the interpretation of two notions sustainability and sustainable development. Sustainable development concept is widely presented in governmental, organisational (including higher education institutions) policies linked with sustainability (for instance see UNESCO, 2005; 2010; 2011). Nevertheless, scholars such as Lélé (1991) provided a semantic explanation of sustainability and sustainable development highlighted in the literature. Lélé (1991) including other scholars Jacobs (1999) identified sustainable development concept being vague and it will likely to foster misconceptions. Overall, interviewees reflect their views

on higher education institutions and the link between education and notion of sustainability. University plays a significant role in the society, providing education that enables students to deal with the future challenges. Therefore, university should provide necessary training, professional development opportunities for the members of staff linked with sustainability. The misconception of sustainability one of the main challenges confronted by academics in the higher education institutions and have been discussed in the literature (Filho, 2000).

## **7.5 Business and Management Education and EfS**

Curriculum development matters raised during the discussions. For instance, in ARU with the new Corporate Plan and new academic regulations involves sustainability and states that it should be a part of every course. The progress is constantly monitored through the Quality Assurance system at validation, an annual review and revalidation of courses. However, as highlighted earlier, changing the University policies is not enough to implement EfS. Respondent 1 stressed that fundamental change is needed in organisational culture and embedding EfS in the formal curriculum. As far as business schools are concerned Respondent 1 compares it with a battlefield:

“...University, if you think about it, it's changing your whole values and attitudes and culture. So, it's not just about changing the curriculum because you can teach something and not believe in it and that is what's happening, or not walking the walk if you like, and that's what's happening in a number of business schools...” (Respondent 1)

Some respondents acknowledged the importance of business schools and shared critical view towards current business and management curriculum. For instance, Respondent 2 stated:

“...I think that the business schools are still to mainstream in the sense of educating kind of useful machines.... Universities are too big machines, too big institutions that are like big elephants trying to advance. Very slow, so, yes there are changes they are very slow, they are very isolated, they are not systematic, they are not corporate, really.” (Respondent 2)

Business schools are constantly changing and evolving. The literature review has identified a number of researchers have identified significant challenges linked with operations, research, management, and paradigms shifts linked with business and management education system (Beusch, 2014; Ivory, *et al.*, 2006). During the interviews participants called for specific need for fundamental change in the business and management curriculum and challenges that could be associated with it:



“...the business school that have taught people based on what they've been taught that this is the way forward. And so that, therefore we end up in the pickle we are. So, if you think about it, if you're going to change, try and change direction so all those people who are experts in their field in business have got to acknowledge that they were wrong. That's not going to happen. You know, they are going to fight tooth and nail to say what I have spent the last twenty years of my life doing it right? So, how do you get them to change because they will if you push them they become more and more entrenched.” (Respondent 1)

Academics shared their views how the Business School already introducing sustainability with the current teaching modules. In LAIBS, subject such as tourism management already including sustainability in their syllabus. However, respondents highlighted there is a lack of engagement from colleagues to incorporate sustainability in specific subject areas in business and management programmes. Students are taught sustainability through modules that are mainly focus on sustainability such as environmental management and business ethics.

“... I was thinking a more traditional business school that only emphasis was in finance, in marketing, in operation management. And so, there was this area in which was environmental management, ethics and that module on ethics became sustainable management futures. So, although that was not so much clarity of what to do with this topic. There was a clarity that those topics needed to be in the curriculum” (Respondent 2)

Despite these participants points out a positive cultural change towards addressing sustainability in the curriculum in the Business School. For instance, LAIBS making modules linked with sustainability compulsory and there are evidence of other academics engaging in teaching sustainability in specific subject areas as Respondent 2 emphasised:

“...So, on one hand, the fact that the courses are becoming compulsory, and therefore emphasising the importance that learning about sustainability have for the future manager. The second aspect is the fact that more and more people in the school are more aware on sustainability. When I started, sustainability was the topic that nobody knows what I was talking about. Now, if you talk any of the colleagues here and all of them will know about sustainability and they included somehow in their classes.” (Respondent 2)

Curriculum factors emphasises on ways of delivering sustainability in the Business School. Throughout the discussions, it was acknowledged that overall business school's curriculum does not emphasise a practical connection with the natural environment.

“...to take students out of the classroom, so I took them to the botanic garden. Because we are going to learn about environmental management. We can't not learn about it in the close environment, really. So, what I did was from the moment when I was giving the module was very much descriptive. Then I started moving it more and more toured, more practical.” (Respondent 2)

Participants highlighted the importance of practice-based learning outside the University boundaries that benefits student engagement and linked with EfS. Other scholars similarly emphasised prominence of outdoor activities, learning by doing, multiple pedagogy approaches teaching students about sustainability in the business and management education (Baden, 2013; Springett, 2010)

... I think one of the challenges with the environment is people don't connect with nature, do they? So, for example I'm taking my students up to have a lecture underneath a wind turbine (Respondent 1)

Participants commented on how they are already addressing sustainability in their teaching practice. Academics noted on innovative learning strategies that aim to challenge students' worldviews such as adopting action research method as a pedagogic choice; incorporating problem-based learning; art-based methodologies; real practice, hands-on and student-centered experience. For instance, Respondent 2 said:

"...I'm very interested in art-based methodologies. Because, I am also work as an artist. So, the first thing that I introduced, that was different, that students needed to represent sustainability or what they've thought was sustainability in a graphic or an artistic way. So, one semester they brought posters, they have created songs, so that was very good." (Respondent 2)

The non-formal curriculum was discussed as essential aspects of EfS agenda. Participants specified insights into preferred approaches to teaching and learning for sustainability linking with extracurricular activities. Various university's societies, volunteering, placements, internships, working with the community can enhance students' employability skills, provides practical knowledge, lifelong learning and sustainability literacy. Extracurricular activities has been identified by scholars linked with EfS literature and students engagement and holistic learning in higher education institutions (also see Cameron and Harrison, 2012; Knapper, 2006; Matthias, *et al.*, 2007; Winter and Cotton, 2012).

From academic perspective extracurricular activities can assist formal curriculum through the assessments, provide teaching materials such as case studies and examples. However, academics notified that current business schools' formal curriculum separated from extracurricular activities. Responded 2 provided example how University's society Globally Responsible Leadership Initiative (GRLI) could benefit business and management student and academics.

"...I feel that for example with the programme of internships at the moment that they are starting now. To make it special and to make it something that people can do is beginning to get more acceptance and students participating. So that type of things to see or to create... For example, GRLI is a great opportunity, people travel people have access to networks, people have conversations with

CEO's etc. So how to make those opportunities more visible for people. At the moment, I also feel because of curriculum is so separated from the informal activities." (Responded 2)

ARU has different policies established that aims to address sustainability in the curriculum. Though, respondents encountered some challenges when comes to embedding EfS in teaching and learning practice. Organisational culture and staff awareness were dominant themes. Some specific programmes such as tourism already included EfS into their syllabus, which indicated the need to tailor every module based on the specific subject area (Sterling, 2003).

However, respondents identified of growing number of business school academics that incorporating sustainability into their syllabus (for instance tourism). In 2014, some modules such as Responsible Business (level 5) directly linked with business ethics or environmental management became compulsory for the business and management students in the business school. This showcase business school commitment towards sustainability.

Participants identified innovative pedagogical approaches that are already implemented in the curriculum. Action research, art-based methodologies, problem-based and student-centred learning were highlighted. Action research method as one of the principal pedagogic choices to embed EfS in business and management studies curriculum was underlined in the literature review (Springett, 2010). However, art-based methodologies in the business and management studies limited evidence was found in the literature, yet it can be seen as a transformative instrument towards teaching and learning (Bathurst and Edwards, 2009; Godwyn, 2017; Ward and Shortt, 2013).

Research findings show that only concentrating on EfS in the formal curriculum in the business school is not sufficient. Incorporating extracurricular activities into the formal curriculum provide new learning and teaching opportunities for academics and students. There is a need to embrace and investigate overall students experience in the university through the whole system thinking and should take a lifelong learning mindset (Sterling, 2001; 2003). Non-formal curriculum, extra-curricular activities that aid to engage students and include staff and community at the same time contribute to the organisational learning (Sterling, 2003).

Overall the findings from this Meso level indicative the importance of cultural environment in the University and the business school. Addressing sustainability in teaching and learning is a challenge despite policies and procedures in the University. Individual staff members believe, values and awareness of EfS, place a significant part of what extend sustainability can be implemented in their teaching and research. Having

a passionate academics supporting and practising sustainability, creating and sharing subject-specific teaching and learning resources on EfS, staff appraisals and professional development schemes are opportunities to involve in EfS. To address sustainability in teaching, learning and research require both institutional and individual drive and commitment. This is evident in the literature review linked with business and management education (Beusch, 2014). One of the appropriate strategies to promote EfS agenda in the business school is adding sustainability as a part of staff appraisal scheme and allocating time and resources to share good teaching and research practices and explore extracurricular activities. The research findings identified the importance of EfS in the business school and contribute to broader discussions in EfS (Figueiró and Raufflet, 2015). After underlining findings from Macro and Meso levels, the following chapter will look at the final stage of the research, Micro level. The findings are linked with the GoGreen Pilot'12, sustainability initiative in the LAIBS.

## Chapter 8: Micro level findings – GoGreen Pilot'12

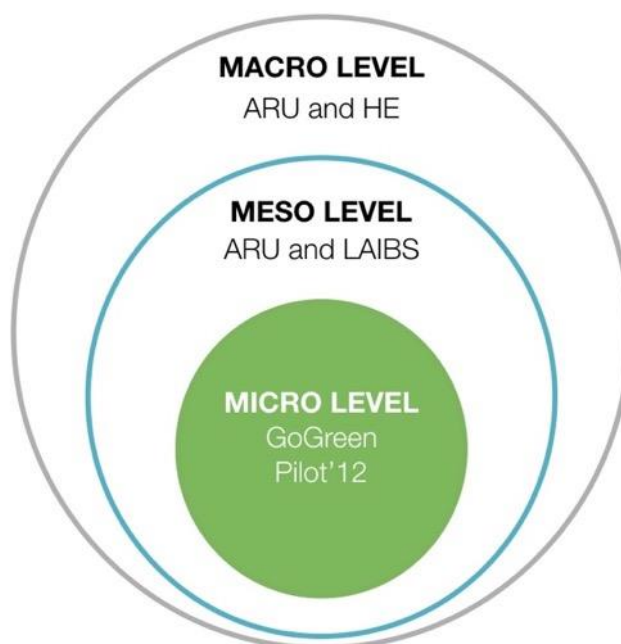


Figure 8.1 Research findings in Micro level

### 8.1 Introduction

This chapter outlines the findings from the Micro level of the research (Figure 8.1). This part of the research was associated with the actual implementation of GoGreen Pilot'12 project during 2012-2015. Additionally, the longitudinal research brought another dimension to the research aiming to understand the impact of sustainability initiatives on students' further development after their graduation.

Findings from the GoGreen Pilot'12 will be discussed based on the four research stages (see 8.2 figure) aiming to analyse personal and professional development throughout the process of the 12 students' and two supporting academics. This chapter also includes findings from the introductory videos, drawings, conferences, meetings, self-reflecting diaries, group discussions and individual interviews, also three learning histories. The learning history allowed participants to comment on the findings from previous learning histories, to provide their views and insights hence encouraging reflective practice. This process gave a better understanding of the project itself towards EfS, and it showcased participants development regarding sustainability practices in education.

Also, this chapter includes outcomes from the longitudinal aspect of the research where participants have been contacted 1.5 years after GoGreen Pilot'12 (Stage IV). The learning history and longitudinal study enabled the researcher to assess changes in knowledge, values and behaviours of the same subjects over a period of time; it also helped to identify cause-and-effect relationships of GoGreen Pilot'12 and, finally, it enhanced the quality of the results concerning the research outcomes.

The researcher focused on documenting and analysing GoGreen Pilot'12 participants personal and professional development, challenges, difficulties and opportunities throughout the project and after it. Overall, the Micro level of the research contains four stages: Stage I: Pre-GoGreen; Stage II: During GoGreen; Stage III: After GoGreen; Stage IV: After GoGreen (1.5 years later).

Figure 8.2 indicate the timeline of the various stages of the research that enabled the researcher to draw the full picture of the project and its main findings. Appendix 2 highlights the main stages of Micro level including research purposes and brief descriptions.



**Figure 8.2 Main stages of the Micro level**

The Stage I (Pre-GoGreen) includes the analysis of participants videos submitted to the project and brief information provided by the students. This enables to identify students' skills, knowledge and the motives to be part of the project.

The Stage II (During GoGreen) sought to understand students' engagement throughout the project and reflect major challenges and opportunities they faced. This stage includes data from the following events: two events of Learning History (LH1 and LH2);

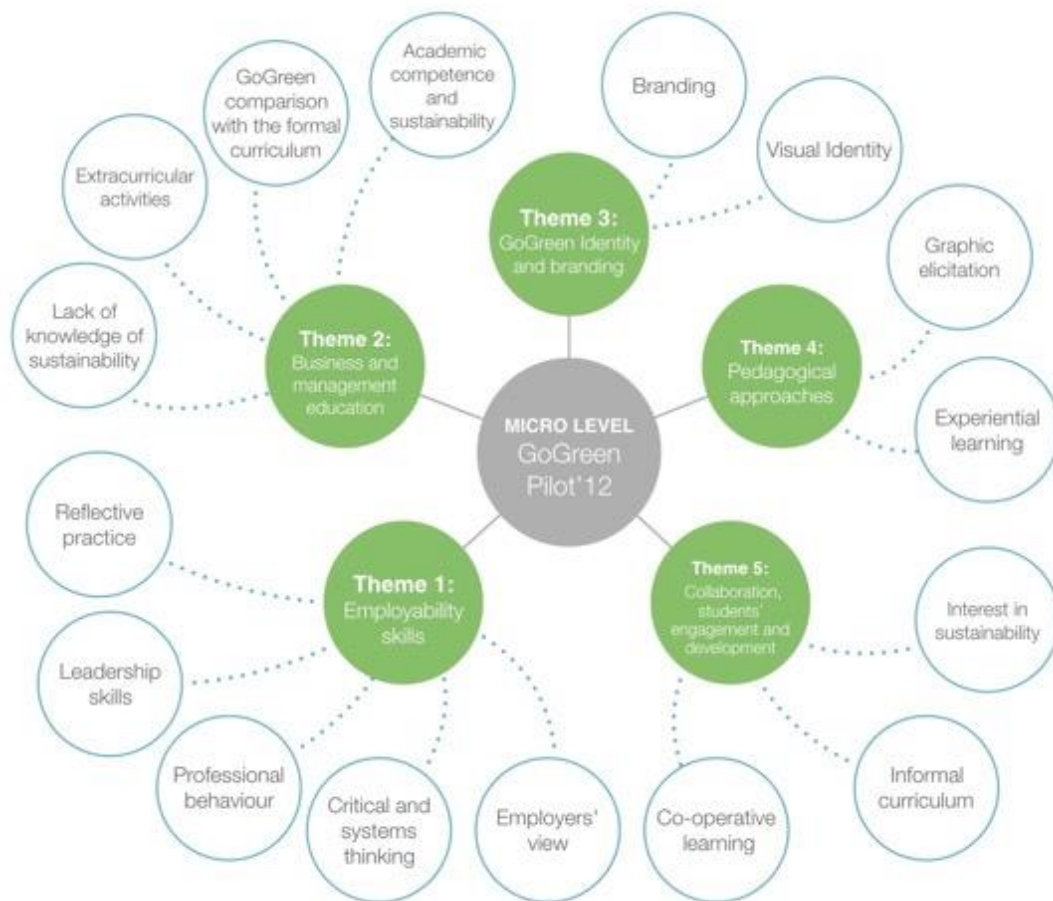
video-recording from the Global Sustainability Institute conference; and students' 12 reflective journals during the GoGreen Project'12. The purpose of the first learning history (LH1) focused on the first impressions of the students about the project and the first phase of implementation. The second learning history (LH2) aimed to identify and reflect upon the process by describing challenges, successes and opportunities from the students experience towards the end of the project. Even though the primary emphasis of this research is on students, the supporting academic team challenges and opportunities also emerged.

The Stage III Learning History Three (LH3) aimed at reflecting about the entire GoGreen Pilot'12 project process, including the management experience and the main challenges and opportunities. An additional event, after the project, GoGreen Reunion was organised at the end of the project. This reunion event focused on students' reflection about their personal and professional development just after the end of the project, as well as their views towards their views concerning the usefulness of their education and degrees at LAIBS.

Finally, Stage IV: After the Project, concerns a longitudinal part of the research where students have been contacted after one year and 1/2 later. Twelve individual interviews were held. It draws upon the results from Stage III, where the students were asked to reflect on their experience during the project and identify their further personal and professional development. In this Stage IV, students were encouraged to reflect on the overall studying and learning experience in the University and LAIBS.

Based on data analysis the five central themes were identified. These are: employability skills (Theme1); business and management education (Theme 2), GoGreen identity and branding (Theme 3), pedagogical approaches (Theme 4) and collaboration, students' engagement and development (Theme 5). Figure 8.3 illustrates the central five themes, and the sixteen categories emerged.

Overall this chapter summarises the findings from the participants' journey which includes twelve students based on the individual interviews, focus groups, self-reflecting diaries, blog posts, video recordings and drawings. At the end of each section, summary is highlighted linking the primary outcomes of the research with some broad discussions in the literature.



**Figure 8.3 Themes and categories identified for Micro level**

## 8.2 Employability skills

Employability skills were the leading theme in the Stage I. This theme refers to the students' employability skills that they have, and that would be beneficial to the project. Students emphasised their communication, timekeeping, teamwork abilities or willingness to improve them. Also, students saw the GoGreen project as a vehicle to improve their employability skills and to develop environmental practices in the local community. According to participants, hands-on experience and helping to local community were the key motivations for applying to GoGreen. As the next quotation shows employability and hands-on experience are important drivers for their participation.

“...working with small businesses, who might not have those internal resources is creating more awareness and providing more knowledge. This shows that any type of business can make big changes. I think when looking at the bigger picture, the GoGreen has endless positive possibilities that I would love to be involved with them and really help local businesses.” (S4-SI)



Based on participants individual video recordings students commonly agreed that participating in this project could benefit to their future development and can enhance their employability opportunities. Participants shared their plans linking with sustainability. For instance, some participants showed they plan to use GoGreen experience and implement similar ideas in other HE institution based in their home country (S6, S9), others were planning to study undergraduate degree linked with sustainability management and science (S11, S1). As business and management students, participants believed that the skills and knowledge gained in the project could benefit them in the green job market (S12) or set up their own responsible business (S4). For example, one student (S8) shares the importance of business and management education and linking her future with non-profit sector.

“... My aim is to work for non-profit organisations in the future because that it is important to combine business knowledge with social care.” (S8-SI)

In the Stage II the employability theme was more related to the actual experience during the GoGreen Pilot'12 project. Throughout learning histories (LH1 and LH2) and reflective practices, students reflecting upon their experience of working with third sector organisations. Twelve students were assigned to work in a particular organisation where they became the primary contact between university and the organisation. The students were supported by the academic team, but they had to do most of the work. Students highlighted the importance of professional behaviour and skills such as time management, problem-solving ability, organisational skills and the support form academics team played a significant role. For instance, one of participants said:

“I was glad that [member of academic team] accompanied me because I didn't feel confident at all. I felt like I was unprepared and was not sure what is expected on both sides. It was a great experience, I have learnt that a professional meeting can be fun and friendly. I have to make sure I prepare a structure for our next meeting. I had lots of notes from the meeting, so it was easy when it came writing them up. I will also make sure I go through the workbook several times before our next meeting and write some notes. Overall it was a very positive experience and I felt extremely relieved afterwards. I guess I was expecting something worse/scarier.” (S12-SII)

Students identified themselves as researchers and facilitators. However, according to participants some organisations thought that students had to do the tasks for them rather than just give an advice. To resolve this issue students had to clarify their organisations about the purpose of the project and the Green Impact. Therefore, communication was the key to disseminate the right message to the organisations. While the project

progressed, students reported about their own development as professionals, as this quote indicates:.

“Arriving nice and early, I felt confident, clear of my role, motivated and actually excited to get this underway! I felt so relaxed and comfortable and actually in control of the meeting. We had a drink and firstly watched the video on the Green Impact site, as [representative from the organisation] had not watched it and it was also a good starting point for beginning the workbook. We also spoke about the other organisations as a whole; [representative from organisation] was interested to know how everyone was getting on and who was on board etc” (S4-SII)

With the increased confidence students developed their abilities to adapt to their role, showing their independence in dealing with unknown contexts, as well as decision making. Participants were encouraged to reflect on professional practice and experience during the project by keeping a reflective journal and update it regularly. The journal helped them to express their feelings, identify obstacles, struggles and register their own learning needs. The quote below identifies the value of reflective practice and how it benefited student's professional and personal development.


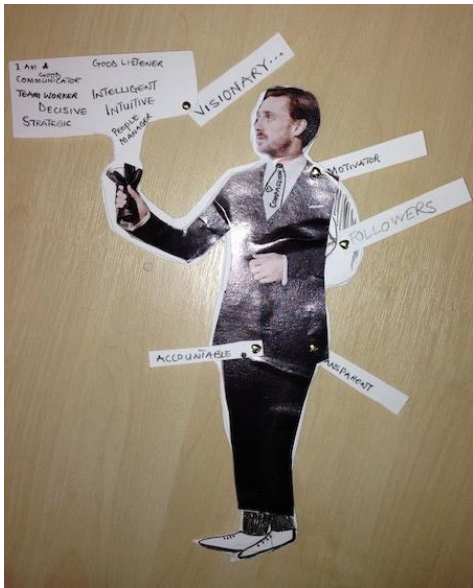
“I was then trying to emphasise in a nice and kind manner that she and [member of organisation] are the internal leaders of the project. But honestly, I did not know (as a researcher and facilitator in all this) how much further I could go in telling them what I think they should be doing. Being there today and seeing so little progress for most of the teams, I felt a real dilemma on how much my personal opinion and ideas would be welcomed 😊 Writing this helped me calm down a little, but still it is sad to see that obviously even [member of organisation] and [member of organisation] are so eaten up by more pressing projects or their daily work that they cannot find the time to go upstairs and talk to the lab managers in person every once in a while.” (S11- SI).

Additionally, students mentioned different leadership styles that they were adopting throughout the process. Some students brought attention to the workshops that they did during the project. In one of the students discussed and made paper dolls reflecting their leadership styles and sustainability. In the quote below participant reflects the Paper dolls making exercise and approach to leadership:

“For me, this project changes my idea about what leader is. While we were doing little dolls (Paper dolls) I made this like football coach. I think that leader make a right decision, make our right strategy to follow group, but now I think maybe it's not only coach maybe also should be one of players. You must play with all members, this kind of change on my mind. I think it is not only give, make decision sometimes you must to do research by yourself. I think it is also targeted for myself, I think maybe I should do some more action in the future” (S10-SII)

Students recognised the importance of creative workshops (such as drawings at the beginning of the project and paper dolls workshops linked with leadership styles) in order to enhance their self-reflection. See examples in table 8.1 and Appendix 8 and 10.

**Table 8.1 Creative workshops: Roadmap and paper dolls**

	
Roadmap	Paper doll

For instance, one participant said:

“I know that, for example, when we were sitting down during our first meeting, actually I was thinking what I expect from this project, where do I see myself in the end and so on. This was for me really important, because before that actually I never give that any thought. I think that there was really good start to think what I am donging here, and what actually to expect out of it. I think, in a way, all these creative arts they bring you to start think about things that maybe you wouldn't think about before. Because it's just wouldn't come to your mind” (S9-SIII)

At the end of Stage II students discussed the service-based learning and how it contributed towards their employability skills. GoGreen Pilot'12 provided opportunity to the students to explore the third sector organizations and to identify major constraints and challenges they are facing when addressing sustainability in their activities. Participants identified areas such as financial constraints, lack of commitment and motivation, lack of human capital, as the main difficulties when working with third sector organisations. Throughout the process students had to critically assess organisation's capabilities and looking through system thinking lens they become change makers at their organisations. During the discussions, the phrase 'accepting leadership' emerged as a topic among all participants. This means that they had to “become” leaders, by assuming responsibility of their role as change makers in the organisations. The quote below illustrates this evolution:

"I can relate on that on accepting leadership because that was from me one of the first time when you are actually giving something. You know you have to do it, but at the same time in the company you are the leader, and they have questions they ask you. And they ask you if they are doing it right or wrong, so we have the whole team to back up, but you're still the leader, and you still have to say. But first, I feel like, okay I am a student, and she's an adult, I have to respect her, and I felt like under her because of being a student. And then she asked me those questions, that little by little I accepted that. But maybe, yeah, I had some knowledge that she did not, and I will learn how to accept that leadership". (S6-SII)

In the Stage III students shared their professional development after the GoGreen Pilot'12. According to participants, GoGreen has influenced their further development and transferable skills such as leadership, confidence, timekeeping, communication and professional behaviour were the most common themes linked with employability. In the following quote student defines project as a lifelong learning experience:

"Being part of the pilot in my final year was a great opportunity to practice for life. I am very grateful for this experience as it helped me in the transition to working life and made me more confident during my job search process" (S10-SIII)

Additionally, students emphasised that the project influenced their career and further education decisions. Participant's experience during the project draw attention to their employer and some students have successfully secured their work position. For instance, the quote below showcase the importance of sustainability from employer's perspective.

"Yes, it was very helpful. Even when I got the job, they were not much interested in my economics degree, but more into the project... 'oh she has done the project that is related to sustainability'. They were looking after that, so they wanted people that are interested in sustainability, and economics was an additional skill, but it was the strongest." (S1-SIII)

Similar themes to Stage III were discovered during the individual interviews in Stage IV (After GoGreen (1.5 years later)). Some of the participants stayed in the UK and carry on working while others return to their home countries and explored job or study opportunities. As mentioned in Stage III, participants brought attention to the GoGreen Pilot'12 as it was one of features that assisted them to secure job, placement or got accepted in the University to do their master's degree. Respondents provided examples from various private sector organisations such as banks, finance and accounting, media, automobile industry, others shared their vision to become "green entrepreneur" and to create their own business. For instance, responded said:

"I was working in the finance and in Berlin it was marketing. So, in both areas they really were impressed, it was not just something when you think okay, you have to work for environmental company or you have to work for governmental institution. Those are both automotive industry, private sector and also again in

my interviews they were so impressed. When I was in Japan, my supervisor said he was really impressed by my volunteering work especially GoGreen therefore he found my profile so interesting. I was covering so many aspects while I was studying international business, I study in the UK and all those things were kind of a puzzle for him and my profile made more interesting for him. It really helped, and I did get accepted to the Japan immediately I just had one interview for the Japan, I did get the job. Not just in Japan I had also job interview with ProSieben media again one of the biggest media companies in Germany, Austria and Switzerland. The got couple of job interviews offers yeah and it really helped me.” (S5-SIV)

Overall, enhancing employability skills linked with sustainability and environmental management were important for the students' future development and directly link with the personal motivation of students to participate in GoGreen Pilot'12 project. Findings underlines in Stage I student's eagerness to assist the community and gain practical experience. This links with scholar discussions regarding the importance of experiential learning, community engagement and reflective practice that can bring benefits to students' development (Dewey, 1933; Phillips, Craig and Phillips, 2013; Senge, 1990). Data analysis form Stages II, III and IV suggests that GoGreen Pilot'12 developed skills highlighted by the World Economic Forum regarding 21<sup>st</sup> century skills such as student's competencies (critical thinking, creativity, collaboration) and character qualities (curiosity, initiative, persistence, resilience, adaptability, leadership) highlighted by the Higher Education Academy (HEA, 2016a).

Similarly, research findings supports findings on EfS promoting skills, attitudes and attributes for sustainable future (QAA, 2014b; Stibbe, 2014; Tilbury and Wortman, 2008; UNESCO, 2011) and related with business and management education (Gregory and Miller, 2014; Porter and Córdoba, 2009; Springett, 2010). Research finding indicates students journey that enabled them to initiate, facilitate and deliver the change in the third sector organisations. Leadership skills play a significant part in teaching students sustainability in business and management education (Wankel and Stoner, 2009). The real-world environment provided an opportunity to students to focus on critical and reflective thinking and address local needs. Furthermore, as previous studies confirmed (Sax, Astin and Avalos, 1999) while students developing their academic skills had a long-term impact on their personal and professional development. Overall, students actively participating in social actions has a potential to promote critical skills, employability skills and act in the ways that are more sustainable and become a change agents at their homes, and organisations (Allison, 2015; Kearins and Springett, 2003).

### 8.3 Business and management education

The theme of Business and management education refers to the students' views towards their course in the University and overall higher education experience. It also refers to individual motivations, a personal interest that participants recognised and played a significant role in their commitment to the GoGreen project highlighted in Stage I. Some students found this project useful because it helped them to write their final year project. In fact, this was a requisite of the project and the undergraduate dissertations were linked with social enterprise, sustainability and environmental management topics such as non-profit organisation and social media (S8), eco-audit in the international business context (S10), change management and environmental practices (S9) or, as the following quote specifies, students eager to enhance their knowledge in the specific subject area:

"I have always been concerned about environmental issues, and this will be a great opportunity for me to have second business experience in that field and it will help me for my research project on sustainable marketing strategies."(S6-SI)

Students stressed the importance of sustainability knowledge for the business school graduates. This coincides with the NUS surveys linked with students' skills and attitudes towards sustainability (Drayson, 2015b). As mentioned in the previous section employers also are interested in graduates who show their passion towards sustainability and environmental issues:

"I think, sustainability becoming such a big topic and it's going to be, in the future, even more important into every single part of business. So, whatever I or you end up it will probably be good if we had this background, we can incorporate that whatever we do. Even if is not working for an organisation who is protecting the environment already, so I think that is something... And also, for example, when I was applying for the internship I put that on my CV, and I was asked by the interviewer about the project, so I was telling her, and then the very interesting thing was she actually told me that just they had introduced the green team in the organisation as well. Actually, I will be working in the marketing and communication department, but I will try to explore what they are actually doing, and I am really anxious to see what they do." (S5-SIII)

Considering formal curriculum participants highlighted that there was a lack of teaching and learning linked with sustainability and environmental issues embedded in undergraduate and postgraduate degree syllabus in the business school. In the following quotation student (S1) emphasised the importance of knowledge of sustainability and human relationship with nature especially in the business settings.

"I have some knowledge how important it is for business to create more profit. However, I think, sometimes business forgets about, how important environment means to us, means to all the planet. Moreover, I am really interested into this topic. I'm doing now my final year at the University. And I consider doing my dissertation about corporate social responsibility." (S1-SI)

Additionally, students emphasised the lack of practical experience in their formal curriculum. Therefore, students participating in the GoGreen Pilot'12 found it different in comparison with mainstream business and management education.

“I think like my degree was very theoretical. GoGreen gave me opportunity to actually practice. I experienced from my employees it was more important not what I know but what I can actually do. So, when I was talking about my degree my employer was, you know everyone can know about the economy. Something you read, and you know, but what have you actually done. When I had my Skype interview with the University College London they were also into what have you done, what is your experience in the area. What people you have been dealing with. All these things, I guess it does open opportunities.” (S1-SIII)

During the interviews, students shared their informal curriculum experiences linked with sustainability in the University. Participants developed their knowledge linked with environmental management and various sustainability issues through extracurricular activities. Some students were active members of societies such as Global Responsibility Leadership Initiative (GRLI) (S3) or Society of Sustainable Development (S5). Other students highlighted their experience gained from the Green Impact initiative and assisting University to improve environmental practices. In the following extract participant (S10) emphasised the importance of the Green Impact project and how this project aided for his future development.

“I used to work in Green Impact project for our university [ARU] and while worked as auditor for HR department. I think this experience gave me more professional experience and gave me more confidence.” (S10-SI)

Societies, sustainability initiatives play a prominent role when engaging students with an EfS. Extracurricular activities stretch the boundaries beyond formal curriculum and provide new ways of learning. Diverse types of initiatives and interdisciplinary, multidisciplinary approaches should be considered to address EfS in the business schools (Springett, 2010). The holistic student's development provides various learning opportunities for students and academics (UNESCO, 2005). The relationship between formal, and non-formal curriculum has been discussed in the literature review that contributes towards EfS and lifelong learning (Knapper, 2006; La Belle, 1982; Mocker and Spear, 1982).

However, a significant issue that students highlighted during the interviews were lack of knowledge of sustainability among academics. Participants referred to the formal and informal curriculum. The lack of academics' support for sustainability initiatives was considered a critical component for embedding sustainability in the business school. Academics who devoted their time and provided support during the GoGreen project played a meaningful role in student development. The quote below indicates a need of

academics who could be able to coach and provision student-led extra curriculum activities in the business school.

“I think is the matter also of educating academics. It can be top-bottom type of thing, but it can also be when academics are much more aware of sustainability. Initiative from students is great but also, we need support from other lecturers and the Dean, but the problem is with that after students tend to leave, they are here for a certain period of time and they are not doing that full-time. So, they need to find time to create or to do things. And finally, when they create something it's time for them to leave the University and some other people come. They can't do it alone, so the combination of many factors. I guess the biggest and the quickest factor would be if academics actually being more aware what they can do.” (S3-SIV)

Overall, the link between human and natural environment are important for the students. Therefore, participants mentioned the formal curriculum and stressed that there is not enough sustainability awareness and practices offered for business and management students in the University. The lack of academic staff's awareness of sustainability which leads to uncertainty regarding its pedagogy and it has been highlighted in the literature review (Dawe, Jucker and Martin, 2005; Sterling and Scott, 2008) and similar findings discovered in the Meso level of the research (see section 7.2). Findings linked with business and management education and EfS reinforce broader discussions highlighted by Higher Education Academy. For instance, the HEA national research projects linked with students attitudes towards sustainability concluded that students willing to know more about sustainability and able to sacrifice portion of their salary and work in an organisation with a positive social and environmental record (Drayson, 2015b; Drayson, *et al.*, 2013).

## **8.4 GoGreen identity and branding**

One of the key themes emerged in the data analysis was the Project branding and identity. The literature on marketing the sustainability credentials of a university or any sustainability initiatives is thin (Selby, Jones and Kagawa, 2009). With increasing competition in national and international markets and changing socio-economic environment universities are using marketing theories and concepts, which have been effective in the private sector (Hemsley-Brown and Oplatka, 2006). However, scholars describe current Universities' sustainability marketing campaigns as undeveloped and incoherent (Selby, Jones and Kagawa, 2009).

Based on the previous experience running similar projects in LAIBS, the project team identified the importance of having a visual identity. The primary purpose of creating an



identity was to maintain a consistent visual communication look and feel across many channels and aided in building a profile and acknowledgement of the sustainability initiative across the University. Therefore, ensuring effective communication and engagement with various stakeholders, the project team created and implemented marketing strategy since the beginning of the project.




The name of GoGreen was initially adopted when project team received the Vice Chancellor's Inspire Award in 2011. Word 'Pilot' was added to represent the novelty of the project and number 12 represented 12 students working in 12 third sector organisations. In 2012, the initial campaign was designed having students in mind. Therefore, the project team aimed at creating visually appealing, fun and engaging content to attract student attention. The mascot, ladybird, was introduced and that was the key feature of all visual communications. Based on the online search, it appears that there were a few initiatives have a similar name and colour scheme as GoGreen. However, majority names were from the private sector or non-governmental organisations. Therefore, the project team wanted to stand out by developing a unique logo design. The GoGreen logo design and website name 'GoGreenMovement' indicates the dynamic nature of the project and its constant renewal.

The project's motto "Think Big, Start Small" reflects the ambition of the project team and embodies a passion for EfS in the higher education. The posters with two ladybirds having a conversation were introduced during the promotional week (see Appendix 3), followed by presentations delivered by the project team.

A number online and printed materials were created with a similar style, look and feel such as flyers, posters and brochures, business cards, polo shirts, website and welcome packs for students and organisations that included vital information about the project and participants (see Appendix 4). Additionally, the external stakeholders recognised the playful campaign. The project's principal investigator used small knitted ladybird (mascot) as a part of promotional material and for social media campaign (see Appendix 3). Different people developed affection with the ladybird which later was uploaded on Twitter and Facebook. The key brand attributes such as logo, tagline and are summarised in table 8.2 (additional branding materials presented in Appendix 4).

The project team aim at developing small and powerful narratives on sustainability, and by using these "friendly pets" team managed to create an immediate emotional connection between the audience and the project.

**Table 8.2 The key GoGreen brand attributes**

		
GoGreen Logo and tagline	Mascot Ladybird (digital version)	Mascot Ladybird

Using pets as mascots (lucky in charm in French) has been extensively highlighted in the literature from a business perspective (Brown and Ponsonby-McCabe, 2014) and higher education (Esposito and Herb, 1997). The mascot is the extension of the brand, and it is a visual representation of what the team believes are the best features of the GoGreen Pilot'12 project. Additionally, the mascot is an important benefit to develop a personal connection and meaningful long-term relationship with the project brand and its significant component of integration within the brand community (McAlexander, Koenig and Schouten, 2006). Throughout the interviews students motioned the quality of various materials presented to them (PowerPoint presentations, flyers, welcome packs et cetera). For instance, the following quote indicates the importance of project's visual brand representation and engagement with the third sector organisation that participants mentioned after 1,5 years later (Stage IV):

"I think the brand was well built because it is something very catchy. Any time you see the same word the GoGreen with the Ladybird and the colours it will get your attention. You may not know what it is, after you got told what it is and anytime you see it you just recognise it. When I was in the project I used to work in the town centre and one of charity shops was working with us and they put like a stamp on the window with our brand. So, the first thing is that I saw that is a ladybird, you recognise it and I really think it works a lot in order to catch attention of the people. I was working in nursery and in my case I was working with kids, the colours and the stands they were really bright and they get attention of the kids. I still believe if you go there now and show the flyers to the kids, they will know what that is: they have to switch off the lights, etc. Because it was something that got into them by images and is something that was recognised. When we were in the conference of Higher Education Academy we showed the logo to them, you can see and compare with different organisations and it wasn't as bright... it didn't get as much attention and when they saw ours. It was like what is that, let's see, I like the colours and it is something really get you interested in." (S9-SIV)

Moreover, the project coordinators brought attention to the branding and linked with student engagement:

“I think in this context being the kind of person that people immediately feel attracted to engage with and want to engage with you. I think the thing about GoGreen being so beautiful was that people – it was so well branded, and you had almost this brand of being fun and warm, and that made them come like flies around you. It was not just a weekly seminar; it was a weekly get together, like a family situation I think.” (R2 – SIII)

Research findings present that making project visual identity is seen as the vehicle to engage team members and their collaboration. Also, it benefits increase the recognition of the project inside and outside the university. A few scholars agreed verbal, as well as visual representation plays a significant role in organisation and management research (Ladkin and Taylor, 2009; Meyer, 1991; Rose, 2016). However, visual mode of meaning has mainly remained unexplored (Meyer, *et al.*, 2013).

## **8.5 Pedagogical approaches**

Using different and diverse pedagogical approaches was one of the aims of the GoGreen Pilot'12. Project partners delivered some of the sessions from the NUS and the University of Bristol. The project team provided the ethos of the project, introduced workshops linked with student employability skills such as sustainability leadership, communication and professional behaviour. Secondly, the team included the specific training about research methodologies, data collection and analysis as the students were developing their dissertation with additional individual supervisory sessions. Finally, participants were trained to use the Green Impact system provided by one of the project partners from the NUS. An additional session on how to do eco-auditing received accreditation by Institute of Environmental Management and Assessment (IEMA) in coordination with the NUS (see Appendix 4).

Additionally, workshops were designed to enhance students learning skills and reflective practice to foster student engagement. Students were introduced to visual research method called graphic elicitation (Bagnoli, 2009; Kearney and Hyle, 2004; Rose, 2016). For instance, participants-generated drawings method has its roots in organisational research and has been identified as a significant component in business and management education research (Meyer, *et al.*, 2013). During the first meeting, participants were asked to draw their journey and how they see themselves now and at the end of the project, what kind of skills and knowledge they expect to get. Students were encouraged to identify any obstacles or opportunities they might face. After the

exercise participants were asked to comment and reflect what the drawing was intended to convey.

Moreover, students have been introduced with additional art-based methods (Knowles and Cole, 2008) such as The Exquisite Corpse (Breton, 1972) surrealist collaborative drawing game as team building exercise and dolls-making exercise based on work of Gayá Wicks and Rippin (2010) (see Figure 8.4 and Appendix 9).



**Figure 8.4 The Exquisite Corpse - collaborative drawing game**

Participants highlighted graphic elicitation and art-based methods were beneficial as pedagogical tools for students' self-inquiry, self-reflection, creativity and collaborative learning (e.g. Exquisite Corpse). Research findings indicate students enable to enhance their employability skills, personal development and contributes towards lifelong learning (Blewitt, 2013). For instance, in the quote below participant highlights the practicality of creative, art-based activities and how 1,5 years later she applies those skills and methods to her further development.

“I think that kind of creative ideas; exercises are especially useful. Because they help you to get out of your routine and actually you see the different perspective, from whatever job you are doing. I really find out for my personality and the way I am it really works for me. Rather than sitting next to computer or just with a piece of paper writing 24 hours a day, or seven hours straight. Thanks to these art workshops, and these kinds of approach, I think the information you have given it gets more into you. All the workshops that I've been with the GoGreen Pilot'12 I still remember them, I still use them, because I remember. When I do my assignments, as I said, I just start doing the brainstorm mapping and that works perfectly fine. I also do my reflection writing, and I can remember my different notes or maybe just by drawing I would remember something, that something that really get stuck into you and it is useful in order to develop further whatever you are doing.” (S9-SIV)

The experiential and social learning was the foundation of the GoGreen Pilot '12. The comparison between formal curriculum in the business school and the project addressed in the 8.3 section. Some ideas of experiential learning and EfS has been already experienced in the ARU (Acevedo and Johnson, 2013; Acevedo, *et al.*, 2012). GoGreen Pilot'12 team aimed to shift students' learning environment from the University to the third sector organisations. During the interviews participants brought attention to the benefits of experiential:

“I think the action learning process was one of the best things, because as I said you're actually first learning through doing. Secondly you actually learning how to apply the tools that you are given in the workplace. For example I'm in Anglia Ruskin and I been having all the modules we go to lectures and will learn everything but they teach you theories and that is all. While interacting in the GoGreen project from the beginning how to communicate, how do I look, how should I keep contact with the person, how should I interact, or how simple to do simple thing as writing email, a formal email. Those are the skills that you do not learn unless you are in the working environment and the GoGreen just give you the tools for you to apply and that was amazing. That's why I got the jobs.” (S9-SIV)

The literature on EfS emphasise the need of transformation of the current mainstream education system (Sterling, 2001; 2012). Scholars stressed the need for new methods of teaching and learning such as experiential learning, action research and learning; and calling for active student participation in their learning experience (Bradbury, 2001; Costello, 2011).

## **8.6 Collaboration, student engagement and development**

This theme refers to the group engagement and collaboration. It was the first time when 12 students and project partners from NUS and the University of Bristol were working together. 12 students were from diverse backgrounds and were studying at various levels (undergraduate and postgraduate). However, students shared their personal

enthusiasm and passion for sustainability and environment management that was evident in their videos. The applicants for the GoGreen project were from different countries and their personal experience in the home country had an impact to their personal decisions. In the following quotation student (S2) refer to his home country and shares his ambition and passion preserving the natural environment and seeking to engage into the project actively.

“I am from Nigeria actually doing my master’s in business management and I come from backgrounds where environmental issues are at the climax that gave me an interest in environmental issues and sustainability...I like to be a part of GoGreen research program, because I am very enthusiastic person about the environment. I had my first degree in animal and environmental biology and since then I have this passion of being an environmental scientist or activists. ... I would like to be a part of a change in this generation and the conservation of the environment. In talk off the conservation of the environment, it is quite elaborate and very interesting field of study of which I have a dream for. I would like to be the part of this program to impute my skills and abilities into the research.” (S2-SI)

Another participant (S8) as indicated in the quote below stressed the additional activities outside the university that brought attention to environmental issues and could have motivated to apply for the GoGreen Project.

“I am really interested into environmental issues. I think it is so important to gain knowledge about it too. Additionally, I went to the United Nations Climate Change Conference 2009 in Copenhagen and that was a really important experience for me and I get a lot of knowledge there too.” (S8-SI)

Some of o the students shared their motives to improve their employability skills or write their dissertation and had little knowledge about sustainability. Therefore, the team intended to engage students with co-operative learning, share their practices and experiences with each other through training sessions, informal curriculum and reflective practice. The implication of informal curriculum to the students’ development in the University has been highlighted in section 8.3.

During the GoGreen Pilot 12 (Stage II) students were introduced with extra curriculum activities such as the photo shoot, tai chi session and informal meetings outside the University. Some students did not see the usefulness of some of the activities (for instance tai chi exercise). They mention the lack of communication of the exercise or the link with the project. However, during the interviews participants brought attention to the significance of informal curriculum. ‘Having fun’ and ‘excitement’ were frequently-used words students mentioned regarding extracurricular activities. For instance, during the photoshoot students emphasised that they felt more interest in the project and enjoyment working together as a team:

“For the fourth meeting we had scheduled a photo shoot. The photo shoot was fun and our talented photographers did a great job in getting everyone loosened up and bringing out the best in us. At the end we also took some silly photos in groups of different combinations. I found the session useful in the sense that it brought us together – literally – in a more relaxed setting. There we would meet our collaborating organisations for the first time in person. Exciting! Posing for the photos and talking in the video was an extremely helpful exercise in presenting ourselves relatedly but professionally.” (S7-SII)

During the interviews students underlined the relationship and communication with supervisory team. The participants felt that they were part of the team and their contribution and ideas were valued. Students described GoGreen environment as open, friendly and compared it with the family. Similar views were shared by project’s leading team and partners that identified their personal and professional development during the project. The distance between students and teachers faded and assisted students to overcome various obstacles while they were working with the third sector organisations. At the same time project team were learning the best teaching practice towards sustainability. Related views were evident during and after the project. For instance, one student said:

“We were all GoGreen Pilot’12, it was our baby to say in a way. We were all supporting each other, when we were doing something for the project. It was not like your job; you have to do it. It was I want to support, I want to give something to it, I think this would be good. We never felt you were our supervisors or the group of the supervisors, we felt, at least I felt we were like entire team. We were always interacting; you were always asking for the ideas. We were giving ideas or we just giving opinions any time. So that is belonging, you may feel special, because if you don’t feel you are supporting the organisation, you don’t feel that you are a part of that something and you are an essential key or you play a key role in that place.” (S9-SIV)

The findings shows that students involvement through empowerment, clear communication of information about the organisations values, strategy and purpose, providing support and feedback fosters behavioural, emotional and cognitive engagement with the project (Trowler, 2010). Furthermore GoGreen project’s culture contributed to personal and professional change and deep learning towards sustainability (Warburton, 2003). During the individual interviews similar views shared by participants after the project (SIII) and 1.5 year later (SIV). After the GoGreen Pilot’12 project collected evidence specifies that some students have changed their lifestyle, others become more conscious about their environment where they live on daily basis. Participants started to make more environmentally friendly decisions for instance buying local produced or use bike instead of driving a car. Other students indicated using self-reflecting journals for their studies. Another participant implemented similar to Green Impact methodology and leading the change in his organisation. Student become a

change makes in their homes and educating their families and friends. For instance, one student said:

“At the beginning when I joined the project, for me was I didn't know what sustainability was. Now I want to have as my future career in general. Now I know by doing something very little you can change people's behaviour, you change your own behaviour and you can change in general a lot. Helping a lot of people only you do not even know about it. Now I feel interested making people know more what it is, how can they change their behaviour by applying all these, because the main problem is I think people is like kind of ignorant they think sustainability is like big thing, like we have to do a lot. Just by recycling simple cup they are doing something and changing a lot.” (S9-SIV)

Findings are linked with the broader discussion in the higher education literature related with students' retention and belonging (Dunne and Owen, 2013; Thomas, 2012) similarly engagement through partnership (Healey, Flint and Harrington, 2014). Additionally, findings indicate the prominence of organisation's culture, action-based learning environment, the relationship between learners' and teachers' that foster creativity, innovation and individuals learning towards sustainability. Research outcomes resonances John Ruskin's (Collingwood, 1900; Ruskin, 1853) and John Dewey's views (Dewey, 1958; 2002; 2004) are linked with the educational philosophy. Current formal curriculum associated with sustainability emphasises the unsustainable world (Orr, 2004). GoGreen Pilot'12 was opposite, and in agreement with Ruskin's and Dewey's school of thoughts, the project brought the concept of aesthetics, self-enquiry to the business and management education that aimed to actively engage, explore environment through senses and creativity.

Furthermore, Dewey's ideas are based on the pragmatic school of thought, and he is known for progressive education concept empathising students interaction with their environment to adapt and learn (Dewey, 2007) similar ideas are related with social learning theory (Bandura, 1971) were foundations of the GoGreen Pilot'12. The role of educators plays an essential part in individuals' development, and GoGreen Pilot'12 learning environment adopted democratic ideas emphasised by Dewey (2004) where teachers and students were learning together. Similar to Dewey's ideas towards education system transformation, interdisciplinary collaboration, systems and critical thinking, creativity and innovation focus on a learner-centred approach have been identified as significant in teaching students sustainability (HEPS, 2004a; Sterling, 2001; 2012; UNESCO, 2005; 2010). Relatedly views are resonating in the EfS literature linked with business and management education (Figueiró, Bittencourt and Schutel, 2016; Springett, 2010).



## Chapter 9: Discussion and conclusions

### 9.1 Introduction

The primary purpose of this research has been to investigate EfS in management education, focusing on the case of ARU while exploring the case study of the GoGreen Pilot'12. This chapter aims at summarising the responses of the three research objectives (including sub-questions) that inspired this research journey:

**RQ. How can EfS in higher education institutions in the UK be explored in an integrated, holistic and systemic manner for the benefit of its different stakeholders?**

1. To investigate actions about EfS in the ARU and Lord Ashcroft International Business School (LAIBS)
  - a) What are the main opportunities and barriers to embedding EfS in ARU and LAIBS?
  - b) How is ARU embedding sustainability in its activities?
2. To explore participants' experience in LAIBS sustainability initiative titled the GoGreen Pilot'12:
  - a) How did the GoGreen Pilot'12 contribute to teaching/learning in EfS in the Business School?
3. To focus on the impact of the GoGreen Pilot'12 concerning the development of EfS practices in ARU:
  - a) How did the GoGreen Pilot'12 contribute to participants' personal and professional development?

In this chapter the main opportunities and barriers of embedding EfS in higher education institutions and linking with ARU will be discussed. Second, the participants' experience and engagement in the GoGreen Pilot'12 will be underlined based on four research stages in Micro layer which include before, during, after the project and one year and a half later. Additionally, in this section highlights pragmatic pedagogical approaches used in the project linked with EfS. Third, the impact of the GoGreen Pilot'12 to the participants will be examined aiming to underline any individual personal and professional development during and after the project. Finally, the limitations of the

research will be discussed followed by contributions and implication for the further research.

The conclusions and discussion in this chapter have been constructed based on findings in Macro, Meso and Micro layers of the research (see Chapters 6, 7 and 8). Chapter 6 aimed to identify Macro level of the research through secondary data analysis such as ARU's website, research papers, University's policies and regulations. The findings of Macro level revealed ARU's evolution regarding EfS and sustainability and linked with national and international participation in sustainability agenda. The central six themes were identified linked with an organisational change towards sustainability. The themes such as learning and teaching (education), engaging with the external community, research, universities heritage and organisational structure and operations were considered.

The Meso level of the research was exploratory aiming to gain academic views on EfS at ARU, business schools, and business and management studies (see Chapter 7). Three individual interviews were conducted with academics involved in practising sustainability in ARU and LAIBS. One interview was held with the senior academic from the University of Bristol. She is an expert in business and management education which provided insight into embedding sustainability into higher education and management curriculum. The interviewees identified vital opportunities, barriers and challenges that they were facing in practising and engaging with EfS in the University. The central four themes emerged from data analysis such as organisational culture; the context of higher education environment; understanding and interpretation of sustainability and EfS, and addressing EfS in business and management studies.

The last stage of the research was the Micro level underlined in Chapter 8. This part of the research was associated with the documentation of the GoGreen Pilot'12 project during 2012-2015 period. Micro level was divided in three main stages with additional longitudinal research (Stage IV). This brought another dimension to the research aiming to understand the impact of sustainability initiatives on students' further development after they graduate the ARU (see Figure 8.2). The data includes findings from the introductory videos, drawings, conferences, meetings, self-reflecting journals ("rich notes"), group discussions and individual interviews and three learning histories. Findings from the Micro level were conducting focused on twelve students' personal and professional development throughout the process.

Regarding research data collection and analysis, every research layer was conducted separately. Analysing data cross-checking of the consistency of findings between three

levels of research from various sources via multiple methods at various times assisted in identifying common similarities and to increase the validity of research results (Flick, 2014). Figure 9.1 illustrates the summary of main Macro, Meso and Micro layers of the research and central themes identified within each research stage.

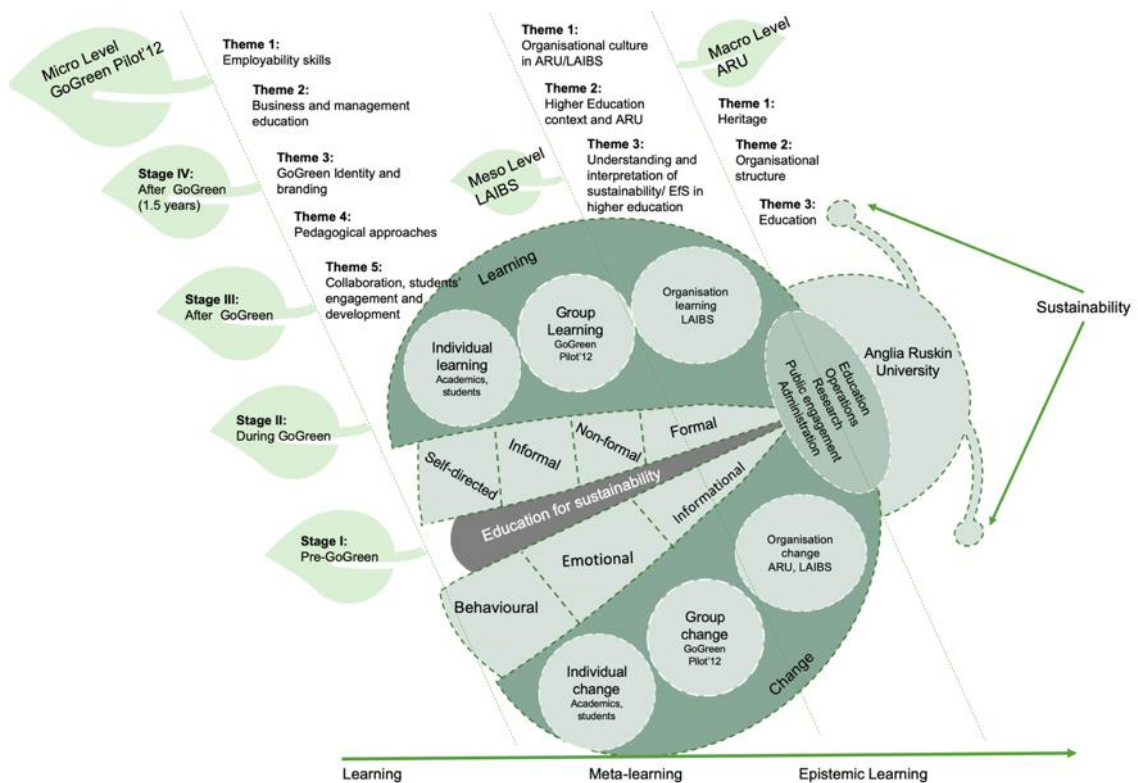


Figure 9.1 Summary of the Macro, Meso and Micro research findings

## 9.2 Barriers, opportunities towards sustainability and EfS in the ARU

### 9.2.1 Barriers to implementation of EfS in ARU

This study described ARU is a complex and multi-layered higher education institution (see section 6.3), where decision making regarding EfS can be challenging. Findings in Macro level indicated different views towards sustainability agenda in ARU (Greig, 2014) and it echoes with scholars views in the literature (Sterling and Scott, 2008; Wright, 2004)(see section 6.4.4). Similar themes have emerged from Meso layer of research linked with the significance of organisational culture and misunderstanding of the importance of sustainability (see section 7.2).

One of the most common obstacles to sustainability is the lack of capabilities and interest from academics in including it in their curriculums. This is perhaps explained by the different meanings attached to the notion of sustainability, as highlighted by many national and international documents (see Filho, 2000; Sterling, 2012) (see section 7.4), and these divergent views are also present in the ARU context. At the same time, a range of external factors mentioned in the Meso level actually influence ARU and LAIBS actions towards sustainability. For instance, the higher education sector is committed with sustainability through quality assurance and funding bodies such as NUS, REF, QAA and HEFCE. Notwithstanding, actual managerial decisions are rather influenced by the ranking system, as well as financial security, staff qualification and retention and research output, rather than sustainability indicators (Sterling, 2013).

The purpose of the universities has been driven by the motivation to attract the best talents and increase research outputs, and rankings are an '*accelerator of the reputation race*' (Hazelkorn, 2015, p. 28). Research findings indicate higher education ranking system become a significant tool for strategic positioning and branding (Selby, Jones and Kagawa, 2009). Hence, if sustainability is not addressed that could be a challenge to embed it in the universities. For this research case study, the situation is similar, albeit there is robust evidence of a commitment from senior managers and top triers about sustainability, yet, some of the decisions do not really consider it as part of their "reputation race".

### **9.2.2 Opportunities to the implementation of EfS and sustainability in ARU**

Based on the research findings in this section the main opportunities for implementation of EfS and sustainability in ARU will be outlined. The research findings show the significance of heritage and ideas of John Ruskin and their impact upon the University's culture (see section 6.2). The organisational ethos correlates with John's Ruskin's work is evident in the social media, the ARU's website, messages in the buildings and promotional materials. Further, findings revealed that ARU is pioneering in engagement in EfS and addressing sustainability in universities policies and procedures. For instance, ARU was the first UK University to sign the Higher Education Declaration for the Rio+20 Earth Summit that draws a commitment to the development of sustainable practices for Higher Education Institutions (ARU, 2014e). Likewise, at the national level ARU was a part of HEA The Green Academy concentrated on the whole strategic institutional change towards sustainability, and on enhancing the overall students experience in the university (ARU, 2013b; 2014e; HEA, 2014). Findings indicate the

need for stronger support by official bodies, government funding council to address sustainability in higher education institutions. Sustainability could be seen as a driving force for quality enhancement and institutional culture, structure, procedure and policy change (Sterling, 2012; 2013).

GSI institute and EfS director role commented about the university commitment towards sustainability. In fact, the GSI was founded as an institute for research and supporting policy making, political, financial, industrial and social frameworks that contribute to challenges of sustainability. EfS director sits as a part of GSI team, and she is responsible for promoting sustainability in the formal curriculum and to enhance students experience throughout the University. Since 2009, ARU strengthens its commitment towards sustainability through greening the campus by receiving ISO 14001 accreditation, including sustainability in Corporate Plan 2012-2014; Learning, Teaching and Assessment strategy, and Academic Regulations.

Research findings revealed that ARU is actively engaged in promoting EfS and sustainability in the University. ARU can offer students master's degree, PhD and MPhil programmes linked with Sustainability. Next to the formal curriculum various initiatives were identified linked with EfS at institutional local and international level, such as 2012 Sustainability Art Competition or International Community Experience (ICE) Mission Croatia (see section 6.4.1).

These informal programs reflect the importance of non-formal curriculum identified in the literature review (La Belle, 1982) and highlighted by the students in the research. Various initiatives around the University promotes lifelong learning (Brennan, 1997; Engelhart, 1930; Knapper, 2006) that are significant for student's personal and professional development linked with EfS. In agreement with scholars, ARU should consider the holistic approach to student development (Cameron and Harrison, 2012).

One of the most important findings, is that although there is an institutional effort for embedding sustainability in education, it is the academic's personal interest what really drives the changes (see section 7.2). Research findings indicate the significance of individuals, values, beliefs and behaviours towards EfS. The notion of sustainability champions was identified which represents individuals going beyond their duties and responsibilities in the University and displaying their interest in sustainability. The participants addressed the importance of these passionate, self-motivated individuals that are committed to sustainability and entrenching EfS into learning and teaching practice. This brings light on the universities leadership and strategic management decisions and highlights the significance to allocate time and resources for further

professional development, reward system to encourage members of staff to continue addressing EfS in their research and teaching practice. Through monitoring system towards EfS (Gomez, *et al.*, 2014), sharing good practice and collaboration (Lozano, 2008) can enhance other academic competencies that enable to engage in with EfS and incorporate sustainability into their practice (Velazquez, *et al.*, 2006).

### **9.3 GoGreen Pilot'12 participants' experience and contribution to EfS in the Business School**

In this section, the GoGreen Pilot'12 participant learning experience and teaching methods will be outlined. During the project students were introduced with classroom-based teaching and learning assisted students to develop their employability skills (leadership, communication and professional behaviour); participants were exposed to specific training about research methodologies, data collection and analysis and trained to use of the Green Impact system provided by one of the project partners from the NUS. In addition to traditional and specific training, the project also included creative teaching, which as commented in previous 8.5 section can be beneficial not only for sustainability but also for business and management, and other disciplines. Amongst those methodologies, the project included: graphic elicitation, art-based methods, leadership development and reflective approaches.

Graphic elicitation (Bagnoli, 2009; Kearney and Hyle, 2004; Rose, 2016) showed prominence in student's engagement and development. For instance, participants-generated drawings as a research method have its roots in organisational research and has been identified as a significant component in business and management education research (Ward and Shortt, 2013). Additionally, students have been introduced with additional art-based methods (Knowles and Cole, 2008) such as The Exquisite Corpse (Breton, 1972) surrealist collaborative drawing game as a team building exercise and dolls-making exercise based on work of Gayá Wicks and Rippin (2010).

Participants emphasised the benefit of graphic elicitation and art-based methods as pedagogical tools for self-inquiry, self-reflection, creativity and collaborative learning (e.g. Exquisite Corpse). These techniques helped students to improve their learning skills, reflective practice and to enhance their employability skills, personal development and overall, they contributed towards lifelong learning (Blewitt, 2013).

The action learning and social learning theory (Bandura, 1971; 1977) was the foundation of the GoGreen Pilot '12. This research shows that working with third sector

organisations has potential for students to develop their personal and professional skills and this indicates the significance of action-based learning for embedding EfS in business and management studies. The action-based learning is seen as an active societal player in developing human capital, accumulating skills and knowledge; and reproduction of dominant values assisting in integrating individuals into society (Dlouhá, *et al.*, 2013). GoGreen Pilot'12 project contribute to the existing gap identified in the literature regarding lack of EfS practices and curriculum development in business and management studies (Baden, 2013).

Scholars stressed the need for new methods of teaching and learning such as experiential learning, action research and learning; and calling for active student participation in their learning experience (Bradbury, 2001; Costello, 2011). The literature linked with the experiential learning, community engagement and reflective practice can bring benefits to students' development (Dewey, 1933; Phillips, Craig and Phillips, 2013; Senge, 1990). Therefore, higher education institutions need to involve academics to develop similar practices to engage students with sustainability and employability.

The University's culture places a significant role in promoting sustainability agenda that has been highlighted in Meso level (see section 7.2). Consequently, findings revealed GoGreen project's culture contributed to personal and professional change and deep learning towards sustainability (Warburton, 2003). One year and a half later participants specified several novel approaches linked with project's culture. First, participants mentioned academic (sustainability champions) support. Academics who dedicated their time and provided support during the GoGreen project played a meaningful role in student's development and contributed towards passionate engagement (Shrivastava, 2010).

Another important topic was the ethos and organisational culture of the actual project. Participants brought attention to the relationship and communication with the supervisory team. Students described GoGreen environment as open, friendly and compared it with the family. Students and the supervisory team actively participated in the extracurricular activities such as the photo shoot, tai chi session and informal meetings outside the University. This contributes regarding broader discussion towards nonformal and informal learning (La Belle, 1982) that could benefits in embedding EfS in the University. Students felt that they were part of the team and their contribution and ideas were valued. Similar views were shared by project's leading team and partners that identified their personal and professional development during the project. Research findings showed that the distance between students and teachers faded and assisted students to overcome various obstacles while they were working with the third sector organisations.

At the same time project team were learning the best teaching practice towards sustainability. The findings show that students involved through empowerment, clear communication of information about the organisation's values, strategy and purpose, providing support and feedback fosters behavioural, emotional and cognitive engagement with the project (Trowler, 2010).

These findings can be linked with broader discussion related with students' retention and belonging (Dunne and Owen, 2013; Thomas, 2012) as well as engagement through partnership (Healey, Flint and Harrington, 2014). Additionally, findings indicate the prominence of organisation's culture, action-based learning environment, the relationship between learners' and teachers' that foster creativity, innovation and individuals learning towards sustainability. Research outcomes resonances John Ruskin's (Collingwood, 1900; Ruskin, 1853) and John Dewey's views (Dewey, 1958; 2002; 2004) are linked with the educational philosophy highlighting the role of education in social justice, reform and ethics. GoGreen Pilot'12 aided to update and refresh such ideas bringing together a wide range of discussions on ethics, and the need to interrogate current practices on business and management education that aimed to actively engage, explore environment through senses and creativity.

Furthermore, Dewey's ideas are based on the pragmatic school of thought, and he is known for progressive education concept empathising students interaction with their environment to adapt and learn (Dewey, 2007) similar ideas are related with social learning theory (Bandura, 1971) were foundations of the GoGreen Pilot'12. The role of educators plays an essential part in individuals' development, and GoGreen Pilot'12 learning environment adopted democratic ideas emphasised by Dewey (2004) where teachers and students were learning together. Similar to Dewey's ideas towards education system transformation, interdisciplinary collaboration, systems and critical thinking, creativity and innovation focus on a learner-centred approach have been identified as significant in teaching students sustainability (HEPS, 2004a; Sterling, 2001; 2012; UNESCO, 2005; 2010). Relatedly views are resonating in the EfS literature linked with business and management education (Figueiró, Bittencourt and Schutel, 2016; Springett, 2010).

## **9.4 GoGreen Pilot'12 impact in line with EfS in ARU**

This section will discuss the GoGreen Pilot'12 participant's impact regarding EfS in ARU. Based on research findings employability skills where important theme emerged from both Meso and Micro research stages. For instance, respondents highlighted that



employability is a key criterion in the UCAS rankings. UCAS influence students' decision before selecting the University, and it has impacted the NSS outcomes. The academic view towards employability associates with students' opinion in Micro level. Students stressed the importance of sustainability knowledge for the business school graduates. Employability skills linked with sustainability and environmental management were important for the students' future development and were directly linked with the personal motivation of students to join in GoGreen Pilot'12 initiative. The links between engagement with sustainability and employability are presented in the annual surveys led by HEA, and NUS were student and employers want to see future graduates with knowledge of sustainability (Drayson, 2015a; 2015b; Drayson, *et al.*, 2013). Students highlighted the significance of practical experience and ability to do primary research linked with the third sector organisations. The research identified that organisational and academic barriers towards sustainability influence student experience in the University.

In relation to formal curriculum, students identified several concerns. First, participants highlighted that there was a lack of teaching and learning linked with sustainability and environmental issues embedded and practical experience in undergraduate and postgraduate degree syllabus in the business school. Second, in section 9.2.1, participants emphasised lack of knowledge of sustainability among academics. The lack of academics' support for sustainability initiatives was considered as critical component embedding sustainability in the business school. The lack of academic staff's awareness of sustainability which leads to uncertainty regarding its pedagogy and it has been highlighted in the literature review (Dawe, Jucker and Martin, 2005; Sterling and Scott, 2008) and similar findings discovered in the Meso level of the research (see section 7.2).

Therefore, students participating in the GoGreen Pilot'12 found it different in comparison with mainstream business and management education. During the interviews, students emphasised some awareness and knowledge of sustainability. Students shared their informal, nonformal learning experiences linked with sustainability in the University. Participants developed their knowledge linked with environmental management and various sustainability issues through extracurricular activities. Some students were active members of societies such as Global Responsibility Leadership Initiative (GRLI) or Society of Sustainable Development. Other students highlighted their experience gained from the Green Impact initiative and assisting the University to improve environmental practices. Societies, sustainability initiatives play a prominent role when engaging students with EfS. Extracurricular activities stretch the boundaries beyond formal curriculum and provide new ways of learning. Diverse types of initiatives and

interdisciplinary, multidisciplinary approaches should be considered to address EfS in the business schools (Springett, 2010).

GoGreen Pilot'12 developed 21<sup>st</sup> century skills such as student's competencies (critical thinking, creativity, collaboration) and character qualities (curiosity, initiative, persistence, resilience, adaptability, leadership) highlighted by the Higher Education Academy (HEA, 2016a). Similarly, research findings reflect the literature linked with EfS promoting skills, attitudes and attributes for sustainable future (QAA, 2014b; Stibbe, 2014; Tilbury and Wortman, 2008; UNESCO, 2011) and related with business and management education (Gregory and Miller, 2014; Porter and Córdoba, 2009; Springett, 2010).

Research finding indicates that throughout the project students have developed their professional skills and enabled them to evolve from the initiator, facilitator to a leader who delivers the change in the third sector organisations. Leadership skills play a significant part in teaching students sustainability in business and management education (Wankel and Stoner, 2009). The context created by this project provided a real-world environment for the students to hone their critical and reflective thinking and address local needs. Furthermore, students not only developed professional skills, but their lives were impacted by changes in their environmental behaviour and leading changes in their families and communities (Sax, Astin and Avalos, 1999) .

One unexpected aspect was the importance of branding and project identity was highlighted by the project participants. Printed materials, presentations, website, social media campaign and welcome packs have reflected the consistent, visual representation of the project. Using pets as mascots has been extensively highlighted in the literature from a business perspective (Brown and Ponsonby-McCabe, 2014) and higher education (Esposito and Herb, 1997). Research findings indicated mascot is an important benefits to develop a personal connection and meaningful long-term relationship with the project brand and its significant component of integration within the brand community (McAlexander, Koenig and Schouten, 2006).

Visual mode of meaning has remained mostly unexplored (Meyer, *et al.*, 2013) especially in business and management education. However, the findings indicated the significance of project visual identity and It is seen as the vehicle to engage team members and their collaboration. Also, visual presentation increased the recognition of the project inside and outside the University. A few scholars agreed verbal, as well as visual representation plays a significant role in organisation and management research (Ladkin and Taylor, 2009; Meyer, 1991; Rose, 2016).

## **9.5 Limitations of the study**

In this section, the limitation of the research will be outlined. Embedding sustainability and EfS in the University is continually changing and evolving process. Therefore, it requires more profound understanding and investigation of various trends and patterns. The research was conducted in particular time, a particular context, collecting data from a particular group of people and individuals. This research reflects findings from secondary data and views from selected academics from ARU, LAIBS and the University of Bristol and involves twelve participants and supporting team could be considered as a limited scope. However, the longitudinal research approach was introduced to justify the validity of the research outcomes and assisted in identifying common patterns and trends.

Establishing role as researcher and as a team member was a challenging process as there was a lack of experience conducting, facilitating and documenting action research process. Therefore, the boundaries between distinct roles in the project were established during the process and it contributed towards individual learning as an early-stage researcher. Spending more time on conducting the research could lead to better outcomes of the action research project. Similar challenges to action research, researcher faced with graphic elicitation and art-based methods. Data analysis identified graphic elicitation methods are novel in business and management studies linked with EfS.

Three academics were part of the GoGreen team, however, the researcher made the decision to focus on twelve students' experience in the project. Despite this, research outcomes specified views of academics from the project team for example linked with students and staff relationship that brought significant impact to the research. The GoGreen Pilot'12 team did not continue to work together after the project was finished and this echoes issues linked with limited support, funds and resources allocated for sustainability initiatives in the University.

## **9.6 Contributions and implications for further research**

In this section, the main contributions and the implications of the study will be outlined. Firstly, the conceptual contribution is explicit in the development of conceptual framework of investigating EfS in business and management studies. Secondly, the educational contribution concerns the use of pedagogical tools such as action learning and creative/art based methodologies to enhance students' learning about sustainability

and can inform educators practicing EfS. Finally, the practical and learning contributions refer to the most specific aspects that can support and practitioners from other educational institutions that are not acquainted to EfS. In this case, such contributions refer to the practicalities of embedding sustainability in teaching and learning practices. All of these are developed as follows:

### **9.6.1 Conceptual contribution: development of conceptual framework investigating EfS in business and management studies**

The holistic transformation of higher education institutions including business schools towards EfS has failed and it still remains a significant challenge that requires further investigation (Sterling, 2010; Tilbury, 2011). There have been several developments on modelling sustainable university concentrating on university's committed to sustainability in all its activities (Ferrer-Balas, *et al.*, 2008; Gomez, *et al.*, 2014; Velazquez, *et al.*, 2006)(see section 4.3.1). However, little research exists that uses organisational, group, individual learning to inform on the opportunities and challenges emerged integrating EfS in higher education (Cebrián, Grace and Humphris, 2013). Additionally, in business management studies literature shows lack of reach examining EfS in the business schools (Springett, 2005). This study has contributed to filling this gap found in the literature through the development of conceptual framework of investigating EfS in business and management studies.

The framework incorporates different school of thought. First framework is based on sustainability and EfS literature that fosters *whole systems thinking* and transformative change towards sustainability (Gomez, *et al.*, 2014; Sterling, 2003; 2010) and emphasis on business and management studies (Springett, 2005). Second, framework highlighted different learning experiences in higher education institution based on work of La Belle (1982) and Mocker and Spear (1982) that contributes towards collaboration and individual, group, and organisation change (Lozano, 2008). This research aimed to investigate GoGreen Pilot'12 participants in various learning environments such as formal, nonformal, informal and self-directed and document personal and professional change. The research outcomes showed the significance of systematically studying the learning and change towards embedding EfS among various social constructs like individuals, groups and organisations in order to build more robust sustainability oriented organisations. This research extends current knowledge on identifying the opportunities, challenges, and resistances linked with EfS which emerged from an in-depth analysis of GoGreen Pilot'12 and LAIBS at the ARU.

### ***9.6.2 Educational contribution: exploration of learning towards EfS in business and management studies***

Research in business and management studies is generally situated within the positivist tradition. Various academics and practitioners support a more diverse range of epistemological positions (Sterling, 2003). Amongst these, action learning methods have been linked with professional and personal development as well as enhancing learning and teaching practice in the primary, secondary and higher education (Bradbury, 2001; Costello, 2011; Levin and Greenwood, 2001; Zuber-Skerritt, 2013). This “learning by doing” is not something really new, as evidenced by the pledge of art critic and educationalist John Ruskin (Collingwood, 1900) and American pragmatist John Dewey (1916). These authors highlight the importance of integrating practical aspects toward the educational environment, with a particular emphasis on the role of art. More recently, academics and practitioners in EfS propose changes in the methods of teaching, specifically the need to include practical ways of education (Muff, et al., 2013; Springett, 2010). Bradbury (2001) emphasised the potential of action research and action learning in promoting meaningful conversations on sustainability and EfS. This research also established a link between action research methodologies that resonate with the action learning strategies for business and management studies. Consequently, this indicates a more suitable strategy for inquiry when investigating EfS and any other pedagogical research.

It is important to note that the students were immersed in an action learning environment, because their work with the organisations formed the basis for collecting data for the final year project. The research findings indicate that students were able to grasp the complexities of organisations when dealing with processes of change about environmental behaviour. Through self-learning, reflective practice and self-enquiry participants expound their knowledge and understanding of the complexity of third sector organisations. For the organisations, the project enabled them to learn more about environmental practices. An important result has been also the improvement of employability skills and professional development, linking EfS with the growing agenda of graduate employability and skills

An additional aspect to note is the experimental nature of the project in testing diverse methodologies and linking divergent ideas (i.e. employability and sustainability). In this regard, GoGreen Pilot’12 was an incubator to test various ideas and collaboration with stakeholders. This research indicates that students and academics took advantage of

the experimental and the action research and learning aspects. Specifically, by reflecting on their own practices and attitudes toward sustainability and the environment. Further, the third sector organisations also learned during the process and this is indeed another research opportunity to investigate the impact made by students to the organisations' environmental practices.

Overall, GoGreen Pilot'12 was a pilot project that requires further empirical research. This includes testing with other individuals, groups and organisations. In this context the purposed conceptual framework offers broader applicability. The extent to which the GoGreen Pilot'12 project informs higher education institution towards sustainability requires further exploration. Based on project outcomes this thesis has significant implications for academic development, programme design, learning and teaching practice linked to sustainability in higher education institutions.

### ***9.6.3 Practical and learning contribution: student engagement and informal/ nonformal learning***

Educational institutions are a part of significant changes in an individual's behaviour, values and beliefs and influence development in the long run. The concept of learning in this thesis assumes that learning is a lifelong attempt that can unfold in a variety of (Mocker and Spear, 1982) with universities acting as catalysts between individuals and society. The current educational system's approach emphasises formal education whilst other realms of learning and teaching are overlooked. However, formal curriculum is not the only source of learning (Mocker and Spear, 1982), and it is essential to look beyond the main curricular that also could influence the individual's personal and professional development. Exploring informal, non-formal and self-directed learning (La Belle, 1982; Mocker and Spear, 1982) (see 2.3.2) provides an opportunity for educators from any discipline to engage students and design a unique assessment.

The findings of this research show how GoGreen Pilot12 participant's were exposed to diverse learning opportunities: formal workshops and instruction; and non-formal activities such as participating in a photo-shoot (working on image and brand management); tai-chi exercises (highlighting the wellbeing element of any sustainability initiative) and art-based methodologies for reflective practice. Collected evidence implies that students built a strong relationship with the project team members through formal, informal and non-formal learning, and consequently they fostered behavioural, emotional and cognitive engagement with the project (Trowler, 2010). GoGreen organisational culture and work with third sector organisations influenced individual

professional and personal development. This was evident 1.5 years after the project, which indicates lifelong learning.

In the GoGreen Pilot'12 project the role of educators plays a fundamental part for individual development and project learning environments. There seems overlap with democratic ideas emphasised by Dewey where teachers and students were learning together. Interdisciplinary and multidisciplinary approaches should be considered when exploring different learning environments and initiatives. The introduction of non-traditional ways of learning and teaching in business and management studies, similar to the arts (i.e. drawing), physical exercise and visuality contributed towards innovation in teaching and learning. This aids understanding of complex characteristics regarding student engagement. Furthermore, such learning experience may contribute to discussions about student retention, belonging (Dunne and Owen, 2013; Thomas, 2012) and engagement through partnership (Healey, Flint and Harrington, 2014). Conclusively, the current thesis demonstrated that holistic student development including the cognitive, informational, behavioural and emotional dimensions needs to be considered in designing learning opportunities for students and academics. This research contributes toward discussions of EfS in national and international debates (UNESCO, 2005; 2012; 2013). Regarding business and management studies the main recommendation is to go beyond the formal structures and to address non-formal and informal relationships with students. Emphasis should be placed on different skills acquired through action learning, student engagement, teamwork, and experimental approaches to education.

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## List of Appendices

### Appendix 1 GoGreen Pilot'12 - sustainability initiative in LAIBS, ARU

In ARU students are encouraged to increase their employability skills and knowledge in sustainability by taking part in extra-curriculum initiatives via work placements, volunteering, and societies. Projects such as International Community Experience (ICE); ARU Students' Union initiatives for example Plan G, and Green Impact; also a number of societies including Amnesty International, Global Responsible Leadership Initiatives (GRLI), Greenpeace, GoGreen Pilot'12 has contributed to the EfS agenda (ARU, 2014d; ARU\_SU, 2014)

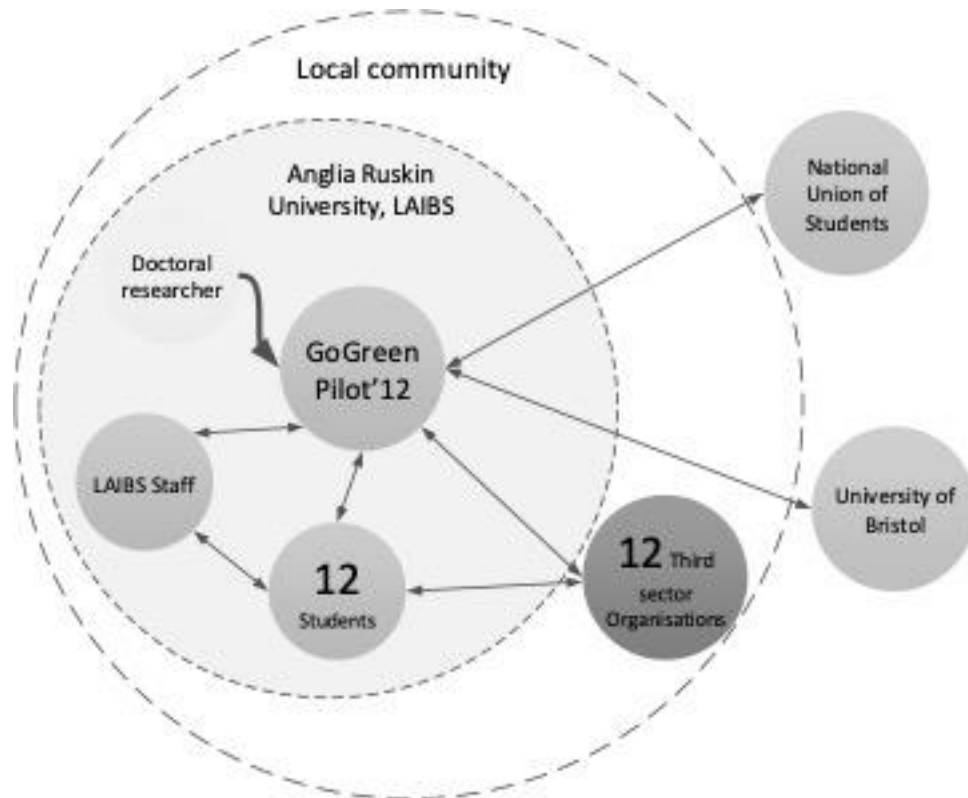
ARU has a robust strategic approach towards sustainability and EfS that is evident in Corporate Plan (ARU, 2014c), Learning, Teaching and Assessment Strategy (ARU, 2011b) and Academic Regulations (ARU, 2011b). Research done by Global Sustainability Institute (GSI) has contributed towards general discussion towards sustainability in the national and international arena (ARU, 2015a).

However, actual changes in the organisational environment, in mindset of sceptic key stakeholders towards sustainability takes time (Corcoran and Wals, 2004). Under those circumstances, it demonstrates need and importance to increase the research in sustainability initiatives. This is one of the reasons why GoGreen Pilot'12 project has been created. GoGreen Pilot'12 was first of its kind, a collaborative 18-month project concentrated on providing opportunities of EfS to students, organisations and practitioners interested in enhancing their knowledge and practices on environmental management. The general objectives of the project were:

- To promote 12 action-learning opportunities for students through work-learning placements with the aim of education for sustainable development.
- To improve employability options for students through the development of skills in the areas of auditing; environmental management systems; behavioural change and communication.
- To facilitate the improvement of environmental practices in 12 third sector organisations, in the East of England supported, by the students' work.

- To create a virtual hub for exchange and mentorship amongst students, academics, employers, and other stakeholders

The project was led by a group of academics, practitioners, experts, and students at the Lord Ashcroft International Business School (LAIBS) at ARU in partnership with the National Union of Students (NUS) and the University of Bristol (UoB). Figure 1 shows key project stakeholders.



**Figure 1: GoGreen Pilot'12 stakeholders**

The focus of the project was to have twelve students working and learning with twelve organisations of the third sector willing to improve their environmental practices. The primary strategy for the GoGreen Pilot'12 was the application of the Green Impact: a pro-environmental accreditation programme coordinated by the NUS, operating in students' unions, universities, and colleges. The programme addresses behaviours, habits, and awareness about how to improve the pro-environmental impact of the organisation. At its core, Green Impact programme presents a bespoke list of actions that organisations can easily implement to become more sustainable: ranging from double-sided printing and promotion of more sustainable travel methods, toward more strategic conversations on social and economic sustainability.

The students participating in GoGreen Pilot'12, were both facilitators in the application of the Green Impact and also they were eco-auditors. At the same time, most of the

students were doing their dissertations on this topic, thus developing analytical skills from problem-based situations, while acquiring professional skills. Overall, out of twelve participants nine of them were studying undergraduate degree and three were postgraduate students. Most of members were female and two students were male. The GoGreen Pilot'12 was developed in three dimensions: Methodological Approaches, Collaborators and Governance.

GoGreen Pilot'12 methodological approach was based on three pillars: action learning opportunities; the consideration of aesthetic aspects in the promotion of sustainability and the development of art-based methodologies (Rose, 2016); and reflective practice inspiring durable transformations for a sustainable future (Costello, 2011).

Regarding governance, GoGreen Pilot'12 had a dynamic for the project administration and a communication strategy. The core of this project was the implementation of the Green Impact, a pro-environmental program coordinated by the National Union of Students and tested in higher education institutions. The NUS had agreed to be part of this pilot aimed at testing the Green Impact in third sector organisations. NUS has developed a comprehensive platform for supporting the role of teams and facilitators. GoGreen Pilot'12 has achieved its objectives and most of the deliverables and has brought some benefits into the field of EfS in ARU.

**Practical implementation of EfS complying with ARU's strategy:** GoGreen Pilot'12 revealed the practical application of EfS, bringing together students, staff, local community and external stakeholders. GoGreen Pilot'12 contributed to the sustainability agenda stated in ARU Corporate Plan (ARU, 2011a; 2012; 2014c); Learning, Teaching and Assessment Strategy (ARU, 2011b); Academic Regulations (ARU, 2013a) and QQA requirements (QAA, 2014b).

**Innovation and research in EfS:** From research and a pedagogical perspective GoGreen Pilot'12 could test innovative ideas such as art-based methodologies with a manageable number of students. As follows, those ideas could be scaled up, or adopted into the formal curriculum. GoGreen Pilot'12 aims to be as a model that other higher education institutions could implement and aid to engage staff and students with the community.

**Links with formal curriculum.** Being considered as an extra-curricular activity, GoGreen Pilot'12 had links with formal curriculum – students have to write their dissertations based on their primary research collected from third sector organisations. Extra-curricular activities contribute towards enhancing student's engagement (Bryson, 2016) in higher educations and linked with lifelong learning (Mocker and Spear, 1982).

**Employability skills, work-based learning, and group learning:** Students have been given opportunity to be co-researchers and change agents in the third sector originations. With the support of academics, they were in charge of the implementation of Green Impact workbook. They have had enhanced their knowledge and employability skills in the practical application of environmental actions in work-learning placements. Also, ten students being the recipients of Institute of Environmental Management and Assessment (IEMA) approved training for eco-auditing in the third sector.

**Networking, students and staff engagement:** GoGreen Pilot'12 – is a collaborative project in ARU with Higher Education Academy, National Union of Students, University of Bristol and twelve third sector organisations aiming to share good practice and knowledge in sustainability.

**Community outreach, third sector organisations:** GoGreen Pilot'12 worked as a catalyst between the students and community. Students have a chance to familiarise with the obstacles and opportunities that third sector organisations are facing while implementing environmental management.

**Accountability and promoting EfS:** GoGreen Pilot'12 has presented the measurable outcomes of the project and became ambassadors of good practice in EfS. This project has helped to implement 337 pro-environmental actions, with approximate savings of 12,704 kg of CO<sub>2</sub> and cost savings of £4,700. GoGreen Pilot'12 has influenced changes at third sector organisations strategic level, for instance, Amnesty International work on changing their national policy by including environmental actions; Cancer Research UK, used GoGreen Pilot'12 as a catalyst for staff engagement; and Arthur Rank Hospice has included environmental actions as part of the induction package for volunteers. It has been acknowledged by ARU, and it has been recognised in Green Gown Awards 2013 in student and staff engagement category (EAUC, 2014a).

**A virtual hub for knowledge exchange and longitudinal research:** It has been created a virtual hub for knowledge exchange and mentorship amongst students, academics, employers, and other stakeholders. To showcase the project, it has been created website and actively participated in social media: Twitter, YouTube and Facebook.

## **GoGreen Pilot'12 and similar sustainability initiatives in the UK**

GoGreen Pilot'12 is one of the first sustainability initiatives from Lord Ashcroft Business School that has been nationally recognised by the Green Gown Awards 2013. The Green Gown Awards is organised by The Environmental Association for Universities and Colleges (EAUC, 2013) that is a not-for-profit charity with a membership of over 220 universities and colleges, supporting sustainability within the UK tertiary education sector. The Green Gown Awards acknowledge exceptional environmental and sustainability initiatives being undertaken by universities, colleges across the UK.

In 2013 three ARU sustainability projects were shortlisted for the Green Gown Awards final out of total 216 applications. Project was competing in categories such as Carbon Reduction; Construction and Refurbishment; Continuous Improvement: Institutional Change Courses; Facilities and Services; Learning and Skills; Modernisation – Effectiveness and Efficiency in the Estate; Research and Development; Social Responsibility; Student and Staff Engagement; Sustainability Champion Award and Technical Innovation for Sustainability (EAUC, 2014a). Comparing with 2012, in 2013 it has been introduced new category Student and Staff Engagement highlighting the importance of such sustainability initiatives that can enhance overall institution change towards sustainability (EAUC, 2013, p.1):

Recognising that students and staff must work together to achieve goals using “top down method” and “grassroots method” to achieve maximum understanding and engagement across an institution.

ARU sustainability projects were competing in three categories: courses; research and development, and student and staff engagement. Two entries were from Global Sustainability Institute including the new master's degree course (MSc) in Sustainability (course category) and a knowledge transfer partnership to run the East of England Adaptation Network between the GSI and Sustainability East (research and development category). The third and final entry was from LAIBS in the category for student and staff engagement with the project GoGreen Pilot'12: Employability, leadership and sustainability - Think big. Start small! (EAUC, 2013)

In fact, in 2013 with 216 applications received across 13 categories, there were strong category favourites. According to EAUC (2013) top 3 categories representing 42 per cent of the overall applications were; Student and Staff Engagement (15 per cent), Sustainability Champion (14 per cent) and Facilities and Services (13 per cent). The GoGreen Pilot'12 has been shortlisted amongst other 7 projects from all around the UK. Appendix 7 includes a summary of all finalist projects. In comparison GoGreen Pilot'12



project with other nominees including winner Walsall College Student Union, and highly commended projects from Durham University and the University of Brighton similarities and differences were identified.

As far as **similarities** are concerned, all projects are based on action or problem-based learning approach trying to address the twenty-first-century challenges. Challenges that include energy efficiency, waste reduction; engaging with the natural environment; involving the local community, at the same time, directly and indirectly, increasing students' knowledge and employability skills. Bradbury (2001) particularly has emphasised the potential of action learning in promoting meaningful conversations on sustainability and EfS. Action learning is evident in various scholars' work linked with EfS practices including management education (Muff, *et al.*, 2013; Springett, 2010). According to Figueiró, Bittencourt and Schutel (2016) stressed the importance observing and interactive with social context beyond formal curriculum could prepare future business leaders to take responsible and ethical actions. Additionally, collaborative approach, fun elements, innovation, and interdisciplinary are common themes among all these projects that aid to engage with different stakeholders and echoes literature on tackling sustainability in higher education (Figueiró, Bittencourt and Schutel, 2016; Springett, 2010).

One of the main **differences** of GoGreen Pilot'12 with other project is a significant difference in length and scale of projects. Most of the finalist projects have been applied within a large scale, for instance, at all university level in University of Brighton and University of Worcester, also engaging with whole community (Walsall College, City College Plymouth). Some of the projects are ongoing (University of Gloucestershire) and some has for instance five years Strategy such as the University of Brighton (see Appendix 7).

GoGreen Pilot'12 lasts 18 months and having four academics working with twelve students; it could be considered as a small-scale project regarding human and financial resources. However, GoGreen Pilot'12 has contributed to the improvement of environmental management in 12 third sector organisations. The project has contributed the national policy change in Arthur Rank Hospice including training on pro-environmental activities for volunteers at the national level. Cancer Research UK Research Institute has created a staff engagement programme for sustainability matters based on GoGreen Pilot'12. As follows, it shows that GoGreen Pilot'12 model has a potential that might affect thousands of employees in mentioned organisations all around the UK. In summary, compared with other projects, GoGreen Pilot'12 stands out for the following reasons:

**Art-based methodologies.** It has included art-based methodologies that use art as a tool for better understanding of sustainability. Previous studies indicate that art and aesthetics can be suitable vehicles for connecting the rational and the spiritual realms associated with sustainability (Bathurst and Edwards, 2009). Along similar lines, researchers such as Dieleman and Huisinigh (2006) have started to investigate the role and potential of arts and aesthetics in EfS.

**Working with third sector organisations.** None of the Green Gown Awards 2013 finalists had explored the potential of third sector organisations. Those organisations have potential to be a learning opportunity for students. At the same time students are contributing and leading to the environmental management change inside the origination. This could be considered as a win-win-win situation (university –students-community).

**Reflective practice and links with formal curriculum.** Throughout the project students have been encouraged to reflect their experience via rich notes, blogging, informal meetings, and video. At the same time, this approach has contributed to the formal curriculum that they have included theses experience into their final dissertations. Based on EAUC (2013) reflective practice and linking it with the formal curriculum is not extensively evident among shortlisted projects for the Green Gown Awards 2013.

**Research in EfS and sharing knowledge.** Next to the students' dissertations on this project was working researcher to document the entire process, including students' experiences before, during and after the project. GoGreen Pilot'12 aimed to share this experience with other EfS researchers and practitioners via the website, Facebook, Twitter and YouTube.

## Summary

ARU includes sustainability agenda into its policies, for instance Corporate Plan (ARU, 2014c), Learning, Teaching and Assessment Strategy (ARU, 2011b) and Academic Regulations (ARU, 2011b). Moreover, there were a number of extra-curriculum activities available for students at the university. Global Sustainability Institute (ARU, 2015a) work shows the commitment towards sustainability research agenda. However, there are lack of sustainability initiatives at the LAIBS.

GoGreen Pilot'12 was one the first sustainability projects originated at the business school. While working with third sector organisations GoGreen Pilot'12 aimed to

promote EfS at the business school and improve students' employability skills. GoGreen Pilot'12 sets an example of practical application of EfS, testing innovative ideas and links formal and extra-curriculum activities.

GoGreen Pilot'12 was shortlisted for sustainability awards called Green Gown Awards 2013 (EAUC, 2014b) that showcase the importance of similar initiatives. Abased learning and collaborative approach were the dominant themes in Student and Staff Engagement category during Green Gown Awards 2013 (EAUC, 2013). Being small project based on financial and human resources GoGreen Pilot'12 stood out as innovative project that used art-based methodologies, reflective practice and engaged with different stakeholders. This project brought attention to informal and nonformal learning based on La Belle (1982) and overall students experience at the business school in view of EfS.

## Appendix 2 The main stages of Micro level: research purposes and brief description

The main stages of Micro level: research purposes and brief description

Research Stages	Research purposes	Brief description
<b>Stage I: Pre-GoGreen</b>	<p>Project introduction phase. Students were encouraged to submit 1 min video justifying why they want to participate in the project.</p> <p>Analyse participants videos submitted to the GoGreen Pilot'12 and brief information provided by the students.</p>	<p>The GoGreen Pilot'12 was introduced in the LAIBS. The promotional campaign was organised around the university.</p> <p>The campaign included presenting project to the students during the lectures and flyers and posters around university.</p>
<b>Stage II: During GoGreen</b>	<p>Students were asked to take part in drawing exercise (Road map).</p> <p>To use visual research method called graphic elicitation. Analyse visual representation of participants thoughts and feelings linked to the project.</p>	<p>During the first meeting, participants were asked to draw their journey and how they see themselves now and at the end of the project, what kind of skills and knowledge they expect to get. Students were encouraged to identify any obstacles or opportunities they might face.</p>
	<p>Learning History One (LH1). The key areas of attention were as follows:</p> <p>GoGreen identity - thoughts and experience being part of GoGreen team.</p> <p>Students transformation (if any) - to identify skills/changes/knowledge developed while participating in the project.</p>	<p>First group meeting. Focus group involved students, project partners from NUS and academics. The aim was to find out and share initial impressions of GoGreen Pilot'12 project.</p>
	<p>Leadership &amp; Doll making:</p> <p>After the exercise the participants were asked to share their experience, impressions and their views on sustainable leadership.</p>	<p>During sustainable leadership workshops students' were invited to doll making exercise based on work of Gayá Wicks and Rippin (2010).</p> <p>The emphasis of this exercise was offering a tangible, meaningful, material expression of what leadership means for each of the participants.</p>

	Global Sustainability Institute Conference – shared students experience in the project. Find out students' views towards EfS and learning experience in the University and GoGreen Pilot'12.	Global Sustainability Institute Conference was organised in ARU. The principal researcher and 4 students shared and discuss their experience in the project. Participants were asked for their views and feedback linked with EfS and the University.
	<p>Learning History Two (LH2).</p> <p>Engage participants in a group discussion and critical reflection. The key areas of attention were as follows:</p> <p>Unfolding students' role in the project concerning with the university's environment and while working with the third sector organisations.</p> <p>Reflecting on process and methods of learning throughout the project.</p>	<p>The presentation by researcher was delivered to the participants before the focus group. Researcher highlighted the main themes and findings from the previous Learning History One (LH1). In focus group 2 academic members and 12 students had the opportunity to reflect upon the process and identify challenges, successes and opportunities.</p> <p>Also, LH1 assisted the group comment on issues related to EfS, curriculum improvement, and overall organisational change.</p>
	<p>Reflective journal: students have been asked to keep a reflective journal and update it regularly.</p> <p>Observe students' individual experiences, their personal and professional development.</p>	All 12 students were asked to document their thoughts, feelings and experiences throughout the project. It aims to provide a detailed record of individual interactions with multiple stakeholders (e.g. fellow students, supporting academic team, third sector organisations), identify personal challenges, opportunities and set up a course of action.
<b>Stage III: After GoGreen</b>	GoGreen Reunion – find out what happened with participants after the project.	Five students focused on their experience during the project, they major achievement and challenges. Participants were asked to share their personal and professional development and career or further education plans after the project.
	Learning History Three (LH3) – aims to reflect the entire GoGreen Pilot'12 project process, management experience, main challenges and opportunities.	Reflection on Learning History Two (LH2). Shared summary of the main findings from LH2. Focus group was organised with 2 participants: project principal researcher and external partner from NUS. Participants were asked to reflect on their experience in the project from managerial perspective and potential contribution towards EfS at professional and institutional levels.

<p><b>Stage IV: After GoGreen (1.5 years later)</b></p>	<p>Individual interviews with 12 students after GoGreen Pilot'12 (1.5 years later).</p> <p>Looking into student's further career and personal development, reflection on GoGreen Pilot'12 and overall studying and learning experience in the University and LAIBS.</p>	<p>Skype individual interviews with all 12 participants were organised. The aim was to find out what students carried from the project through their professional and personal development. Also, students view towards different learning methods addressed in the project (e.g. art-based methodologies and action learning) as a part of employability skills and EfS in the University.</p> <p>Critical view concerning overall experience in the LAIBS.</p>
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## Appendix 3 GoGreen Pilot'12 posters



## Appendix 4 GoGreen branding material

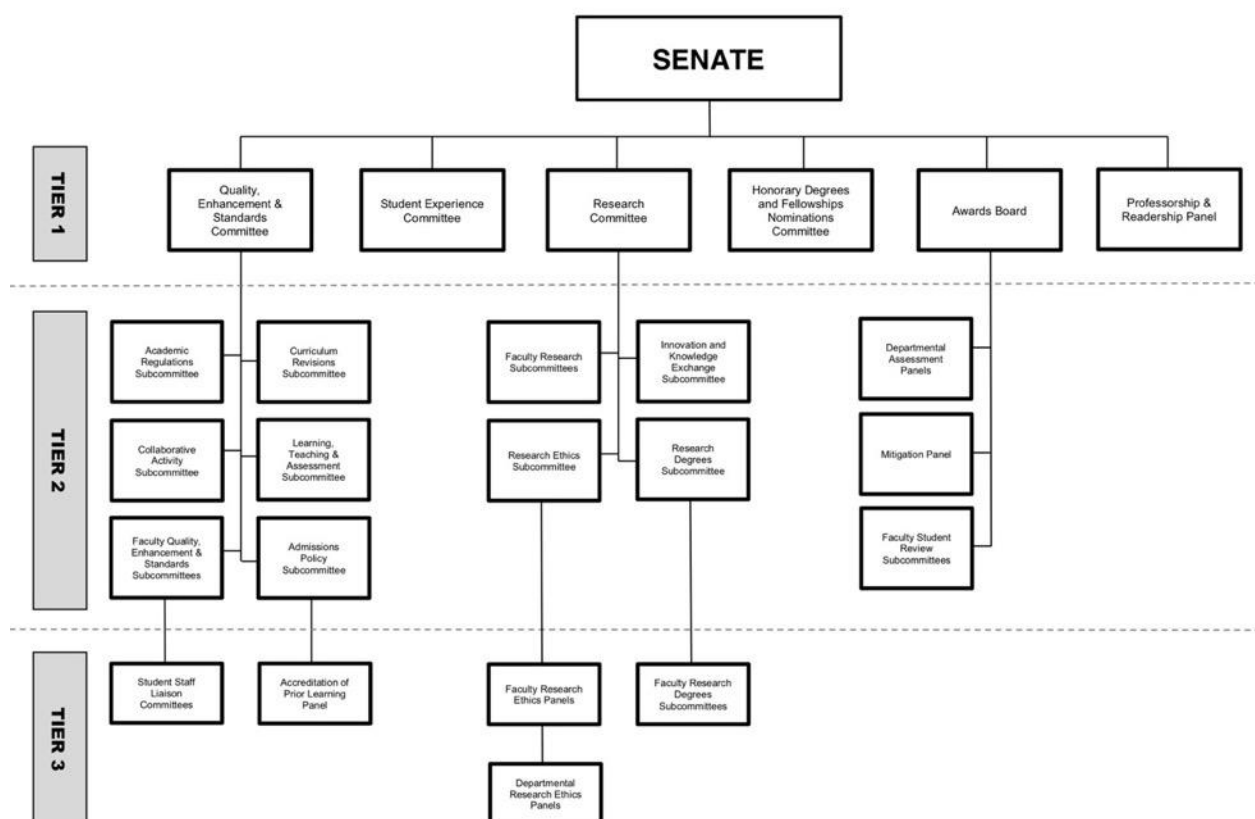




## Appendix 5 GoGreen sessions

Name of Session	Date
Welcome GoGreen	09/11/2012
Communication skills	28/11/2012
Introduction to the Green Impact	28/11/2012
Professional and research skills, ethical procedures, blogging and professional notes.	21/01/2013
Green Impact workbook and resources	28/01/2013
Research Methods and Dissertation – The literature review	04/02/2013
Research Methods and Dissertation – Research Methodologies	11/02/2013
Sustainable Leadership	18/02/2013
Research Advanced and Dissertation -Case study methodology	25/02/2013
Eco-audit skills training – IEMA approved.	11/03/2013
Research and Dissertation	25/03/2013
Critical approaches	15/04/2013
Pre-Green Impact Report	22/04/2014
Research and Dissertation	29/04/2013
Report writing for Organisations	06/05/2013
Preparing the portfolio	27/05/2013

## Appendix 6 ARU diagram of academic governance committee structure



Source: ARU (2017b)

## Appendix 7 Green Gown Awards 2013 winners and highly commended projects

Institution and project name	Project summary
<p>Anglia Ruskin University, LAIBS</p> <p>GoGreen Pilot'12: Employability, leadership and sustainability - Think big, start small!</p>	<p>The aims of GoGreen Pilot'12 are: first, increase the employability of students through their experience as facilitators of environmental practices, by developing their communication, time management, report writing and leadership skills. Second, embedding sustainability in the formal and informal curriculum in higher education. Third, working with communities and organisations willing to improve their environmental practices. Twelve students, supported by a group of academics, received training from the NUS to support twelve third sector organisations in Cambridgeshire</p>
<p>City College Plymouth</p> <p>Grow Allot</p>	<p>Grow Allot is initiative created by the College to restore an area of disused ground at its Kings Road site into an allotment style, community garden. The project aims to make gardening fun and accessible to individuals of all ages and abilities. Students, staff and the local community are given a solid foundation and a connection to the earth through gardening. The College has to date worked with over 500 individuals during the project's short life. Overall it aims to have imbedded the community garden into all areas of the College.</p>
<p>Durham University:</p> <p>Biophilia: Engaging staff and students in biodiversity sustainability (<i>highly commended</i>)</p>	<p>The Greenspace Biodiversity Group has undertaken extensive engagement in biodiversity awareness, monitoring and enhancement across the University. Engagement tools include training, online biodiversity identification and recording, blogging and guided walks. The benefits of the engagement project portfolio are many and varied. They have engaged many students in monitoring work and ran several final-year student projects on site. This has engaged staff and students alike and has strengthened University links with the local community through press releases and working with Durham Prison.</p>
<p>The University of Nottingham</p> <p>Sustainable super heroes</p>	<p>In 2012 the University of Nottingham launched a 'How green is your lab competition', kick-starting multiple programmes for long term change, including: Energy efficient lab practice's, A chemical sharing database to reduce wastage, A food waste-caddy, E-on Power-down plugs that switch off peripherals when the PC is off and Belkin conserve switches that simultaneously shut down up to 6 pieces of lab equipment. The competition succeeded in engaging 8 PG teams, UON staff, Sustainability department and Management board.</p>
<p>University of Brighton</p> <p>C-change: Cutting our carbon by 50% in five years (<i>highly commended</i>)</p>	<p>C-change is the overarching brand for sustainability related engagement at the University of Brighton. The campaign utilises new forms of communication, well-resourced engagement opportunities and an element of fun to engage, inspire and support students and staff to cut carbon and reduce their environmental impacts across the entire</p>

	<p>university, in halls of residence and also in their personal lives. With such diverse audiences and themes the campaign has had to be creative in the way it engages, stepping outside the normal university engagement and offer new ways to be involved for staff and students. The results have been spectacular, with the campaign being seen as a shining example of how to run a large-scale communication campaign within the institution.</p>
<p>University of Gloucestershire</p> <p>Student Union - A red hot social enterprise – The Cheltenham Chilli Company</p>	<p>The aim of the project get students producing their own food sustainably. Supported by Union staff, University of Gloucestershire (UoG) Sustainability Team and members of the community, students regenerated a disused University greenhouse and its surrounding area on campus so that it could grow large numbers of chilli plants.</p> <p>After lots of hard work and a number of kind donations of materials, such as seeds, pots and compost, the Cheltenham Chilli Company has successfully grown around 500 chilli plants and is now producing and selling chilli products. Students are encouraged to lead the business with their ideas and initiatives incorporated into the project including: running a University wide branding competition; undertaking market research to help inform the product to be produced; creating content for student-based and wider media.</p> <p>UoG has engaged students interested in sustainability and, by creating a business, has attracted students interested in developing their employability skills.</p>
<p>University of Worcester</p> <p>Energize Worcester – Students drive energy efficiency in their homes with Green Deal</p>	<p>An innovative project using students to do an online Green Deal preassessment survey of 260 student houses as part of a broader approach to maximise the uptake of the Green Deal in Worcester; lift students out of fuel poverty; provide 'earn as you learn' and CV enhancing opportunities.</p> <p>Energize Worcester has opened up enormous possibilities for students to couple their studies with real-world experiences through linkages developed with businesses and other organisations linked to the green economy. It has enhanced student's employability through training and practice - the professional skill sets developed in the project has enhanced their employability.</p> <p>Students across all academic disciplines have developed better understanding in home energy efficiency. The energy advice provided to households by the project made significant numbers of student tenants more energy aware, and willing to improve their behaviour in the future. Reaching over 1000 students whose homes have been audited, this involved over 10% of the university's student population.</p>
<p>Walsall College</p> <p>Student Union - That bit extra (winner)</p>	<p>"That bit extra" promotes an engaging project that has included everything from plants to pants. The Students' Union successfully bid the NUS Student Eats to promote a College food growing society. The College entered environmental projects in the Lloyds MFL Challenge. Don't Spend a Wedge involved students handing out free pots and seeds and Cash4Trash raised recycling awareness highlighting items to exchange for cash. Its Chelsea Fringe entry used recycled containers to display plants in a shopping trolley to challenge the 'take away culture' and show how to grow your own.</p>

	<p>Walsall College was the first winner of the Pantrepreneur Challenge, a national enterprise competition to raise awareness of Fairtrade cotton; their prize was an educational trip to India. Ethical banking is promoted to all through Walsave, the College based credit union. These activities raise the profile of individuals, the College and Walsall to a national and international level.</p>
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Source: EAUC (2014b)

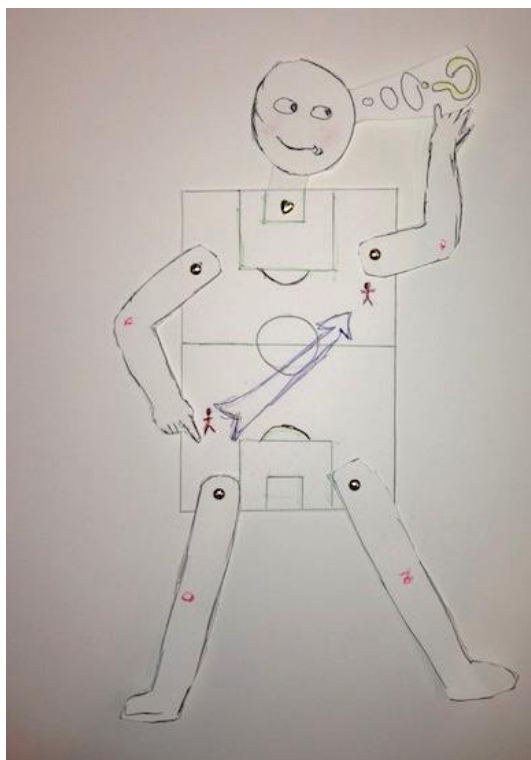
## Appendix 8 Students' drawings (example) – “Roadmap”



## Appendix 9 The Exquisite Corpse students' drawings (examples)



## Appendix 10 Dolls-making exercise (examples)





## Appendix 11 Organisational learning theory

Calcification of organisational learning theory	Authors and Ideas
Classical works	<p>Experiential and social learning perspective. Importance of Individuals learning within the organisation through action learning as a vital tool for learning organisations Easterby-Smith and Lyles (2011, p.9).</p> <p>In line with Dewey's experiential learning, (Dewey, 1916; 2007) stresses the personal (tacit) and explicit nature of knowledge in organisational environment. Polanyi (1958) embraces an economic viewpoint on organisational learning and knowledge. The author also identifies the use of qualitative methods in interested to explore and understand the process of organisational learning.</p> <p>Kolb's typology (Kolb, 1984) of individual learning styles, which have been applied to numerous disciplines, organizational contexts and professions.</p>
Foundational works	<p>Hayek (1945) work made a fundamental contribution to the organisational theory. Cyert and March (1963) one of the first authors that putting forward that organisation could learn, and organisational learning is a part of the decision-making proses were rules, procedures and policies are implemented in response to the external environment changes. Cyert and March (1963) outlined the engagement with significant and less significant learning in organisations via the concept of double-loop and single-loop learning grounded in theory-in-use Models I and II.</p>
Popularising works	<p>Argyris and Schön (1978) work has influenced practitioners and scholars with the systems thinking approach in order to enhance organisational learning.</p> <p>Senge (1990, p.1) puts forward the view on organisational learning by saying, "In the long run, the only sustainable source of competitive advantage is your organisation's ability to learn faster than its competition". Concept organisational learning is based on individuals who learn. However, individual learning does not guarantee organisational learning, but without it, no organisational learning occurs. "The organisations that will truly excel in the future will be the organisations that discover how to tap people's commitment and capacity to learn at all levels in an organisation" Senge (1990, p.8).</p> <p>Senge (1990) in his work underlines the belief that a person would learn through experience and discovery that contributed to experiential learning theory. The author created the learning cycle - a holistic model of learning process. Also, he has found individual learning styles that have been widely used in different discipline by academics and in organisational environment.</p>

Adapted from Rashman, Withers and Hartley (2009, p.469)