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Sustainability and accounting education:
The Students' Perspective

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Abstract

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Purpose – The purpose of this paper is to investigate accounting students' overall understanding of the concept of sustainable development and how it relates to their future. Moreover, this paper contributes to investigate students' attitude towards integrating sustainable development into accounting education. This study is concentrated on accounting students at Gothenburg University in Sweden.

Design/methodology/approach – To ascertain the accounting students' understanding and attitude toward education for sustainable development, a survey was administered to 40 accounting and business students at Gothenburg University.

Findings – Majority of the students perceive education for sustainable development as a “good thing.” Students were satisfied with the sustainable business learning experience offered at Gothenburg University. However, the results also suggest that students do not show a positive attitude toward integrating sustainable development into accounting education.

Practical implications – The paper can assist education providers to assess how students perceive ESD. This may help bring about changes, to improve the teaching of sustainable development.

Originality/value – There is a shortage of research concerning how students perceive sustainable development education. This study contributes to the existing literature by focusing on the fact that accounting and business education should develop graduates into broad-minded thinkers with a capacity for independent and critical thought. This will prepare them for future leadership roles.

1. Introduction

1.1. Overview

Sustainable development has collected great attention in recent years due to the growing information about the development strategies which recently have been embraced by many nations (Meadows et al., 1992; Earth Charter, 2002). The inspiration came from the Brundtland report of 1987 (WCED). It elaborated his concern in regard to the tension between the ambition of society towards a better life and the restriction imposed by nature.

Sustainable development is difficult to explain, and it is not easy for people to relate to the challenges and issues of sustainable development unless they are profiled through more knowledgeable people (Venkataraman, 2009). Education at all levels, therefore, is a platform to help move this concept into practice. In 2002, the United Nations declared 2005–2014 the Decade for Education for Sustainable Development. According to the United Nations, Education for sustainable development is aimed to addresses all three elements of sustainable development including society, environment, and economy (UNESCO, 2005, p. 57). By embracing these pillars and integrating them with education, ESD tries to help individuals make a better decision which could improve the quality of their life.

Sustainable development cannot be easily integrated into existing higher education frameworks since it requires changes in the educational system (Carew & Mitchell, 2002). Many efforts have been done and still require to direct education toward sustainable development purposes. Education is aimed to presents sustainable development as a way to change the societal lifestyles toward environmental, social and economic sustainability (Thomas, 2004). Incorporating sustainable development courses in the current curriculum is expected to be challenging for higher education (Von der Heidt and Lamberton, 2011). It is a difficult task, especially with the conventional approaches to accounting, which have a long history of preserving unsustainable practice. This will be elaborated in the discussion section.

Studies reflect upon different aspects of sustainability in the educational context (Fisher and McAdams, 2015; R Gray, 2013; Dyball and Thomson, 2013; Thomas, 2004). Fisher and McAdams investigate the sustainability in education, they checked the impact of amount and type of coursework on students' conceptualizations of sustainability. Their founding emphasis on the significant impact of the type of course that students pick, on the way in which students develop an understanding of sustainability. They also found that there is no relation between the number of courses and the student's understanding of the subject. This emphasis on the importance of mere focus to a particular subject in a class, rather than continued exposure to sustainability courses related to sustainability, in shaping students understanding (Fisher and McAdams, 2015). Thomas in (2004), introduced some barriers in the process of adoption of effective sustainability education in higher education. He suggests that this adaptation is low due to the little value that is given to sustainability (Thomas, 2004).

The common point among these papers is their persistence on the fact that Sustainable development cannot be easily integrated into existing education frameworks since it requires changes in the educational system.

As it has been mentioned above, adding sustainable development courses in the curriculum is not an easy task to achieve and has proven to be challenging for education (Von der Heide and Lamberton, 2011). These challenges are far wider when it comes to accounting since accounting shows a least adjusting with sustainable development process compare to other fields of study (Gray and Bebbington, 1993). Accounting is a business language and has a long history of not connecting with sustainable development and changes (Carr, Chua, and Perera, 2006). Accounting activity is focusing on increasing the nation's wealth, on the assumption that protecting wealth is crucial for maintaining economic life. But for maintaining economic vitality, attention must be paid to basic ecological services such as renewable and non-renewable resources, waste absorption, and stable climate conditions (Wackernagel et al.,2001). In order for accounting education to maintain the attitude toward increasing capital and nation's wealth, it needs to apply a structural change. In other words, the traditional structure of accounting toward increase capital is in a challenge with a new view of sustainable development and therefore accounting required to apply a new method (Dyball and Thomson, 2013). This approach is not easy to achieve while there is little information in the area.

Many studies are concentrating on sustainability and its integration in the accounting field (Bahae et al., 2012; Kagawa, 2007, Von der Heide and Lambertson, Hazelton and Haigh,2010). Knowledge of teachers who are educating student plus the importance of ESD and the organization perspective in the area of sustainable development, and what students need to know and learn in the area of sustainable development has been covered in previous literature. There is, however, still a lack of knowledge as to how students understand the concept of sustainable development based on their accounting education.

Therefore, this paper investigates how students see sustainable development by considering the important role of a student in developing a sustainable future.

This study is a repetition study of Sharma & Kelly's work, (2014). They tried to understand students' perceptions and understandings of, and attitudes towards, education for sustainable development at Delta Business School (DBS) in New Zealand (Sharma & Kelly, 2014). The current study, however, was built on an entirely different educational system. This study focused on the Gothenburg University in Sweden. Sweden is an early bird with respect to sustainability thinking and was ranked as the most sustainable country in the World for 2015 according to the country sustainability ranking study (Info.esg.adec-innovations.com, 2019). The Government included the discourse on sustainable development (SD) in the early 1990s. Sweden wants to be a leader in the implementation of the 2030 Agenda – both nationally and globally. The Gothenburg University is environmentally certified by ISO 14001 and Eco-Management and Audit Scheme (EMAS) since 2006 and is continuously working for improvement. The University of Gothenburg was chosen for this paper since it is one of the leading universities in Europe in education and research within sustainable development and environmental sciences and its aims to bring sustainability into all aspect of the education and into all courses as much as possible (University of Gothenburg 2008). The University of Gothenburg has a certificate Vision 2020, where the long-term objects are to facilitate continued successful development within the timeframe 2013-2020 is formulated. In the vision the university writes;

“Sustainable development is important to us; we always consider the long-term social, economic and ecological consequences and allow them to guide our operations.”

1.2. Aim of This Paper

The purpose of this paper is to investigate accounting students' overall understanding of the concept of sustainable development and how it relates to their future. Moreover, this paper contributes to investigate students' attitude towards integrating sustainable development into accounting education.

1.3. The Research Questions

- What is students' understanding of the overall concept of Sustainable development and how it relates to students' future?
- What are students' attitudes toward the integration of sustainable development into accounting education?

2 Literature Review

2.1. Definition of Sustainability

Sustainable development is a term that introduced for the first time in 1987 with the Brundtland Report, warning of the contradictory environmental consequences of globalization and economic growth. He proposed this concept to find possible solutions to the issue raised by population growth and industrialization. Despite the expansion of the importance of this concept in today's world, it does not yet become correctly understood. Sustainable development is an evasive, indeterminate concept and not an easy one to interpret (Gray, 2013).

Sustainable development turns out not to be just about adequate use of a resource, efficiency of utilization, and preservation. Instead, the term brings a strong social, economic, and cultural feature and attributes (Kuhlman and Farrington, 2010). The sustainable development is to create a balance between economic, environmental and social needs, creating a situation in which now and future generations can have prosperity. This concept is an integrated approach in order to develop

and accomplish a sustainable community by considering economic, environmental, and social issues, whilst bypassing the over-consumption of main natural resources. Sustainable development shows us how to change the ways we develop and use technology, in order to enhance and maintain our resource (Meadows et al., 1992).

Despite its importance, there is no single and complete definition for of sustainable development because it is a multifaceted concept which could be defined both explicitly and implicitly form all of its multi aspects. These definitions would be different based on the individuals understanding. The term sustainable development arises as a warning to humanity about the effect of mankind on our world, natural resource, and environment. Brundtland Commission was first defined sustainable development as:

"Sustainable development is a development that meets the needs of the present without compromising the ability of future generations to meet their own needs." (United Nations World Conference Environment and Development, 1987). This will be how this study defines sustainability though out this paper and in the survey. This definition refers to optimal resource consumption in a sustainable manner so we could be able to hand over this resource to the next generation and this paper would rely on this definition throughout this research. The sustainable (Brunold,2006). This pillar is focusing on the benefit of activities like recycling, tree planting, reducing deforestation, sustainable agriculture, finding renewable energy, reducing fossil fuel consumption and more. There are about seven billion people around the world and this number is increasing, the resources are not unlimited and if not used properly, will be eliminated. It will take a lot of years for these resources to be generated again in the natural cycle, therefore we need to learn sustainable consumption. It is important not to confuse environmental sustainability with full sustainability, including economic and social factors (Bahae et al., 2012).

Economic sustainability refers to the sustainable use of resources within a country or an organization. We as humankind usually use or consume far greater than our fair share. Economic sustainability is about our need to have a sustainable economic system that guarantees efficient allocation and fair distribution of our land resources. This pillar focuses on creating harmony between our economic growth and our ecosystem (Venkataraman,2009). It is important to keep this pillar as viable as possible through finding an effective way to use resources and to establish a method for fair distribution of the resources. Countries should feel responsible and try to find an

efficient way to use the resources to be able to benefit the operating profit of producing persistently. Organizations or countries should act responsibly and use their resources efficiently. The economic pillar looks at all things from an economic perspective. This pillar illustrates an enormous population that is relying on following a high-consumption lifestyle. Many countries and organizations are trying to find ways to balance between economic stability and economic sustainability (Holmberg & Samuelsson, 2006).

Social sustainability is about society's ability to constantly achieve wellbeing for its own members (Gray et al., 1995). The social pillar is focusing on mankind to act as a global citizen. This pillar symbolizes everything in relation to human rights: inequality in all shapes and forms, poverty social injustice and more. As a global citizen, mankind never should neglect the social disruptions which pressure the well-being of our environment and all human. Social sustainability also about controlling access and availability of resources and at the same time focusing on not compromising the quality of life. It is about providing sufficient knowledge and understanding to people in order to contribute to social sustainability and to inform them about the impact of environmental protection (Brunold,2006).

In a very straightforward approach, sustainability would mean that a resource is professionally managed in a way that its' offer to human welfare is maintained or improved for succeeding generations. However, based on the iconic status of sustainability in the language of environmental conservation, it now carries a lot of social, economic and ethical assumptions which leads to different expectations and standards (Venkataraman,2009). Our world population is not in balance, it is showing rapid growth in some developing countries while in developed countries such as the European country it shows very slow growth. Based on the fact that the objective of sustainability is to make sure that available resource levels and maintained on a per-capita basis, creating a balance between an unbalanced population of different countries require very different and complex utilization rules (Venkataraman,2009). This includes a very difficult and complex decision-making process for each country about a diagnosis of an adequate level of resource. For instance, if each member of the society uses more resource for their basic needs, then society needs to have complex decision-making process on how to save resources for future of current generation and future generation (Bahae et al., 2012)

2.2. Education for Sustainable Development

Education is fundamental requirements for understanding the sustainable development, moreover, it can shape the material reality we live in and can essentially reshape it (Blewitt and Cullingford, 2004). ESD helps individuals to address and recognize problems that are threatening our planet's sustainability (UNESCO, 2008). Sustainable development tries to involve real-world sustainability case to the education process and making individuals face with real-world sustainability issues. With this approach, a solution can be found for real issues plus individuals would learn how to deal with the challenge of sustainability when they hit the business world. This circumstance can be extended into a larger scale in society and lead the world to move toward a more sustainable approach (Gray, 2013). As Jucker (2002) demonstrate, education is important to build awareness about sustainability. It would be difficult to implement a sustainable world without a proper educational system that promotes learning and understanding. It is also very important and crucial for the student to practice and learn sustainable behavior so when in the real world they faced the economic, social or environmental responsibility, they would be able to act more legitimate and toward sustainable policy (Sharma & Kelly, 2014).

Education can be utilized to help individuals to understand the sustainable development concept and also to address the vast environmental issue which our planet is facing (UNESCO, 2004). The idea of education for sustainable development (ESD) has been introduced through the need of integrating education with the sustainable development process, this is what has been mentioned on United Nations World Conference Environment and Development, 1987. The aim is to use education to help people gain knowledge of sustainable development and to understand its values, also to motivate individuals to participate in sustainable development act. One definition of Education for Sustainable Development is an "interdisciplinary learning methodology covering the integrated social, economic, and environmental aspects of the formal and informal curriculum" (UNESCO, 1966). UNESCO has highlighted that ESD means, integrating real-world sustainable development issues into teaching and learning process. ESD aims to engage people in building a sustainable future, by making a better decision and act sustainably in any way possible (UNESCO, 2004). The decade pursues a comprehensive vision of a world in which all people have a chance and opportunity to advantages the good quality education and adapt to lifestyles required for a

sustainable future. The goals of the decade are to an emphasis on the significant role of education in developing a sustainable future, to create an opportunity for promoting sustainable development – through all type of education and training. Education for sustainability is the practice of building global and local sustainable communities (UNESCO, 2004).

Sustainable development has been a part of classrooms since a different level of education agreed to face the UN Decade of ESD. The different article looked at the relationship between sustainable development and educational system form a different perspective. For instance, Wynder, Wellner& Reinhard (2013) try to look at the impact and achievements of sustainable development in the education system. The study emphasis on the impact of the integration program on students and practitioners. They have tested, first and third-year students and professional controller's ability to evaluate three manger's performance. They aimed to see their perspective over sustainable development through their evaluation process. As a result, a third-year student was better in using their knowledge about sustainability compare to the first-year student. However, the professional controller seems to pay very low attention to the sustainable development concept in their evaluation process. The result shows that the reality of organizational priority is exceeded the universities try to apply this concept. It means unlike the universities and other organization's effort toward sustainable development, in the real world the sustainability does not have its place yet (Wynder, Wellner& Reinhard, 2013). Fisher and Bonn (2011) in their research on Australian universities found that more than half of the universities do not particularly combine sustainable development with their business programs, Naeem and Neal (2011) provide also similar research on Asia Pacific region with the same result.

Some articles try to see what the educational system can do to ease the integration process (Brady & Kennedy, 2007; Orr, 2004; Alexander,2008). Brady & Kennedy, (2007) claimed that a school curriculum can play a significant role in the sustainable development process as they are intensely intertwined within the economic political and social structures of society. For the education system to be able to develop a student with sufficient knowledge, capacity, and skills to address the main causes of unsustainability, they need to restructure the whole teacher pedagogy and curriculum (Brady & Kennedy,2007). It has been claimed that education itself, to a great extent, is responsible for the unsustainable practice. Baker (2008) suggests that the curriculum and the institutions of

schools are fundamentally important in manifesting issues such as unsustainability since they affect the way student think and in shaping their capability to act upon their belief. Orr (2004) and Nolet (2009) similarly indicating that the way individual think has a direct relation to the problem they face, therefore making any change in their mindset requires a correlated change in educational systems. In order to locate sustainable development within education, new construction of pedagogy is required. Pedagogy, interpreted in a brief sense, indicate a teacher's method and what they actually apply in classrooms (Alexander, 2008). Integrating sustainable development into the educational system cause an increase focuses on high-quality curricula and educational method in a well performative context.

Looking at sustainable development and educational system from different angles enables to understand how the educational system changes after 10 years of the United Nation's program. This is also hoped to comfort the process of creating a strong and meaningful survey in harmony with the aim of this paper.

2.3. Ethical aspect

In the survey, students were asked about sustainable development and ethical aspects of their studies. In order to investigate whether students see any ethical aspect in sustainable development, a brief explanation of the ethical aspect is presented here. Ethical context is recognized in the term of sustainability, as sustainability means taking into account not just the influence, but also moral goals and values. Sustainability cannot be scored without attention to its ethical dimensions, although the ethical aspects of sustainability often remain inevitable as manly the focus is on the technical issues and economic, social, environmental (Christensen et al., 2007). Sustainability has proven its stable power on a route where both present and future generations can have the potential for a good quality of life. Behavior promoting sustainability can be acquired and passed to future generations (Amantova-Salmane, 2015). Sustainability is about ethics because it inquires the existing people not only to reflect on the condition of the current population but also the possible condition of future inhabitants. Sustainability forces us to the consequences of our behavior different from any other concept, therefore developing ethical foundations of sustainability is

essential to applying it as a solution for the various problems being faced or shall be submitted by current and future individuals.

Ethics can be defined as a representation of nature and a definition of the good (Nicolaidis, 2006). Sustainability cannot be achieved without consideration of its ethical dimensions. A consensus is starting to emerge that educators should emphasize less on technical details and more on critical thinking and other factors, such as ethical aspects (Christensen et al., 2007). Accounting, like other professional disciplines, has been engaging with this consensus relating to the formal education of its students and the question of whether there should be any ethical aspect include in accounting education.

Langenderfer and Rockness (1989) have focused on combing the ethical aspect of accounting education and they have presented a method for integrating ethics into existing accounting courses. Salmane, L (2015) also indicated in his paper that adding an ethical aspect to an educational system may be effective in raising students' levels of moral development beyond what is expected to happen naturally. They also tested this on accounting student and indicated that these results may only endure true for a portion of accounting students, but that percentage appears to be big enough to justify the efforts.

2.4. The role of the higher educational system

Higher Education Institutions work with society in multiple ways. Universities work with the society, for instance, through educating students, distributing results of their research activities to the broader society, and providing to the development of civil society by being socially involved (Cathy C, A, 2010). In the context of sustainable development and education for sustainable development, the most important role played by universities is educating young people who understand the concept of sustainable development, and who are able to implement this concept in society through working at governmental, private businesses and educational institutions, and many other places after graduation (Djordjevic and Cotton, 2011).

Another essential role of universities toward sustainable development is presenting a forum for the contributions of specialists and experts from multiple specialties (Cathy C, A, 2010). Universities themselves are able to provide sustainable development activities through the research their faculty members conduct, and by qualifying future researchers who can contribute to society with knowledge and expertise for the next generation.

These activities should not be enclosed within university communities consisting of researchers, students, and faculty members, but must be accessible to the broader society, including citizens and several groups and associations through a different of opportunities for cooperation (Djordjevic and Cotton, 2011). Universities can further encourage international networks of researchers and students to strengthen sustainable development activities, authorizing the sharing of experiences and opinions from different social and cultural backgrounds.

By the same token, accounting is a science of numbers, it is a way in which a better understanding of the subject can be adapted. The aim of accounting education is to strengthen students' knowledge of careers such as accounting, financial management, corporate accounting, financial analysis, internal auditing and more. Accountants are able to decrease the information asymmetry in data and measure investment risks and it will help the decision maker in an organization to make a better and wiser decision which benefit them. However, when we combine sustainability with accounting, we aim to provide a more tangible understanding of what sustainability means in the real world (The purpose of Accounting Education, 2016). Sustainability is a reality of our world, try to alert all human being to understand, what we are doing is going to destroy us and if we keep doing it, we soon will be out of resource and our motherland will be destroyed. This includes all the environmental, social and economic aspect of human activities. But we need to make this concept more concrete and realizable for everyone, from shareholders in a large corporation to students in the first year of their education. We need to make sure everyone understands the importance of keeping the background image of sustainability throughout their actions and decisions making.

Gray and Collison, (1991) examine the place of accountants and their education in the UK in the sustainable development context, their finding emphasis on the cruciality of accountants in education for sustainable development. Accounting and business academics and universities need

to make sure that sustainable development is combined with their accounting and business curriculum and also try to find a way to overcome the challenge in this regard (Sharma & Kelly, 2014). Gray and Bebbington (2000) Try to highlight the need for a powerful approach to an understanding of accounting and business education in the context of sustainable development. It is crucial to set an open mindset in schools which enthusiastically supports and motivate the development of ESD. This will be achieved by creating a relative change in the school's curriculum, to be more harmonize with sustainable development (Sharma & Kelly, 2014).

However, it should be mentioned that academic literature in regard to accounting education and sustainable development are mainly critical and elaborating on the challenges which accounting face on the way towards sustainable development.

This part is a brief introduction of accounting education, aim to provide a better understanding of what accounting education is. This will be helpful when in the next parts we talk about an accounting student perspective on sustainable development.

2.5. Students perspective and the challenges of integrating accounting education with sustainability

Stephen Sperling, co-director of the Bureau for Environmental Education and Training argues” Sustainability is not just another problem which we can add to the current overcrowded curriculum, but it is a portal to a different perspective of pedagogy, curriculum, organizational change, environmental activity and so on” (Stubbs & Cocklin, 2008). The basic aim of 'Education for Sustainable Development' is to raise people who are capable to deal with environmental challenges our world is facing and subsequently create a sustainable society.

In the education world and among a different field of study, accounting is known as the least hospitable area for sustainable development. Accounting with its common financial instruments and techniques has always tried to keep its distance from social and environmental consequence (Gray and Bebbington, 1993). The barriers like not having sufficient support from professional accounting associations or not having enough knowledgeable teacher with an ability to teach

interdisciplinary knowledge was accounting reason to resist form change its strategy and discipline (Qian, 2013). Despite decades of effort in adapting the accounting education system to sustainability and in spite of fact that pedagogic will benefits from social, environmental sustainability, educational change toward sustainable development in accounting is still noticeably slow (Humphrey et al., 1996; Sundin and Wainwright, 2010).

The most important challenges toward this integration are the traditional educational structure. This refers to an old method of education in which there was no sign of sustainable development, the one that does not consider the importance of cooperating with sustainable development. In the United Nations Educational, Scientific and Cultural Organization (UNESCO) workshop report in 2006 it has been indicated that despite the importance and cruciality of sustainable development, the traditional discipline-based structuring of education is not an easy task to change. This combination creates a major challenge for universities and other institutions when implementing sustainable development in education.

It is claimed that any effort in regard accounting for sustainability will bring up the tensions exist between accounting as a practice to keep the record of wealth accumulation and its focus on pursuing a goal of having a sustainable and equitable society (Zulkifli, 2011). Current accounting education is said to be inadequate in addressing issues in regard to professionalism, also it faced its fair share of criticisms in regard of being too technically focused (Albrecht and Sack, 2000; Kelly et al., 1999; Ferguson et al., 2005). Some indicate the fact that accounting education has failed to educate a student with critical thinking skills and ability to deal with integrity, ethics, and values (Albrecht and Sack, 2000). Bebbington (1995) touch upon another aspect of accounting and he claimed that accounting education method has excessively emphasized the technical and not ethical aspects of accounting data and this method is strongly believed to be in a neutral manner.

Not having motivated and trained teachers, who are capable to inspire and motivate students, are other challenges of accounting education in integrating with sustainable development. Motivated teachers are creative to use the environment as an element for teaching various concepts to students (Cathy, 2010). Including real-world environmental problem in the student learning process, draws a bigger picture for students, which hopefully can improve their motivation. What is important and

effective is to let pupils understand the concept and value of what they learn in regard to sustainable development and showing them how and where they can apply this knowledge in a local and global scale. Another challenge facing in education for sustainable development (which is not only applied in ESD but for every aspect of education) is the difference between the teaching process at schools and what is happening at homes. A student may feel confused if what they learn in school is different from what they actually see in their home. It is very crucial to bridge the gap between what happens at home and what is taught in schools (Stubbs and Cocklin, 2008).

The way individuals think about sustainability and concern over the environmental issue is mainly rooted in their education in regards to these topics and issues. Previous research has indicated the academic coursework for students has a significant impact on their attitude and behaviors toward sustainable development (Thomas,2004). It has been discovered that student who takes a course in environmental relation subject seems to be a positive attitude to engage in more environmentally responsibilities (Smith-Sebasto, 1995). More challenges of sustainability education are about the fact that mainly researchers are a concern with an issue in regard to environmental sustainability and other pillars of sustainable development have been significantly ignored throughout the literature.

The challenges mentioned above are indicating the fact that the process of combining education and sustainable development is not an easy process especially in accounting education. This information hopes to ease the process of understanding and capturing student attitude toward this integration. Any of the challenges mentioned above could shape different attitude and behavior for students.

Chulian (2011) believes that teaching sustainable development in accounting and business, aim to lead students to develop an understanding to eliminate the gap in business practices and traditional accounting. Accounting and business academics need the integration between ESD and accounting curriculum. Studies which focused on student perspective on ESD mainly showing a positive attitude of a student toward sustainable development (Kagawa, 2007; Von der Heidt and Lamberton, 2011). Von der Heidt and Lamberton's (2011) in their sustainable development survey focused on students from Southern Cross University in Australia and found that students were satisfied with the sustainability units being offered in their business curriculum.

Thomas (2004) talked about the importance of engaging student and graduate to develop literacy in sustainable development at any level and part of their education. Kagawa (2007) in a similar context, indicate the importance of having literacy in sustainable development for professional graduates. It is important for students to be able to distinguish and understand various interpretations of sustainable development which exists in the real world. Students must be able to develop a new way of thinking in order to capture the effects of sustainable development (Stubbs and Cocklin, 2008). The student who study in different courses, each has a significant role in future society. Therefore, all graduates need to obtain sufficient knowledge about sustainable development and the issues surrounding it (Jucker, 2002).

Nicolaides (2006) noted education providers are committed to providing students with sufficient level of programs about sustainable development, which encourage students to feel responsible towards society and its surrounding problems. Education facilitates the knowledge and ambition for student and brings awareness toward sustainable development (Cullingford and Blewitt, 2004). The educational method combines with sustainable development purposes is expected to develop broad-minded graduates with a capacity for critical and independent thought and action. These skills and values make students ready for their future leadership roles (Kagawa, 2007). Kagawa's (2007) research on students' understanding and attitude of sustainable development at the University of Plymouth found that over 90 percent of student show a positive reaction to ESD, however, this result may be questionable because his research also found that when business students were asked to explain the meaning of sustainable development, respondents were not able to give an accurate answer. Around 20 percent of respondents who claimed to have a complete awareness of sustainable development was unable to provide an appropriate definition for it. Botes, Low and Chapman (2014) placed their focus on sustainability as the objective of their paper. They investigated the adequacy of sustainability education in NZ universities. They claim that most universities globally and in especially in New Zealand are taking step toward including the sustainability in their education system, however, this integration in accounting education required much more effort. In their paper, they indicate that lecturers and students mainly show a positive attitude toward accountants' role in sustainability reporting based on the increasing interest and focus being placed on this type of reporting by businesses. However, they articulated some concerns in regard to the current state of sustainability reporting and the fact that they believe the

university teaching approaches to sustainability should change. Their findings suggest that accounting educators should be more involved in sustainability education.

Azapagic et al. (2005) have done a multi-county investigation of engineering students and examined their attitudes toward sustainability. Their findings indicated that the majority of students who have done the survey show positive attitudes toward sustainability and students also show that this is a very important concept for them. Yet interestingly the result shows that the students are suffering from a lack of knowledge and understanding of sustainability concepts. The paper suggested that much more effort and work was required in educating students about sustainability and sustainable development. Azapagic et al. (2005) also signified that students know about the environmental aspect of sustainability are better and more complete than their understanding of the social and economic aspects. Graduates also report their positive attitude toward sustainability and they are agreed on the important role of accounting sustainability reporting. Nonetheless, a significant number of graduates believe their study of sustainability was not adequate, the emphasis on the need to make a better integration between sustainability education and university accounting courses. (Gray and Collison, 1991). Some believe that ESD enables universities to promote a broader learning process to accounting students, rather than limiting their understanding (Lawrence et al., 2009). Hazelton and Haigh (2010) indicate that some students thought sustainable development courses only provide general knowledge and overview of sustainable development, without teaching student how to deal and use it practically. Students also requested more practical content for their sustainable development courses, with real examples. Kagawa (2007, p. 335) suggests that students have an overall pro-sustainability attitude towards sustainability, but it is the universities role to provide opportunities where students could participate engage in real-world sustainability issues.

Most of the research demonstrating that students show a positive attitude towards ESD. However, they mainly commented on the lack of depth in the ESD content, Student believes that sustainability is just being briefly touched in courses and it does not follow any particular pattern which is very misleading. Students also indicate that some of the ESD s' content are kept repeating in different courses without adding any extra knowledge to a student.

However, some studies like (Hazelton and Haigh, 2010; MacVaugh and Norton, 2012), claiming that student generally shows more positive reaction towards traditional and mainly mandatory accounting courses, such as financial accounting and management accounting. They believe these courses are more relevant and related to their future jobs. This indicates students' not positive attitude toward sustainable development when it comes to integrating the accounting education and sustainability. MacVaugh and Norton (2012) argue that business or management students enter university aiming to obtain the necessary education to provide and guarantee professional skills and knowledge which they need for their future careers. Integrating sustainability into their courses is seems far from their main concentration. Research on around 200 accounting graduates in New Zealand found that students do not have an affirmative approach to changing the accounting curriculum. Students give less attention and importance to social and environmental perspectives in the accounting curriculum (MacVaugh and Norton, 2012).

Various articles have been written about sustainability and its integration in the accounting field, so many different perspectives have been taken into consideration (Bahae et al., 2012; Kagawa, 2007, Von der Heidt and Lamberton, Hazelton and Haigh,2010). Some literature tries to consider teacher perspective in understanding of the role of education, others focused on the importance of ESD and the organization's perspective in the area of sustainable development, some literature expressing what students need to know and learn in the area of sustainable development; however, there are few literatures which analyze what actually students know about sustainable development (Bahae et al., 2012; Kagawa, 2007;). More importantly, there is a shortage in literature which targeted the result of years of efforts on educating accounting students, to capture what actually they understand about the importance of sustainable development and this paper aim to cover this gap as much as possible.

3 Methodology

This chapter presents the methodology of the thesis involving information about Research Method, Sample and survey instrument.

3.1. Research Method

The fundamental of the survey method can be explained as, asking questions from individuals about a topic or topics and then describing and elaborating their responses (Sharma & Kelly, 2014). In various studies survey method is used in order to reflect the attitude of people, to test different concepts, to establish the level of satisfaction, or to set of other purposes. This analysis builds on an online survey sent out to accounting students of Gothenburg University.

One way to address these research questions is through a survey. Accounting students were asked about their attitude and understanding of integrating sustainable development and accounting educations.

Survey questions were developed using one particular survey about sustainability and sustainable development which focused on understanding and attitude of students (Sharma & Kelly, 2014). This survey is designed to extract information concerning students' understanding and opinions about integrating sustainable development with education more specifically with accounting education.

There are some known advantages and disadvantages associated with survey data collection methods. The purpose of a survey is to gather a large size of information in a short period of time. The Advantages is that in a survey, members of the sample group can remain anonymous. It is Considerably cheaper than most of the other primary data collection methods. With a survey, there is a possibility of generating a large amount of data. Other disadvantages of the survey are, difficulty to ensure the greater depth for the research, that means it is not easy to ask descriptive questions in the survey. Since it will be time-consuming for the respondent to answer the

explanatory questions, and mainly people avoid providing a sufficient response to this sort of questions, therefore the result may not be as sufficient and satisfying as other methods.

3.2. Sample

In this part, a brief description of the one sample group of respondents is provided. For the aim of this research, the accounting students at Gothenburg University were examined, since this paper is concentrating on the integration of accounting education with sustainable development.

Questionnaires were distributed to students through email . The questions were expected to be answered in maximum 10 minutes (Sharma & Kelly, 2014). The intention was to cover as many students as possible. Around 130 email address has been prepared include 43 undergraduate students and 87 Master students. Out of these 130 surveys which have been sent, Total of 40 students completing the questionnaire 32 Form master and 8 form bachelor level. Respondents received no extra credit for doing so and respondents remained anonymous.

Given that the number of respondents at the undergraduate level was about 8 out of 40 people, the finding is only including the master student responses.

Using a survey approach is expected to be the best way to collect and analyze data in order to comprehend students' attitudes and understanding of the integration of accounting education and sustainability. Questions in the surveys consisted of both closed and open questions. Some questions used a scale ranging from 1 to 6. The use of scale in the questionnaire is expected to help through the data analysis. The questions asked were developed form the literature” Students' attitude of education for sustainable development in the accounting and business curriculum at a business school in New Zealand “by Sharma & Kelly in 2014.

3.3. Survey Description

This section introduces the process of survey construction.

The survey builds on Sharma and Kelly's work in 2014. Their work aimed to explore students' attitude and understandings of, and attitudes towards, education for sustainable development (ESD) at Delta Business School (DBS) in New Zealand. The survey tool has been adjusted to add focus to the area of accounting education. In this way, the two main objectives of this research were covered. Firstly, it was emphasized that the focus of this research is on accounting science, secondly, these questions have been taken into the Swedish context by looking at a case university that is focused on sustainability in a country that can be perceived to be one of the leading in suitability focus and education.

To enhance respondents understanding the survey was introduced with a personalized message that provided a brief explanation about the content of the survey, to explain to the respondents what this survey is about. Moreover, to ensure the respondents that the data will only be used for this surveys' purposes and will be used anonymously.

The instrument was comprised of 8 questions which asked about the respondent's understanding and attitude about integrating sustainable development and accounting education. The survey concludes 3 parts. Responses were provided using multiple questions, one open question and six-point Likert-type scale from (1) Strongly agree to (5) Strongly Disagree. One more option of "Don't know" was also provided for those who do not understand the question or by any reason do not want to respond to the question.

In **Part one** the survey includes five questions which asked for general information: first, the survey asked about the respondents' Gender, this is to find out how many respondents are Female or Male. In the first part also, students were asked to choose the best definition of sustainable development based on their own understanding. The answer was including the Brundtland's definition as one option which is considered the most complete and comprehensive answer and if students choose this option, it indicates that they have sufficient knowledge about the definition of sustainable development. Other 3 answers were definitions of Environmental Sustainability, Economic sustainability, Social sustainability. This would show if the student confuses the meaning of sustainable development with any of its three pillars. Understanding the distinction between the three 'pillars' of sustainability is very sophisticated and conceptual. All of these

definitions have been provided in the body of this paper. Students' responses to the first question would help to see if student have sufficient knowledge about sustainable development when they showing their attitude toward integrating sustainable development and accounting education. Moreover, students were asked to indicate how well do they think they understand the concept of sustainability. Students were asked to rate their understanding from "Understand a lot "being the highest till "I do not understand at all "the lowest level of knowledge.

Part two was aimed to answer the first research question which was "What are students 'understanding of the overall concept of Sustainable development and how it relates to students' future? The importance of education for sustainable development has been discussed in detail in the literature part which is aimed to provide a comprehensive and background knowledge to answer this research question. Moreover, students' attitude toward sustainable development has been reviewed along with the review of various articles' findings.

Question four is asking students to show their agreement or disagreement with the presented statements. The first statement was asking students to indicate their opinion about business ethics and if they believe, learning about business ethics are useful for their future work life. Research indicates that university education has a positive effect on accounting students 'ethical standards, their cognitive moral capability and their prescriptive reasoning (Thomas, 2012).

Sustainable development can be understood by raising scientific questions about cause or effect or ethical questions, questions about what is the "right" thing to do. Considering the importance of ethics in accounting education and sustainable development, the survey wants to know students respond to the above question.

The next key question asked about integrating sustainable development with accounting education and whether they perceive this integration as a help for their future carrier. This question is trying to investigate if accounting students believe having knowledge about sustainable development and also incorporating it with accounting education would have a positive impact on their future role. In literature, the challenge of incorporating sustainable development with accounting education has been mentioned and discussed. Moreover, it has been explained that based on different works

of literature, accounting student impersonates different opinion and attitude toward this integration when it comes to their future work life.

Part three was aimed to answer the second research question which was “What are students ‘attitudes toward the integration of sustainable development into accounting education?’”. Here is what accounting student perceive about integrating accounting with sustainable development from their accounting courses in school. This part of questioner aims to see how student reflects upon a combination of accounting courses with sustainable development and what they think about the Gothenburg University’s performance in advancing this integration.

Earlier the role of higher education in sustainable development has been pointed out in the literature part This section contains 4 sets of questions. Here survey starts with asking students about how the concept of sustainable development has been covered in their programs. This question is mainly focusing on business and accounting courses offered at the School. Here we specifically concentrating on the courses with sustainable development contents. Some of the courses presented in business and accounting are compulsory. Generally, these courses integrate sustainable materials into existing traditional material. As it has been mentioned in the literature review, traditional material is referring to an old method of education in which there was no sign of sustainable development, the one that does not consider the importance of cooperating with sustainable development. However, some of the courses are optional, among these types of courses, there are some with a primary focus on sustainable development.

The survey includes one open question which provides an opportunity for students to talk about what they are willing to know more in regards to different aspects of sustainable development. Here student can present their suggestion and interest. Student’s response to this question could provide useful information for the university to indicate what is that student wants to have from this process also this could highlight the weakness and strength in universities performance.

Other key questions in the survey asked students if they believe their knowledge of sustainability has been improved after taking accounting courses involving sustainable development content. The next question, however, tried to look at the integration of accounting education and sustainable

development from an accounting perspective. Responds to the First question is showing if students believe what they have been learning throughout their education in regard to sustainable development improved their overall knowledge about sustainability. The response to the second question tries to figure out if students' attitude toward accounting education has changed after taking the accounting courses with sustainable development content. The literature part had explained the education for sustainable development and also tried to provide samples of sustainable development in the educational system. These two points of view were intended to provide a basis for the above questions in the questionnaire.

4 Results and discussion

Survey results were organized in a way to be able to address these 2 key questions:

- What is the students' understanding of the overall concept of Sustainable development and how it relates to students' future?
- What are the students' attitudes toward the integration of sustainable development into accounting education?

This section presents the result of the study in three subsections. Subsection 1 presents evidence of students' general knowledge of sustainability. Subsection 2 outlines students understanding of the overall concept of Sustainable development and how it relates to students' future

Subsection 3 provides evidence of students 'attitude toward the integration of sustainable development into accounting education.

4.1. General information

As noted in the previous section and shown in table 1, there were 32 responses among 130 students surveyed at the master level. The percentages of male and female students were 40 and 60 percent and respectively, all of the students did state their gender. This means in general 16 of respondent were male and 24 were female.

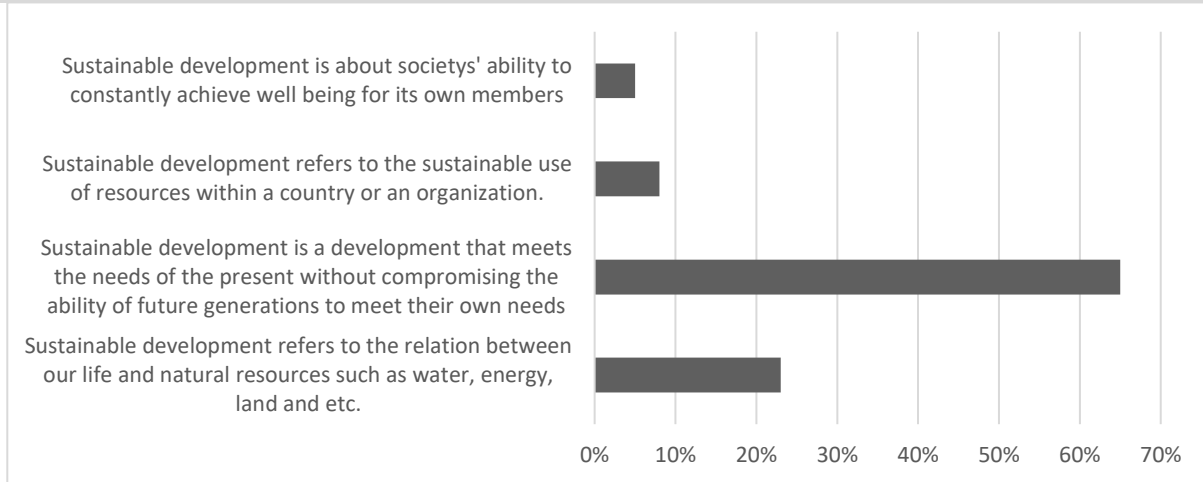
The majority of students (72%) surveyed was form European Countries and about 28% percent of respondent were form Non-Eu countries.

Table 1: General Information

Male	Female	EU Citizen	NON-EU Citizen	Master	Bachelor
40%	60%	70%	28%	80%	20%

The first part of the survey includes 2 key questions. The first question was; which of the following definition is presenting the best-meaning of sustainable development based on your understanding of sustainable development?

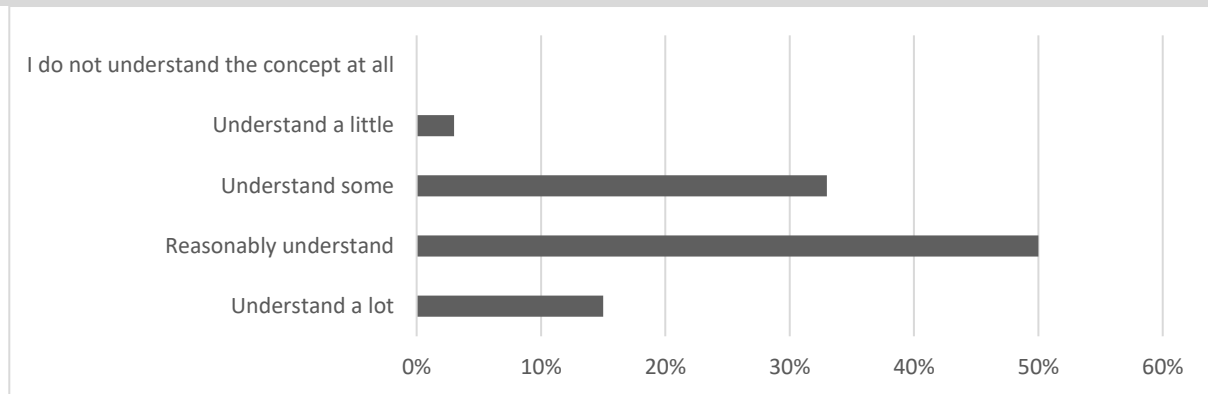
Table 2: Which of the following definition is presenting the best-meaning of sustainable development based on your understanding of sustainable development?



The majority of students understand sustainable development along the lines of the 1987 Brundtland definition. The rest of the students were confusing sustainable development definitions with the definition of its' three pillars. There were no strong gender differences in the response. Since it has been mentioned this paper is the repetition study of Sharma and Kelly (2014). This paper tried to stay as close as possible to their framework however in regards to this question Sharma and Kelly have presented an open question. In the context of this paper and considering the possibility that students might not spend enough time and effort to answer an open question this paper decided to present this question this way.

This paper moreover is aware of the bias of this question since one of the answers is the most comprehensive one, therefore, most of the students would choose it and this might not be an accurate indication for students' sufficient knowledge over sustainable development. The majority of students might have answered this question because of demand bias. Students apparently seem to understand that Brundtland definition is the most comprehensive answer among all. This may question the conclusion that students have sufficient knowledge over sustainable development.

Table 3: How well do you think you understand the concept of sustainability?



The second question was; how well do you think you understand the concept of sustainability? Half of the respondents indicated that they have a reasonable understanding of sustainable development. 15 percent of students claim they know a great deal about sustainability and 32 percent indicate that they understand some about sustainable development. All respondents believed they have at least a little knowledge about sustainable development, therefore, no one chooses the last option which was “I don’t understand the concept at all”.

The purpose of the two above questions is related to what Venkataraman mentioned in his paper that, student understanding of sustainable development is related to the importance of Education for Sustainable Development (Venkataraman, 2009). Education for Sustainable Development means adopting a more comprehensive approach to education with the aim of creating a better world for both current and future generations of all living things on the Earth (Kagawa, 2007). By equipping young people with knowledge of sustainable development in addition to their other knowledge, they can excel at living lives which not only further humanity, but that care for and respect our planet’s resources too (Sharma & Kelly, 2014). Based on what has been discussed above it is important for students to be able to distinguish and understand various interpretations of sustainable development which exists in the real world. The analysis shows that accounting students at Gothenburg University have a high level of knowledge about sustainable development. Students have given an honest self-assessment of their knowledge about sustainability; they demonstrated an accurate understanding of the concept of sustainability.

4.2. Students understanding of the overall concept of Sustainable development and how it relates to students' future

Table 4: How would you perceive the importance of sustainable development for?

Students' Feedback	You Personally	You as an Accountant / Controller	The Society World-Wide	Your Country	Future Generations
Very important	25%	18%	65%	60%	68%
Important	68%	15%	29%	40%	30%
Possibly important	7%	65%	3%	0%	2%
not important	0%	2%	3%	0%	0%

The second part includes 2 key questions. The first question was, how would you perceive the importance of sustainable development. Based on the result the majority of students thought that sustainable development was more important for future generations than for themselves, personally. Most of them indicate that sustainable development is very important for their country and the social world-wide, however when they were asked how would they perceive the importance of sustainable development for themselves as an Accountant /Controller, the majority of student chosen the option “Possibly important” and about 15% of students believed sustainable development is “important” for accountant /controller.

The finding of the survey indicated that most students thought that sustainable development was more important for future generations than for them personally. This could, of course, be interpreted in different ways. One of the explanations, based on the analysis of the similar survey (Sharma & Kelly, 2014), is that students believed during their lifetime the environment would still not be degraded so much as to affect their livelihoods but that the next and the future generations would be affected much more (Sharma & Kelly, 2014). This clarification provides a useful indication as to how to engage accounting students in the subject of sustainable development more efficiently, if they can anticipate and comprehend the benefits or hindrance for future generations of what they are doing today, it may be possible to encourage their interest in learning about sustainability while studying and to cultivate their commitment to practicing sustainable accounting later as professionals.

Moreover, the student's response showed they believe sustainable development is possibly important for a controller or accountant. This indicates students' not positive attitude toward sustainable development when it comes to their future work life as an accountant or controller. Students enter university expecting their educators to induct them into the professional skills and knowledge that lead to career success, not focus their study time on global problems, social responsibility, and intergenerational concerns (McVaugh and Norton, 2012). The result of this question indicates that accounting student believes that sustainability has not yet found its place in the accounting profession, even in the country like Sweden which was ranked as the Most Sustainable Country in the World for 2015 according to the Country Sustainability Ranking study (Info.esg.adec-innovations.com, 2019). This result is the support of what Wynder, Wellner & Reinhard (2013) indicated on their study, that whether the discourse of sustainability is manifest in a greater emphasis on environmental performance by students and practitioners. In their analysis, they indicate that experienced accounting controllers placed less emphasis on environmental performance than did third-year accounting students. This suggests that what has been taught in universities regarding the strategic importance of sustainable development performance exceeds the reality of organizational priorities, at least for now.

Table 5: To what extent do you agree or disagree with the following statements

	What I learned about business ethics is useful for my future work life.	Incorporating sustainable development with accounting, help me learn how I can have a positive impact on the world around me.	Integrating sustainable development with accounting education help for my future career.
Strongly Agree	8%	8%	5%
Agree	53%	73%	23%
No opinion one way or another	11%	10%	10%
Don't know	5%	0%	7%
Disagree	23%	7%	50%
Strongly Disagree	0%	2%	5%

The second question of part 2 was asking students to what extent do you agree or disagree with the presented statements. This part includes 3 statements. The first statement was what I learned about business ethics is useful for my future work life. Majority of students indicate their agreement with the presented statement, however, about 8 of master-student show their disagreement.

The second statement was; Incorporating Sustainable development with accounting, help me learn how I can have a positive impact on the world around me. About 21 of students indicate their agreements with the above statement.

The last statement of this part was asking students to respond to the following statements: Integrating sustainable development with accounting education help for my future career. This question was one of the key questions of the survey and students responded with surprising answers. About 22.5 percent of all the respondents agreed with the above statement but rather a large percentage of them include 50 percent of all students believed Integrating sustainable development with accounting education could not help their future career.

About half of the students agreed on the positive impact of business ethics on themselves and on their future work life. However, when they have been asked about integrating sustainable development with accounting education and if they believe this could help for their future career, the same percentage of students indicate their disagreement. Students respond to this part is confirming their answer to question 3, which was raised in the same subsection.

In the education system and in regards to incorporating education and sustainable development, it has been believed that integrating sustainable development will enhance the development of graduates to become broad-minded thinkers with a capacity for independent and critical thought (Sharma & Kelly, 2014). These skills are hoping to prepare students for future leadership roles. This is notable because in this particular context we can see that the majority of accounting students in Gothenburg University perceived business ethics as useful elements for their future work life, but they deny any positive relation between, combing sustainable development with accounting education and their future work life. Based on this survey's finding, however, students showed an interest in considering and incorporating ethical aspect to their education, but they showed no

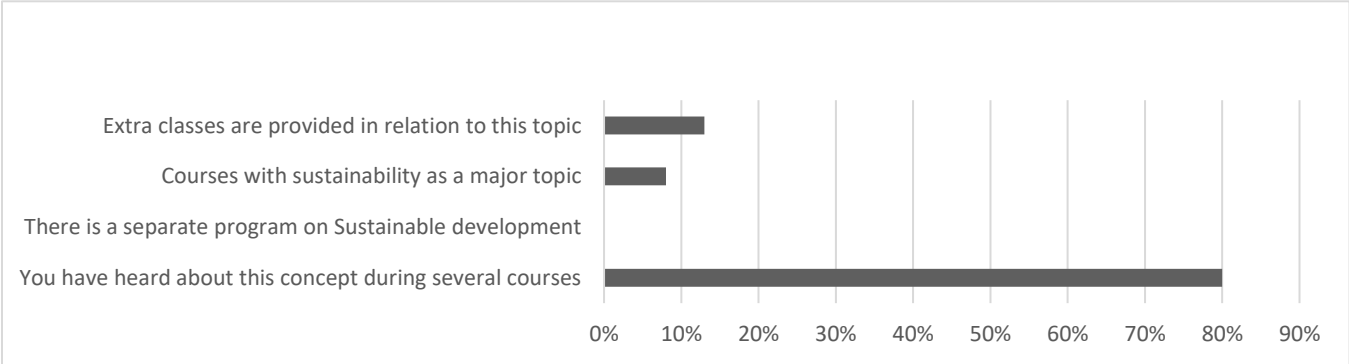
positive attitude toward integrating accounting education with sustainable development. What this study suggests is that while incorporating an ethical aspect to education is very important, accounting students don't think it should be part of accounting education.

This might be because students do not perceive any ethical aspect in sustainable development when it comes to accounting education or perhaps sustainable development is often perceived by accounting students as theoretical science, whilst their interest lies in other practical aspects (Kelly, Davey, and Haigh, 1999). This is particularly true for accounting students, who mainly study mathematics and physics during their education, normally with little exposure to 'soft' subjects such as sociology and philosophy (Armstrong, 1993).

4.3. Students 'attitude toward the integration of sustainable development into accounting education

Part three was involved in four questions. The first question asked students how is the concept of sustainable development covered in their university program.

Table 6: How is the concept of sustainable development covered in your university?



In terms of how the concept of sustainable development is incorporated into the university program, students' answers show that they have heard about this concept during several courses. As 80 percent of students indicate they have heard about this concept during several courses. 12.5

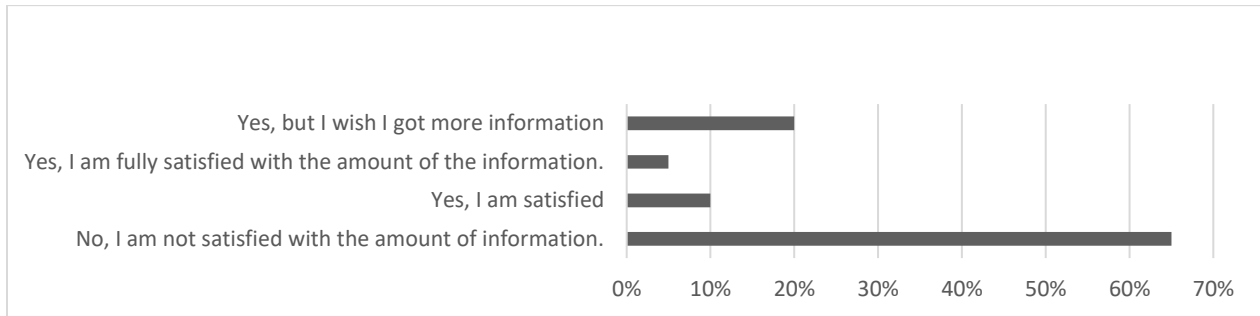
percent of students claim that extra classes were provided to them in relation to sustainable development. Only 3 remaining master students indicate there are courses with sustainability as a major topic.

In order to verify the answers of the students forming the sample and to see how the university treats the concept of sustainability, the accounting program has been analyzed in closer details. Particularly among all courses offered at the accounting program, only 3 has been including a sustainability topic and only 1 was with sustainability as a major field. Gothenburg University has been providing the course with accounting sustainability as a major topic but this course is optional for students to take. These programs have been analyzed along with checking the availability of the information about eventual seminars and extra courses. The results show that there were no existing seminars or extra classes provided for students as well.

On the one hand, this highlights the point that in Gothenburg University the courses about sustainable development are only offered in the optional form and there are no mandatory separate courses which are mainly focusing on this topic. On the other hand, since the full description of courses is presented to all student before they choose their courses, the majority of students chosen the traditional accounting courses rather than courses with sustainable development context. The result extends Hazetlon and Haigh's (2010) and Mac Vaugh's (2012) findings by showing that even in the context of sustainable development students prefer mandatory over voluntary, such as financial accounting and management accounting. They indicate that student believes these courses are more relevant and related to their future jobs.

This again is an emphasis on the fact that students' have no positive attitude toward sustainable development when it comes to integrating the accounting education and sustainability. Moreover, combining sustainable development with the traditional accounting courses usually means Non-expert lectures with not enough knowledge of sustainability which again provides an insufficient and dissatisfying course for students.

Table 7: Does the sustainable development covered in your courses satisfy your expectations?



The next question aims to investigate if students believe that the sustainable development covered in their courses satisfy their expectations. Most of the students expressed their dissatisfaction with the amount of information that they received during their education, while about 20 percent of students answered that they would prefer to receive more information on this topic. Around 10 percent of students expressed their satisfaction with the coverage of sustainable development in their courses.

The points students have made regarding their satisfaction with the content of sustainable development courses demonstrating that students at Gothenburg University understood and had a positive attitude towards sustainable development. However, the majority of the student show their dissatisfaction with the coverage of sustainability in their courses. This is probably based on the fact that they have sustainability in their almost all subject. The results from this question confirm the results of the previous question which indicate students do not like the combination of sustainability in accounting as presented at the university.

Finding suggests that maybe instead of combing sustainable development in all courses, Gothenburg University can present some disintegrated courses along with other courses with a focus on the detail on sustainable development. This may help to provide a better range of information about the topic and provide better encouragement for the students to comprehend. Because as far as student's response indicates, they have sustainability in their almost all subject and it made them resist it.

Also, again this is repetition study and the question is as close as what Sharma and Kelly had on their paper. However, for the methodological consistency, this needs to be highlighted that the reason students answer this way might be because these answers highlight satisfaction as overall responsibility for the student. Therefore, students' answers might be based on demand bias.

Question number 7 was an open question asking, what aspects of sustainable development would student like to know more about? About 9 master students answered the above question and their response was very fascinating. Here are some of their response.

Some student indicates they would like to know more about sustainable development in "*GRI standards*" and "*Shared Value Creation*".

One of the respondents mentioned "*It feels like many teachers do not believe in sustainability themselves when they talk about it, but only include it because they have to...*"

As Cathy, (2010) mentioned in his paper, not having motivated and trained teachers, who are capable to inspire and motivate students, are one of the challenges of accounting education in integrating with sustainable development.

Others indicate that "*I do not Understand the relation between sustainable development and accounting*" and "*There is more detail in sustainable development that we still do not know about*" and "*I believe sustainability is still not so welcoming in accounting education, I would like to know more it*"

This is what Bebington indicated in his paper in 1995. The fact that accounting education method has excessively emphasized the technical and not ethical aspects of accounting data, this is a reason student could not feel any connection between accounting courses and sustainable development. Moreover, Zulkifli (2011) point that incorporating accounting for sustainability will bring up the pressures for students since accounting is a practice to keep the record of wealth accumulation and sustainability is an ethical concept far from numerical characteristic of accounting.

Other responded that "*Knowing about sustainability is not helpful for our future career, it is not a plus in any company*" and "*Sustainability has not yet found its place in accounting science*"

This again emphasis on MacVaugh and Norton (2012) argue that business and accounting students begin university aiming to achieve the necessary education to provide and guarantee professional skills which are required for their future careers. Integrating sustainability into their courses is appears to be from their principal concentration.

Table 8: To what extent do you agree or disagree with the following statements?

	My knowledge of sustainability has been improved after taking accounting courses involving sustainable development content	My attitude toward accounting education has been improved after taking the accounting courses with sustainable development content	Sustainable development Is an important and useful concept but I am not happy with the method used in my university in order to integrate accounting with sustainable development.
Strongly Agree	7%	3%	3%
Agree	60%	18%	62%
No opinion one way or another	10%	22%	10%
Don't know	5%	5%	8%
Disagree	18%	50%	14%
Strongly Disagree	0%	2%	3%

The last question was also asked to what extent students agrees or disagree with the presented statements? The first statement was; My knowledge of sustainability has been improved after taking accounting courses involving sustainable development content. The rating shows a majority of students thought their knowledge of sustainable development had improved, whereas around 18 % of the students believed their knowledge of sustainable development did not improve.

Furthermore, among 40 students who took the survey, indicate their attitude toward accounting education has NOT been improved after taking the accounting courses with sustainable development content. However, about 18 percent of total students showed their agreement with about the above statement. Mainly master student indicates their disagreement.

In the last statement of the last question of the survey, students were asked to show the level of their agreement or disagreement about the following statement: Sustainable development Is an important and useful concept but I am not happy with the method used in my university in order to integrate accounting with sustainable development.

Table 8 shows that most respondents stated their agreement with the above statement (47 percent master student). About 20 percent of the rest of the answers were a compilation of the rest of the options.

The role of universities in sustainable development is to present new insights to crucial societal challenges, to educate global citizens for sustainable development, and to overcome the environmental and social footprints of operations. Students respond to this question and finding of the open question (question 7) and other questions, suggest that the Gothenburg University has come a long way in introducing sustainable development concept since students understand concept very well, however, they are far from the final goal of creating sustainable leaders because student actually are confused about how they can use this knowledge in their future work life.

The purpose of combing sustainable development with education is to present sufficient knowledge to students about their world and to make sure they understand the value of their surrounding world by understanding the value of sustainable development (MacVaugh and Norton, 2012). When sustainable development become integrated with education and more specifically accounting education, this integration, on the one hand, could provide a better understanding of sustainable development with the help of accounting and on the other hand, could present a more comprehensive understanding of accounting with the help of sustainable development. This incorporation could help students to look at accounting form different perspective, different from the old traditional way. However, the result was noticeable because in this particular context this survey has a slightly different outcome which suggests there might be something else it to it.

I personally have become acquainted with the concept of sustainability during my study at Gothenburg University and having the sustainability and accounting concept next to each other

drew my attention. I decided to know more about sustainability accounting, so I took Accounting and Sustainability as my optional course. So, based on my own experience as a participant of an accounting course at Gothenburg University I can claim that My attitude toward accounting education has been improved after taking the accounting courses with sustainable development content. But unlike me, the majority of student did not believe that this integration changed their attitudes toward accounting education.

What can be drawn from the response of this question is accounting students of Gothenburg University do not show a positive attitude toward the corporation of accounting education and sustainable development for a variety of reasons. One of these reasons is the way the university has been presenting this integration throughout every single course. This brings a lack of depth in the sustainable development content in the courses, a volume of similar information will be repeated in various courses. Another reason is the fact that student does not believe knowing about sustainable development is useful for their future career.

Looking at the result of all tables indicate that the majority of accounting students at Gothenburg University displayed a good understanding of the sustainable development term. As they respond to several questions indicates, they don't know how to use this knowledge in their future work life. When it comes to their future career accounting students' response was aligned with a possible doubt and ambiguity, showing that they trust and feel safer with the old and traditional accounting method. Moreover, students think that sustainable development is important for them personally. Hence, it should not be difficult to capture their imagination by teaching sustainable development so as to make it as relevant to accounting as possible. This may be done through more concentrated sustainability courses with lectures and tutorials with comprehensive knowledge, followed by practical examples and case studies integrated into the core modules of the accounting curriculum. Another finding of the survey is that all students consider that sustainable development is more important for future generations than for them personally. Therefore, it is essential that students can understand and envision future advantages or consequence of their activities today. This may stimulate their curiosity in learning about sustainability while studying and urge them to practice sustainability in accounting in their future professional life.

5 Concluding Discussion

The purpose of this paper is to investigate accounting students' overall understanding of the concept of sustainable development and how it relates to their future. Moreover, this paper contributes to investigate students' Attitude towards integrating sustainable development into accounting education.

This study is a repetition study of Sharma & Kelly (2014). The focus of this study was on Gothenburg University in Sweden. On the one hand, since the United Nations Conference on Environment and Development in 1992, Sweden has been focusing actively on sustainability issues at the local, national, and international level. Sweden is one of the most advanced countries in terms of sustainability, which is trying to apply this goal in various dimensions in a very serious and decisive manner (Info.esg.adec-innovations.com, 2019). Gothenburg University, on the other hand, has sustainability in its vision and mission. The University of Gothenburg has very high contributions to sustainable development and aims to become a European leader in the area. Gothenburg University is actively working to increase student participation in sustainable development. This includes a wide range of activity and programs related to environment and sustainable development.

However, some of the results in this research are different from the Sharma & Kelly's result and that is because there has been a change in the educational system in general in last 5 years and also based on the fact that this paper is focusing on a totally different context than Sharma & Kelly.

The opinions of 40 accounting students of Gothenburg University in Sweden were collected by survey. The survey indicates that students see sustainable development as an important topic in various aspect of their life however when it comes to accounting education and their future work life it is like a student cannot see any positive relationship. Accounting student's shown doubt and ambiguity of how current accounting education helps them to understand and relate to sustainable development issues. This result stress on the fact that students are aware of the sustainability and have a positive attitude toward it but they don't feel positive about the integration of accounting with sustainable development.

This is because the relationship between accounting and sustainable development for students is vague and unclear. Although the majority of students are able to identify the best definition for sustainable development concept, they don't see the relationship between accounting education and sustainable development.

This doubt could be because of the lack of hospitality of accounting education when it comes to integrating with and sustainable development, especially in companies and in demand of the market. The results of this paper resemble Sharma & Kelly's (2014) results. However, it is surprising to see such resentment toward integration accounting education and sustainable development in the university such as Gothenburg University, which is known to be one of the preeminent universities in sustainability and works actively and systematically within the environmental and sustainability field and in the country like Sweden. This is alarming that, even though the lack of acceptance of sustainability in accounting education has been raised frequently in various articles (Humphrey et al., 1996; Sundin and Wainwright, 2010; Gray and Bebbington, 1993; Qian, 2013), still, even in the countries such as Sweden, this issue remains unsolved.

This paper suggests that maybe the Gothenburg university has not come as long as it is expected from it, in providing a proper background for sustainable development and maybe such universities with its admirable background of implementing sustainability, need to apply some basic change into its approach to sustainability. Gothenburg University is aimed to bring sustainability to all the courses but seems that the student does not appreciate having it in all aspect of their education, maybe they want to have some disintegration in some point of their study.

This paper has useful implications in education for sustainable development and it may benefit providers of business education to learn how accounting students comprehend sustainable development and thereby bring about modifications to improve education for sustainable development within business curricula. It is expected that education for sustainable development today will support future managers to improve future business practices. However, investigating students' understanding and attitude toward education for sustainable development remains a considerably neglected area in higher education. This paper is concentrated on a single university setting in Sweden. Future studies in other universities would be welcome. Such studies could investigate various means of improving education for sustainable development. There is no

universal formula and method for education for sustainable development. It is essential to design a curriculum change processes within which local students' understandings of, and aspirations for, sustainable development are addressed in a manner adequate to local faculty. In a rapidly changing and uncertain world, higher education requires to play a role in helping students to become active accountable citizens. Today's college students are tomorrow's leaders. By raising awareness of sustainability and by presenting opportunities to engage in it, universities can be influential change causes with far-reaching impact.

6 Reference

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7 Appendix

Brief information

This questioner is about students' attitude toward integration of accounting education and sustainable development. This is aim to see students' perception toward adding sustainable development content to the accounting courses. The survey contains 3 part and a total of 8 questions. These data will only be used for this survey purposes and will be used anonymously.

Part 1

General Questions

Gender

Mark only one oval.

- Female
 Male
 Prefer not to say

EU Citizen?

Mark only one oval.

- Yes
 No

Education

Mark only one oval.

- Bachelor
 Master

1- Which of following definition is presenting the best-meaning of sustainable development based on your understanding of sustainable development?

Mark only one oval.

- Sustainable development is a development that meets the needs of the present without compromising the ability of future generations to meet their own needs
- Sustainable development refers to the relation between our life and natural resources such as water, energy, land and etc.
- Sustainable development refers to the sustainable use of resources within a country or an organization.
- Sustainable development is about society's ability to constantly achieve well being for its own members

2- How well do you think you understand the concept of sustainability?

Mark only one oval.

- Understand a lot
- Reasonably understand
- Understand some
- Understand a little
- I do not understand the concept at all

Part 2

3- How would you perceive the importance of sustainable development for?

Mark only one oval per row.

	Not important	Possibly important	Important	Very important
You Personally:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
You as an Accountant / Controller:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your Country:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The Society World-Wide:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Future Generations:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4- To what extent do you agree or disagree with the following statements?

Mark only one oval per row.

	Strongly agree	Agree	No opinion one way or another	Disagree	Strongly Disagree	Don't know
What I learned about business ethics is useful for my future work life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Incorporating sustainable development with accounting, help me learn how I can have a positive impact on the world around me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Integrating sustainable development with accounting education help for my future career.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Part 3

5- How is the concept of sustainable development covered in your university program?

Mark only one oval.

- Courses with sustainability as a major topic
- You have heard about this concept during several courses
- Extra classes are provided in relation to this topic
- There is a separate program on Sustainable development

6- Does the sustainable development covered in your courses satisfy your expectations?

Mark only one oval.

- Yes, I am fully satisfied with the amount of the information.
- Yes, I am satisfied
- Yes, but I wish I got more information
- No, I am not satisfied with the amount of information.

7- What aspects of sustainable development would you like to know more about?

8- To what extent do you agree or disagree with the following statements?

Mark only one oval per row.

	Strongly agree	Agree	No opinion one way or another	Disagree	Strongly Disagree	Don't know
My knowledge of sustainability has been improved after taking accounting courses involving sustainable development content.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My attitude toward accounting education has been improved after taking the accounting courses with sustainable development content.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sustainable development is an important and useful concept but I am not happy with the method used in my university in order to integrate accounting with sustainable development.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>