PRME AND THE SUSTAINABILITY IMPERATIVE: HAVING AN EARLY IMPACT, STARTING WITH FRESHMEN

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Abstract

The call for transformative change in business education is urgent and codified in the six principles for responsible management education (PRME). Starting early, with entering freshmen, provides the best opportunity to initiate an effective trajectory for student development with respect to developing the capacity for responsible leadership. The studies in this paper provide reasonable baselines for freshmen entering Business programs and the instrument used seems to have face validity because key items load on meaningful factors that are interpretable. These baselines can inform the types of content and pedagogies that are appropriate for further development. There is preliminary evidence that targeted pedagogical treatment does make a difference and that the specific pedagogical intervention used did enhance students' knowledge and sensitivity about CSR concepts.

Keywords: PRME, Sustainability, Management Education.

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Introduction

In the year 2000, the United Nations set in motion the processes for establishing the eight Millennium Development Goals (MDGs) with a target time frame for 2015 ("United Nations Millennium Development Goals", 2016). These provided the larger context for the creation of the six Principles for Responsible Management Education (PRME) in 2007 (PRME, 2016) by the UN Global Compact. In 2015, the eight MDGs were followed by the 17 Sustainable Development Goals or SDGs ("Sustainable development goals - United Nations", 2016).

The six principles set forth by PRME are:

Principle 1. *Purpose:* We will develop the capabilities of students to be future generators of sustainable value for business and society at large and to work for an inclusive and sustainable global economy.

Principle 2. *Values:* We will incorporate into our academic activities and curricula the values of global social responsibility as portrayed in international initiatives such as United Nations Global Impact.

Principle 3. *Method:* We will create educational frameworks, materials, processes and environments that enable effective learning experiences for responsible leadership.

Principle 4. *Research:* We will engage in conceptual and empirical research that advances our understanding about the role, dynamics, and impact of corporations in the creation of sustainable social, environmental and economic value.

Principle 5. *Partnership:* We will interact with managers of business corporations to extend our knowledge of their challenges in meeting social and environmental responsibilities and to explore jointly effective approaches to meeting these challenges.

Principle 6. *Dialogue:* We will facilitate and support dialogue and debate among educators, business, government, consumers, media, civil society organizations and other interested groups and stakeholders on critical issues related to global social responsibility and sustainability.
(PRME, 2016)

Since 2007, hundreds of Business schools around the world have become PRME signatories and many more have adopted these principles informally or have been influenced by these principles

as Business and Management education has become much more attuned to sustainability perspectives.

In this paper we seek to explore the organizational context and practices, with respect to sustainability, at three Colleges of Business in the US and Canada. Also, we will attempt to create baseline measures of student awareness, and to some extent understanding, of key sustainability issues at the time of entry into these Business programs as freshmen. Further, we will also report on an exploratory study of the impact of pedagogical interventions in a freshmen seminar in order to better understand and refine ways to implement actions consistent with the first three PRME principles.

Higher Education and Sustainability

The calls for shifting paradigms in higher education have been on the rise over the past two decades and have found a firmer footing since the advent of MDGs, PRME and SDGs. Jansen (2008) calls on higher education systems to shift from delivering competencies for a market economy to delivering competencies for sustainable development in a way that recognizes limits to growth. Lawale and Bory-Adams (2010) also call for a fundamental shift toward educating for sustainable development and offer an organizing framework based on the four pillars of the Delors report. Godemann et al. (2014) exhort higher education institutions to engage sustainable development values and examine their own impact on sustainability by increasing their own capacity for social accountability and stakeholder engagement. Voros & Schermerhorn (1993) point out the need for revised accreditation standards in Hungary to include a commitment to sustainable development at a time of economic restructuring. In keeping with Adam Smith's ideas of explicitly addressing the needs of future generations, there must be a shift away from neo-classical logics of competition and profit seeking, toward a more holistic worldview, and education must play a transformative role (Busoi, 2015). Holm & Martinsen (2015) unpack the relationship between higher education and sustainable development and point out some of the inherent conflict among these linkages. Sustainable development will require finding a new balance and radical changes in human behavior and interaction which will need a redefined societal role for education (Zenelaj, 2013). Key competencies relevant for sustainable development education are identified by Barth et al. (2007) while Fernandez-Sanchez et al. (2014) discuss barriers and challenges to such learning.

Similarly, there are numerous examples of education – sustainability / sustainable development linkages and program development from around the world. These include Mexico (Contreras et al., 2105; Farrell & Ollervides, 2005); Sweden (Cars & West, 2015); New Zealand (Cusick, 2009; Sharma & Kelly, 2014); Canada (Gudz, 2004); UK (Wehrmeyer & Chenoweth, 2006) and EU (Ashford, 2004).

PRME and Management Education

Since the formalization of PRME principles in 2007, there has been a burgeoning of PRME related themes in management education. In an interview, Manuel Escudero, the first head of PRME, drew on the Global Compact framework to make an urgent call for rethinking business education in a way that truly embraces corporate citizenship, social responsibility, and sustainability. He calls for sweeping changes in curriculum, research, and learning methodologies in management education and offers practical suggestions engage using experiential learning (Alcaraz & Thiruvattal, 2010). In a special cluster of book reviews, Forray et al. (2015) unpack various approaches to build and reinforce the PRME ethos in management education including case content and challenging learning environments that seek to maintain the complexities of managing many considerations. Moosmayer (2012; 2015) discusses the importance of the ability of academics to influence values and their pivotal roles in inspiring students to make transformative shifts in their mindsets. Waddock and Lozano (2013) address the crises facing management education of being sufficiently relevant as well as responsive to the rapidly changing needs of industry and society. They emphasize reflective thinking, practices, and a holistic awareness of themselves and their roles in the world along with systems thinking and enhanced ability to integrate and synthesize so that they can act in ways that account for their broad responsibilities to many constituents.

The importance of PRME principles, and related ideas, is well established in the literature. The studies and examples are not focused on any particular type of program or level and a good portion of the literature is at the graduate level or summative experiences for upper classmen or those close to graduating. There are also many conceptual frameworks offered and not much in the way of specific empirical examination of ways to bring about the necessary change in perspective, values, or outcomes. The path for such transformative development of students must account for their baseline status as well as begin as early as possible to elicit the most out of path dependence.

We seek to describe the organizational context, with respect to sustainability, that entering freshmen are likely to experience at three universities as below:

Drexel University, LeBow College of Business

"Drexel University is committed to protecting the needs of future generations, promoting excellence in environmental stewardship and sustainability and encouraging individual members of the University community to develop approaches to their work and lifestyles that improve the Earth's health.

"Therefore, Drexel University's policies, practices and curricula whenever possible will reflect approaches that encourage reductions in life cycle costs, safeguard or restore functioning natural systems and enhance human well-being."

Drexel University's commitment is practiced in the classroom, through various student organization initiatives and by administrative programs that put into practice concepts learned and supported. A hallmark of a Drexel education is its emphasis on linking theory to practice whether in the classroom, through its unique co-op work experience program and on and off-campus student work. There are many formal and informal learning opportunities within different degree programs, concentrations and research. Increasingly, the more typical "silos" of academic programs are changing to support more interdisciplinary work bringing students with varied interests and skills together in project-based work. The faculty role also is changing and interdisciplinary and action-oriented research is encouraged.

University President John Fry's vision is that Drexel becomes "the most civically engaged university in the United States." The Dornsife Center for Neighborhood Partnerships and the Lindy Center for Civic Engagement connect the University to the neighboring community. The concept is as an "urban extension center" that brings neighbors together to offer stakeholder-driven programming that supports the health, wellness and stability of the surrounding neighborhoods. Drexel's affiliation with the Academy of Natural Sciences of Drexel University broadens the possibilities for green learning even further by providing students, faculty and professional staff with access to the Center for Environmental Policy, which holds public programs such as the Urban Sustainability Forum and Town Square: Citizens for Science.

The sustainability in its many dimensions of the neighborhood and the practices that support it are key. The drivers are Drexel students and faculty and staff from the various colleges who

work with community members and other partner groups to solve problems. This is community-based learning, student civic leadership that complements academic work, community partnerships and volunteerism. Sustainability in this case is adapted to the urban environment.

Many freshmen arrive already committed to supporting sustainability work and join the various student groups focusing in different areas. The STAR program selects freshmen to support in full time work during the summer between their first and second years of study. They work with faculty on various research initiatives ranging from doing basic research in the sciences to the business-related research in operations, management and finance. A result has been published research and conference presentations.

As a foundation of what currently is happening, earlier efforts resulted in the formation of Drexel Green, an initiative that initially surveyed all aspects of University life – buildings, academic initiatives and student life – and identified both the "low-handing" fruit of immediately achievable actions as well as those that would unfold only over time but would became part of a strategic plan. New majors, concentrations, minors, project work, changes to campus building projects, residences and the Centers emerged. Student groups like the Drexel Smart House provided another way to engage. A goal was to conduct research and develop designs in the areas of environment, energy, interaction, health and lifestyle with the ultimate goal of improving quality of life in the urban residential setting. Twice awarded EPA P-3 grants for work on lightweight green roofs, another project is furthering the research and focusing not only on the "science" of them but also the application to the "old" housing stock that might not support the weight of more available designs.

Again, students from throughout the university can work together. Within the LeBow College of Business itself, helping students learn more about CSR is another topic that complements work in sustainability. A relatively new course was added to the curriculum that focuses on corporate responsibility management. While it "sounds good" and companies may also agree that they have responsibility for having a positive impact on society and the environment, doing so is not simple and students learn about the opportunities and also the potential problems in implementing programs.

The goal of sustainability is being woven into the fabric of academic and operational life at

Drexel. A key driver also is the impact in very real terms of the various initiatives on an urban neighborhood in need.

Efficiency: Electricity, Water, Transportation

Recycle: Cans & Bottles, Paper, Printer Cartridges, and more

Reduction**:** Energy, Pollution, Waste

Re-Use**:** Bags & Mugs, Re-Purpose, Buy Recycled

Education: Learn & Apply, Investigate Solutions, Teach Others

Sustainability: Ensure Systems Remain Diverse and Productive

Rowan University, Rohrer College of Business

The Rohrer College of Business was among the cohort of initial signatories for PRME and signed on in 2008. The first three years, 2009-11, saw strong development with respect to PRME principles. The overall organizational climate was supportive as the university president committed to the climate change initiative for higher education and within the college of business resources were available to incentivize sustainability related faculty research and engage in outreach to external constituents. An annual conference was held each of these three years that brought in top executives and academics to engage with faculty and students and discuss current trends and future challenges with respect to economic, environmental, social sustainability. The level of interest and awareness was rising quickly among faculty and students. Then, there were abrupt changes in leadership and much of the PRME momentum was lost. Over the next three to four years sustainability related initiatives were not encouraged or funded. Once again, a recent change of leadership brought about a dramatic change in organizational climate. Over the last year, sustainability initiatives have been restored in their importance and connectedness to mission. As a result, pedagogical and faculty activity is developing positive momentum for the foreseeable future.

York University (Canada), Schulich School of Business

Schulich prides itself in being the pioneer and the leader in corporate social responsibility, ethics and sustainability. The school consistently ranks in the top three among all business schools on various global rankings such as Beyond Pink Stripes and the Better World MBA Ranking surveys. It has four endowed chairs in the related subjects and among its faculty are the top

authors in scholarly publications such as the Journal of Business Ethics, Business Strategy and the Environment and the like.

Those accolades are simply the outcome of a long held commitment that predates but closely aligns with PRME and the dedication "*to inspire and champion responsible management education, research and thought leadership globally.*" Among the many initiatives and concrete steps Schulich's programs take to deliver on such commitment are specific and pertinent core courses at the first year of undergraduate and graduate programs, upper level CSR focused electives, associated student clubs, guest speakers, student initiatives, and awareness and fundraising drives.

Freshmen at Schulich are introduced to the role of ethics, corporate social responsibility and sustainability in management from their first semester, through a core course. There, students are exposed to the importance of ethics and social responsibility and sustainable economic development both for local and global economies and firms. The purpose of the course is to build the understanding of why this is the case and what it means for good management in the 21st century. The course introduces specific tools and skills required for the application of these frameworks in all aspects of business.

Specifically, the course introduces all freshmen students to the ethical dimension of good management. It draws on recent business scandals that have undermined public trust and confidence in business and business leaders and on emerging social and environmental issues like global warming that are creating challenges requiring creative and imaginative solutions guided by high ethical standards. The course demonstrates through examples and role plays why meeting those challenges will require managers who are aware of the role of ethics in business and have acquired the skills required to put that enhanced awareness to work in the business environments in which they have management responsibilities.

The course demonstrates why ethical decision making is by its very nature a complex activity that involves:
  - critical thinking,

- a capacity to identity those likely to be affected by business decisions,
- sensitivity to the ethical significance of those impacts,
- an understanding of the ethical responsibilities that attach to the many different roles around which business and management are organized,
- an awareness of the tensions that result through the interaction of people in organizations with varying roles and responsibilities and with varying and sometimes conflicting interpretations of their responsibilities and the ethical values they believe should guide their activities as they seek to fulfill their responsibilities and those of the organization for which they are working.

This course introduces students to the skills they will need to respond to the ethical demands and challenges they will meet in the workplace. It utilizes ethical theories, moral terminology and concepts that are relevant to the study of business ethics. The course is issue-based and involves both in class and online threaded discussions, analyses of case studies, and realistic simulations of pertinent business scenarios.

The students complete hands on exercises that teach them how to approach and resolve moral dilemmas. They learn to identify and assess stakeholders' power, influence and importance. They are introduced to different ethical and moral standards and they link moral issues, ethical duties, and CSR to financial outcomes and the legal implications of managerial decisions.

The school sets out to develop in the students the capacity to

- Describe the complexity of the interrelationships between business and society.
- Define some basic terminology relating to the integrity of business: ethics of business, stakeholder, corporate social responsibility (CSR), social responsibility, sustainability, corporate sustainability (CS), triple bottom line, corporate citizenship, integrity in business, and responsible corporation.
- Recognize business as one institution in society and understand that its activities are influenced by other institutions and individuals referred to as stakeholders.
- Define and identify the corporation's stakeholders generally and the stakeholders relating to particular issues confronting the corporation.
- Understand the dynamic nature of stakeholder influence and that stakeholders have different goals and influence.
- Recognize the role of managers in relation to stakeholders.
- Formulate arguments supporting and opposing the stakeholder concept.
- Explain stakeholder analysis in an organization.
- Describe stakeholder management capability.
- Understand stakeholder matrix mapping.
- Discuss the diagnostic typology of organizational stakeholders.
- Apply the stakeholder identification and salience typology.
- Explain the application of stakeholder influence strategies.
- Identify the use of stakeholder collaboration approaches.

- Define social capital and understand its relationship to stakeholder theory.
- State a moral problem in complete question form.
- Explain why a moral problem involves ethics.
- Characterize a moral dilemma.
- Define the ethics of business.
- Understand the different approaches managers and business persons take to assessing the ethical implications of their decisions.
- Identify the influences on ethical behavior and define ethical relativism.
- Describe the common theoretical bases for ethical conduct.
- Appreciate the challenges of ethics in business.
- Describe corporate social responsibility (CSR).
- Appreciate the various foundations of social responsibility theories..
- Define the four contemporary CSR concepts: corporate sustainability, reputation management, social impact management, and triple bottom line.
- Describe corporate and business citizenship.
- Explain the complexity of corporate social responsibility by understanding a unifying CSR framework.
- Identify the different responses to corporate social responsibility.
- Define corporate philanthropy and describe the form it takes.
- Define corporate voluntarism and describe the implications for employees, employers and the community.
- Define corporate sponsorship and identify trends in this approach to CSR.
- Define social venture philanthropy and understand this approach to CSR.
- Explain what a social enterprise is and what social entrepreneurship means.
- Appreciate the challenges confronting small businesses in practicing CSR.
- Identify emerging trends and issues that arise as CSR takes on different forms and approaches.
- Define and describe the pros and cons of a statement of values.
- Make the distinction between codes of conduct and codes of ethics.
- Appreciate the purpose of ethics training in an organization.
- Define an ethics audit.
- Explain the role of ethics officers and ethics committees.
- Understand how ethics reporting systems work and define whistleblowing.
- Know who is responsible for managing the ethics of business.
- Identify the approaches to ethics programs.
- Evaluate ethics programs and list their benefits.
- Recognize that ethical misbehavior may occur despite management efforts and the implementation of ethics programs.
- Understand the extensiveness of business's responsibilities toward the environment.
- Define two key terms: the environmental ethic and sustainable development.
- Identify and define the main environmental concerns confronting business and society.
- Describe the influence of government in addressing environmental concerns.
- Define environmental non-governmental organization (ENGO) and appreciate its influence on the corporation.
- Explain how market-driven environmentalism would work.
- Describe a corporation's structural and strategic responses to environmental concerns.

- Understand how the main functions of a corporation are influenced by environmental concerns and how to identify the responses necessary.
- List the sustainability measures and standards that exist and become aware of corporate and industry initiatives to report on their environmental responsibilities.
- Appreciate that there are dissenting views on the environment and consider how business should respond.
- Identify the opportunities and challenges for a corporation's response to environmental concerns.
- Understand the link between corporate strategic management and sustainability strategy, and why corporations have different types of sustainability strategies.
- Relate sustainability strategy to a corporation's purpose as represented by its vision, mission, and values statements.
- Understand the importance of strategy formulation, including an assessment of the environment for social and environmental issues, the evaluation of the corporation's internal resources and capabilities, the development of objectives to a sustainability strategy, and the generation of sustainability options.
- Elaborate on the implementation and evaluation of a sustainability strategy.
- Appreciate that there are different approaches to achieving sustainability strategy and that challenges are involved in the process.
- Recognize that global business brings new business responsibilities.
- Link the reduction of poverty in developing countries to aspects of capitalism.
- Assess an organization's attempts to create and maintain ethical responsibility.
- Conduct an informal ethical audit of a large corporation, a company whose shares are publicly traded and are held by a large number (hundreds or thousands) of shareholders, using a Corporate Report Card.
- Analyse and assess the structures and policies that might be implemented to ensure an ethically responsible organization, including:
    - Communicating Ethical Expectations
    - Policy and Practice Review
    - Developing Moral Character
    - Recruitment and Selection
    - Reward and Punishment Systems
    - Promotion and Career Development
    - Training and Management Development
    - Formal and Informal Discussions
    - Structural Approaches
- Generate a plan and proposal for policies and practices that might be implemented to ensure an ethically responsible organization.

Methods

A convenience sample, or the entire available population, of freshmen was surveyed at the start of the semester and, for another part of the study, at the start of the semester and at the end of the

semester after exposure to sustainability related material, exercise. These data are currently drawn from two universities.

The questionnaires (Appendix A, B) were designed to capture student awareness of social responsibility concepts. The data will also serve to validate, and/or improve, the questionnaire.

Study I

Participants: Participants for this study consisted of first year (Freshmen) students enrolled in undergraduate business programs at a northeastern university in the U.S. All participants were enrolled in a seminar course specifically designed for freshman. Students voluntarily completed a paper pencil survey during class time in the aforementioned class. The sample consisted of 220 students out of which 24% were female students. The average age of participants is about 19 years.

Instrument: An eight-question questionnaire was designed to record 1) students' self-reported knowledge to CSR related issues prior to working on a research assignment 2) students' attitude towards the effectiveness of the assignment and 3) student's sensitivity towards CSR issues and 4) moral imperative of engaging in CSR. The questions were simple one line sentences to which students responded on a 5-point likert scale ranging from strongly agree to strongly disagree.

The first half of the survey focused on assessing students' knowledge regarding CSR concepts before undertaking the pedagogical intervention described above. Sample questions include " I have a general idea about CSR". The second half of the survey focused on measuring student's awareness and sensitivity to organization's actions on societies after working on the CSR assignment. Sample questions include "After working on this assignment, I am more sensitive to how certain products are manufactured and negatively impact the environment". The instrument is presented in its entirety in the appendix.

Procedure: Data was first collected in Fall 2015, to assess how students' perception about the assignment and self-reported understanding of CSR concepts. Students were given a paper-pencil survey that they completed in class towards the end of the semester after all the students worked on a research based assignment designed to enhance students understanding of CSR

concepts.

Results:

Assessment of Measures (Factor Analysis): Since the questionnaire focused on several constructs such as student's prior knowledge of CSR concepts, sensitivity towards CSR etc., exploratory factor analysis were conducted to evaluate if the items loaded on the factors as expected. Six items from the survey that focused on the aforementioned constructs were subjected to exploratory 'principal components analysis. As presented in table 1, the results suggested three factors with eigenvalues over 1.00 cumulatively explaining 40% of the variances. The results of the factor analysis are presented in Table 1. The three factors are named: Prior Knowledge of CSR, Student Sensitivity towards CSR and Ethical Imperative of CSR. As presented in Table 1, all the factor loadings were above 0.35 and there were no cross loadings suggesting that student's prior knowledge of CRS concepts can be discerned from their knowledge acquired after the pedagogical intervention.

Insert Table 1 here

Table 2 provides means, standard deviation and frequency distribution of the student's knowledge of the CSR concepts both before and after the pedagogical intervention. As presented in table 2 about 50% of the respondents reported that they had low levels of knowledge in the CSR domain, about 20% of the respondents had prior understanding of CSR that can be characterized as mediocre and about 30 % of the respondents had high levels of understanding of CSR. Interestingly, only 0.9 percent of responses (i.e. 2 student responses) showed low sensitivity to CSR after working on the assignment and about 60% of the students show high level of CSR sensitivity. In terms of moral imperative of engaging in CSR, only 1.4 % of the responses reflect low levels of understanding and about 80 % of the responses show medium to high levels of understanding of the rationale.

Insert Table 2 here

To further examine the effectiveness of the pedagogical intervention, linear regression analysis were conducted in the three groups based on the prior knowledge of CSR concepts. The results of the regression analysis show that perceive effectiveness of assignment was positively and significantly related to the CSR sensitivity (B= 0.30; p<0.05) and understanding the moral imperative for CSR (B= 0.35 ; p<0.05). To further investigate these relationships, we divided the sample into three groups based into low, medium or high prior CSR knowledge and conducted linear regression on these three groups. As shown in Table 3, the student groups belonging to the both the high and low levels of CSR understanding had a strong positive relationships between the perceived effectiveness of the research assignment and their CSR sensitivity and understanding of the moral imperative for organizations to engage in CSR. It is interesting to note that the group, which has mediocre levels of prior understanding of understanding, did not show any significant results.

Insert Table 3 here

Study II

Participants: The participants for this study consisted of first year (Freshman) students enrolled in undergraduate business programs at two northeastern universities in the U.S Students voluntarily completed a paper pencil survey during class time in the aforementioned class. . The sample consisted of about 32 % of female students. The average age of participants is about 19 years.

Instrument: Two surveys were administered in Fall 2016 (Appendix B). The first survey focused on: 1) Student's awareness about CSR 2) student's sensitivity towards CSR issues and 3) moral imperative of engaging in CSR. A second survey was designed to assess student's attitude and knowledge after working on a CSR based research assignment. This paper presents the result of the first survey only as data collection for the survey 2 is currently underway.

The survey used in study 1 was revised to assess student's awareness, attitude and knowledge of

CSR. A copy of the instrument is provided in Appendix B.

Procedure: Paper-pencil surveys were administered during class-time and students had the choice to anonymously respond to the surveys. At one university surveys were administered during the middle of the semester (although before working on the CSR assignment) and the other university students undertook the survey at the beginning of their second quarter of the first year at College.

Results:

Assessment of Measures (Factor Analysis): Factor analyses were conducted on the data collected to see if items loaded on the constructs as expected. The results of the factor analysis reveal that some items had cross-loadings. As a result, these items were removed from the analysis and three factors emerged. Table 4 presents the results of the factor analysis. All the items loaded as expected and factor loadings were above 0.51 and there were no cross loadings suggesting these factors are distinct from each other. In line with study 1, these factors were named, CSR Knowledge, CSR sensitivity and moral imperative of CSR.

Insert Table 4 here

Table 5 provides means, standard deviation of the student's knowledge of the CSR constructs at both the Universities involved in this study.

At mentioned earlier, at University 1, data was collected in the middle of the semester after students covered a chapter on Corporate Social Responsibility and at University 2, data was collected at the beginning of the quarter and students were not exposed to any discussion about CSR.

Insert Table 5 here

As presented in table 5, the average awareness about CSR is a bit higher (3.23) at the University where there was a discussion of CSR concepts as compared to the university where CSR was not discussed (2.95). However, the means for CSR sensitivity and for moral imperative of CSR were quite close in both the universities. To further examine differences between the means, t-tests (table 6) were conducted between the two samples and the results show that the two groups are significantly different in only student's self-reported awareness of CSR. No significant differences were reported in the two student samples from the two universities between student's sensitivity and understanding of moral imperative of CSR.

Insert Table 6 here

Major Findings and Discussion:

The questionnaire, even though brief, seems to have face validity in that key items loaded on meaningful factors that are interpretable.

Study 1 and Study II together provide reasonable baselines for freshmen entering Business programs at least in the specified geographic location. These baselines provide a point of departure and can inform the types of content and pedagogies that are appropriate for further development.

There is preliminary evidence that targeted pedagogical treatment does make a difference and that the specific pedagogical intervention used did enhance students' knowledge and sensitivity about CSR concepts.

Given the clarion call to transform management education in fundamental ways and to ensure that business schools develop students with a holistic understanding of their roles as future decision makers and resource allocators, business school graduates must have the capacity to demonstrate responsible leadership. It is important to start down this path early and have a good understanding of the starting point. Based on the baseline information, it is encouraging to see that using appropriate interventions can make a measureable difference in perceived sensitivity and understanding of social responsibility.

A systematic approach to transformative change in management education would follow up on the many useful conceptual frameworks offered in the literature with actionable programs that start at

the inception of the college journey, using dynamic approaches that are calibrated to the trajectory of student development.

Limitations

The studies in this paper are cross sectional in nature and occur at different times at different institutions. The exception is study I which has a pre and post measurement at one institution.

Even though the brief questionnaire design appears to be effective in capturing relevant factors, a limitation is the use of some single item factors.

The geographic and demographic variation of the current student sample is also limited.

Future Research Directions

Ideally a longitudinal study of students through their entire freshmen year would be methodologically stronger. Using instruments with multi item factors that are reliable would also be preferable. Having well timed and coordinated data collection across institution, in multiple countries, with varied student demographics would enhance the generalizability of the findings. Varying the pedagogical interventions would provide a better understanding of the effectiveness of different approaches.

The larger issue of paths for student development, beyond the freshman year, is an important one. The continued integration of sustainability issues in courses throughout the entire business curriculum is necessary and prescribed by the PRME principles. Also, the extensive use of experiential learning is vital in engaging students with multiple stakeholders.

Hence, future research directions point toward two clear streams – programmatic development and innovation and methodological refinements to enable better calibration of approaches that are chosen at various points on the development trajectory. Together, these can provide a powerful combination to enact the much needed transformation in management education.

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Table 1: Factor Analysis

	Factor		
	CSR Sensitivity	CSR Imperative	CSR Prior Knowledge
Q1: Before this class, I had a general idea about what Corporate Social Responsibility?			.678
Q2: I had no idea that organizations can negatively impact environment		.355	
Q3: After working on this assignment, I will pay more attention to how an organization's actions affect societies.	.907		
Q4: After working on this assignment, I am more sensitive to how certain products are manufactured and negatively impact the environment.	.493		
Q7: I think organizations have a moral and ethical responsibility to not exploit environmental and natural resources.		.354	
Q8: In today's world, it is strategically imperative for organizations to engage in CSR.		.647	

Extraction Method: Maximum Likelihood.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

Table 2: Factor Analysis from Study I

Value	PRIOR Knowledge Mean(3.438) Std. Deviation (0.81)		CSR Sensitivity Mean (4.08) Std. Deviation (0.52)		CSR MORAL IMPERATIVE Mean (4.16) Std. Deviation (0.55)	
	Frequency	Cumulative Percent	Frequency	Cumulative Percent	Frequency	Cumulative Percent
0.00- 0.49						
0.50 – 0.99			1	0.5	1	0.5
1.00 – 1.49	19	8.6	2	1.4		
1.50 -1.99			1	1.8		
2.00- 2.49	71	40.9	2	2.8	1	0.9
2.50- 2.99			2	3.7		
3.00-3.49	40	59.1	16	11.0	3	2.3
3.50- 3.99			51	34.5	21	20.6
4.00-4.49	74	92.7	95	93.6	113	72.5
4.50-5.00	16	100	48	100	60	100
N	220		220			

Table 3: Regression Result

	β	*t-value*	Sig.
Predicting CSR Sensitivity			
Group: Low Prior Knowledge			
Predictor:			
• *Perceived Effectiveness of Assignment*	0.30	2.88	0.005*
• *Enjoyed Working on the Assignment*	0.26	2.54	0.13
Group: Medium Prior Knowledge			
Predictor:			
• *Perceived Effectiveness of Assignment*	0.16	1.07	0.29
• *Enjoyed Working on the Assignment*	0.27	3.22	0.00*
Group: High Prior Knowledge			
Predictor:			
• *Perceived Effectiveness of Assignment*	0.35	3.16	0.02*
• *Enjoyed Working on the Assignment*	0.14	1.43	0.19
Predicting CSR Imperative			
Group: Low Prior Knowledge			
Predictor:			
• *Perceived Effectiveness of Assignment*	0.45	4.48	0.00*
• *Enjoyed Working on the Assignment*	0.11	1.05	0.29
Group: Medium Prior Knowledge			
• *Perceived Effectiveness of Assignment*	0.23	1.30	0.20
• *Enjoyed Working on the Assignment*	-.20	-1.1	0.27
Group: High Prior Knowledge			
Predictor:			
• *Perceived Effectiveness of Assignment*	0.31	2.60	0.01*
• *Enjoyed Working on the Assignment*	-0.04	-.36	0.71

Table 4: Factor Analysis (Study II)

	Component		
	CSR Imperative	CSR Sensitivity	CSR Knowledge
Q1:I have a general idea about Corporate Social Responsibility			.927
Q3: I am aware of the concept of sustainability		.604	
Q4:I am aware of how certain products are manufactured and negatively impact the environment.		.825	
Q5: Organizations can negatively impact the natural environment and societies.		.587	
Q6:I think organizations have a moral and ethical responsibility to not exploit environmental and natural resources	.853		
Q7:Organizations have significant responsibilities beyond earning profits for owners / shareholders.	.774		

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Table 5: Mean, Std. Deviation of Study Constructs in Study II

	University 1 (Rowan)		University 2 (Drexel)	
	Mean	Std. Deviation	Mean	Std. Deviation
CSR Knowledge	3.23	.098	2.95	1.01
CSR Sensitivity	4.19	0.46	4.22	0.54
CSR Imperative	3.9	0.59	3.9	0.71

Table 6: **Differences in Means- t test results**

		F	Sig.	t	df	Sig. (2-tailed)
CSR Knowledge *Mean:* *Std. Deviation*	Equal variances assumed	0	0.99	2.38	300	0.02
	Equal variances not assumed			2.4	240.87	0.02
CSRSENSTIVITY	Equal variances assumed	4.39	0.04	-0.62	302	0.54
	Equal variances not assumed			-0.64	266.02	0.52
CSR Imperative	Equal variances assumed	1.4	0.24	0.03	302	0.98
	Equal variances not assumed			0.03	268.64	0.98

Appendix A: Survey administered in Fall 2015

CSR Questionnaire Fall 2015
The following questionnaire is designed to gain understanding about your experiences with respect to corporate social responsibility (CSR) and sustainability as discussed in your Seminar class. There are no right or wrong answers to these questions. Please pick the option that you think is right or suits you best.

Student Banner ID:
What is your major?

How do you identify yourself?   Male   Female
1. Before this class, I had a general idea about what Corporate Social Responsibility?

Strongly Agree   Agree   Neither Agree/Disagree Disagree   Strongly Disagree

2. I had no idea that organizations can negatively impact environment and societies before working on this assignment.

3. After working on this assignment, I will pay more attention to how an organization's actions affect societies.

4. After working on this assignment, I am more sensitive to how certain products are manufactured and negatively impact the environment.

5. This assignment enhanced my understanding about CSR.

6. Overall, I enjoyed working on this assignment.

7. I think organizations have a moral and ethical responsibility to not exploit environmental and natural resources.

8. In today's world, it is strategically imperative for organizations to engage in CSR.

9. Please provide additional comments about your experiences about working on the CSR assignment.

Appendix B: Survey Administered in Fall 2016

The following questionnaire is designed to gauge freshman student's familiarity towards Corporate Social Responsibility related concepts. Please note that there are no right or wrong answers to these questions. Please pick the option that you think is right or suits you best.

Student Banner ID (Optional):
What is your major?
How do you identify yourself?　　　Male　　　　　　　　Female

1. I have a general idea about what Corporate Social Responsibility (CSR)?

　Strongly Agree　　Agree　　　　　Neither　　　　　Disagree　　　　Strongly
　　　　　　　　　　　　　　　　　Agree/Disagree　　　　　　　　　　Disagree

2. I pay attention to how an organization's actions affect societies.

3. I am aware of the concept of sustainability.

4. I am aware of how certain products are manufactured and negatively impact the environment.

5. Organizations can negatively impact the natural environment and societies.

6. I think organizations have a moral and ethical responsibility to not exploit environmental and natural resources.

7. Organizations have significant responsibilities beyond earning profits for owners / shareholders.

8. It is strategically imperative for organizations to engage in CSR.