Connect Project: A Global Learning Experience on Sustainability in the Fashion Industry

Introduction

The Connect Project provided a collaborative educational experience that debated the challenges of environmental impacts, over-consumption and ethics in the global apparel industry. Motivated by internationalization, four leading institutions – located in the United States (US), United Kingdom (UK), China (CH) and Australia (AUS) - collaborated on a transnational project. The project brought together four instructors/facilitators and four students, one from each institution, to travel around the world in eighteen days to learn and disseminate information about sustainability in the apparel industry.

The concept of communicating experiences and knowledge transfer through shared learning is what inspired the Connect project. Each institution was also keen to engage in internationalization in response to the continued globalization of the apparel industry. The topic of sustainability in the apparel industry provided common ground and important opportunities for research to all students studying fashion, across both business and design disciplines. Students would be encouraged to base decisions on the underlying premise of social responsibility and benefitting the global community and to develop a personal definition of sustainable fashion based on their perspective, research, and creativity. The partners shared common goals to engage academics, students and professionals from around the world in participatory learning toward the importance of sustainable innovation and to educate future leaders of industry, who might instigate change.

The challenge of understanding fashion supply chains, their operations, components, inter-connections and networks is a complex subject, further complicated by the current system, which creates over-consumption. Students must critically evaluate fashion businesses in the
contexts of sustainability and social responsibility, which is a greater challenge still. The
Connect project enabled participants to learn about the multifaceted apparel system first hand
and report information and experiences to their peers through multimedia channels. Thus, it is
connecting experiences and the opportunity for knowledge exchange by reflecting on lessons
learned and sharing experiences collectively that becomes important to broadening students’
understanding of the fashion industry’s “big picture”.

Connect provided a collaborative educational experience that debated the challenges of
environmental impacts, over-consumption and ethics in the global apparel industry. It had the
following objectives:

1. To generate interest and enquiry surrounding the issues which affect the global apparel
   industry, the environment in which we live and our future.

2. To better understand the scope and scale of the problems and challenges that face the
   apparel industry in creating a global sustainable future.

3. To encourage students to become active in the campaign for a sustainable future.

The Connect project’s design offered the opportunity to practice problem based learning
(PBL), creating a focused learning experience grounded in exploring sustainable innovation in
the context of the apparel industry. Through visits to each of the participating universities,
constructive investigations were formed toward structuring the students learning within each
socio-cultural and market context. This offered the environment in which the students learned
about sustainable innovation by recording their experiences, developing understanding and
reflecting on what they had learned by posting on the projects blog.

Review of Literature

Overconsumption
The increase in demand, supply and rapid consumption of garments in the last fifteen years has generated sizeable problems related to over-consumption and consequent environmental and ethical impacts. Increased supply and consumption generates volumes of waste, much of which ends in landfill. It is estimated that 95% of global textile waste is recyclable or could be used for energy recovery. In the UK alone, 9,500 garments are discarded every five minutes.

The average U.S. citizen throws away 70 pounds of clothing and household textiles every year. The U.S. Environmental Protection Agency (EPA, 2015) estimates that textile waste is approximately 5% of all landfill space and even though the textile recycling industry recycles approximately 3.8 billion pounds of textile waste each year, this only accounts for 15% of all textile waste. Textile waste grew 40% between 1999 (18.2 billion pounds) and 2009 (25.46 billion pounds) and it is projected to continue to grow, reaching 35.4 billion pounds by 2019. Unfortunately, the diversion rate of keeping textiles out of the waste stream only increased by 2% during the same time period (1999 – 2009) (EPA).

**Sustainability: Issues and Impact**

Sustainability is the idea that society should operate in such a manner that all our needs could be sustained indefinitely; processes become cyclical where companies and individuals are constantly putting back into use whatever has been created. The idea focuses on a better world not only for the present inhabitants but for future generations and encompasses these core aspects: environment, economy and social equity. Sustainability in the fashion industry has been present for years in small pockets at companies such as Patagonia (US, founded 1973), From Somewhere (UK, founded 1997) and Purepod (AUS, founded 2007). Organizations have also been founded which promote sustainability. The Council of Textile and Fashion Industries of
Australia has a sustainability initiative section and supports efforts by partnering with Sustainable Fashion Australia and Ethical Clothing Australia (founded 2010) to educate the industry on sustainability. The American Apparel and Footwear Association has separate committees on social responsibilities and the environment. National Association of Sustainable Fashion Designers (U.S.), founded 2008, is a non-profit organization which educates industry on sustainability and sustainable practices.

The apparel industry is currently facing three forces which may move the sustainability effort quickly forward (Chouinard, Ellison & Ridgeway, 2011). First, being socially responsible is no longer considered a cost in business, it is looked at as a way of doing business and a way which can add value to a product. Secondly, members of the fashion industry are creating specific measures which they can use to show their improvement and efforts in sustainability practices. Finally, The Nature Conservancy, among others such as the United Nations and the World Bank, have been working to develop ecosystem evaluation methods in order to place a “price” on that environment (Chouinard, Ellison & Ridgeway).

In July 2012, the Sustainable Apparel Coalition (based out of San Francisco) launched the Higg Index, a self-assessment standard designed to measure and promote sustainable supply chains in the apparel and footwear industries. This index gives companies a tool to gauge social and environmental levels and indicate where improvement might be focused. Current members include international brands, manufacturers, retailers, industry affiliates and non-profit or government organizations and international companies such as Nike, PVH, VF Corporation, Primark and H&M.

Globalization
Globalization is defined as the increasing phenomenon of international interdependence and interconnectivity, which brings together economic, cultural and social change (Marginson & van der Wende, 2009). According to Suárez-Orozco and Qin-Hilliard (2004), “The globalization of economy and capital; the globalization of media, information and communication technologies; large scale immigration; and the globalization of cultural production and consumption” (p. 7) will be major influences affecting youth and education worldwide. Therefore, it must be recognized that while change is increasingly rapid and globalization ever more complex, a new and radical approach to education is required (Suárez-Orozco & Qin-Hilliard, 2004). Additionally, Rizvi (2006) argues that with the shifting paradigms of international integration of products and markets, universities must become involved in global practices or “face obsolescence” (para. 4).

Internationalization of Education

In discussing the effects of globalization on education Suarez-Orozco (2008) suggests that the current generation is the first where “…the fortunes of kids growing up in Beijing, the fortunes of the kids growing up in Buenos Aires, the fortunes of the kids growing up in Boston are deeply, in an empirically verifiable way, interconnected”. That “there is no ‘over there’ anymore” and education must now arbitrate the power of globalization through multi-disciplinary engagement (Suarez-Orozco, 2008). Bergan, (2010) concurs, suggesting that in order to provide a holistic education in a globalized society the individual must be made aware of the world outside their immediate experience and crucially, that higher education cannot play its part without internationalization.

Internationalization has been defined by Knight (2003, p. 2) as “the process of integrating an international, intercultural or global dimension in to the purpose, functions for delivery of
post-secondary education.” Higher educational institutions have expanded their international
activities (study-abroad, foreign language offerings, international students, visiting scholars, etc.)
significantly in the past twenty years (Altbach & Knight, 2007). Some of the motivations behind
this increase is the desire for students to become more culturally aware which may enhance their
employability after graduation (Altbach & Knight). This is particularly important in a global
industry which employers may expect their employees to work across borders and cultures. The
internationalization of labor markets for skilled individuals provides an incentive to gain
international experience as part of their studies. Undergraduate students can benefit from
education that prepares them to be global citizens (LeHew & Meyer, 2005).

Institutions of higher education recognize that within the global knowledge economy they
will be distinguished by their engagement with internationalization in order to respond to the
competitive world marketplace (Rizvi, 2006). This is a view shared by Bergan and Dramian
(Bergan, 2010), who state that higher education cannot fulfil its role unless it internationalizes. It
is therefore incumbent on universities to internationalize curricula to improve their student’s
prospects in globalized sectors of the labor market (Marginson & van der Wende, 2011). It is
reasonable to assume therefore, that an education for a globalized world must aim to develop the
advanced cognitive skills needed for identifying and solving problems, presenting arguments and
communicating across cultures, in order to become more competitive in a world of rapid change
(Suárez-Orozco & Qin-Hilliard, 2004).

Internationalization of the Global Fashion Industry

The growth and globalization of the fashion industry is unprecedented. The scale and
productivity of worldwide operations involving the production and sale of fashion products, the
import and export of raw materials, textiles and finished garments associated with apparel supply
and consumer consumption has grown exponentially. The fashion and textile industry in 2013 exported almost US$766 billion of merchandise and imported over US$863.5 billion worldwide (WTO, 2014). Fashion businesses work with multiple countries on a daily basis with over 85% of U.S. fashion firms’ sourcing from at least six different countries and 20% of these firms sourcing from more than twenty different countries (Lu, 2015). U.S. fashion companies will continue to diversify their sourcing with 53% expecting to be more diversified within two years (Lu, 2015). The industry as a whole is responsible for almost 5% of global trade (WTO). In 2013, exports of textiles and clothing grew four times as fast as the average growth for all exports – 8% as opposed to 2% (WTO).

In 1980, China exported US$1.6 billion of textiles and apparel. By 1996, it was exporting sixteen times that amount at US$25 billion. The late 1990s saw the introduction of fast-fashion as a strategy for selling low cost fashion in high volumes, which caused an explosion in demand for new apparel with increasingly short lifecycles. China’s garment industry has been one of the primary economies that supported the scaling up of demand with supply. The net result has been that China’s 2011 figure for textiles exports is US$154 billion, another six times more that exports in 1996. Similarly, Bangladesh exported US$20 billion worth of textiles in 2011 in comparison to US$2.2 billion in 1996, a 900% growth in just fifteen years. Fashion is truly a global industry and it shows no indication of slowing its growth.

According to Kunz and Garner (2011), textile and apparel related businesses provide employment for more people than any other business segment and these positions can be found in every country of the world. Many companies have their home base in one country (probably a developed country) and design, source, and/or manufacture in a second or even a third country (most likely a less developed country). Business teams are created across countries in order to
keep track of the supply chain processes. To meet the demands of this global environment, students must be prepared to not only think differently but even behave differently to gain an understanding of the multi-dimensional aspect of this type of business and teamwork within an international environment.

**Problem Based Learning**

The Connect project advocated learning about the issues and solutions for sustainable fashion innovation by providing the opportunity for each of the four students to directly experience and evaluate a wide range of expertise, practices, solutions and problems through participation in a planned series of visits, discussions, presentations, events, meetings, interviews and workshops thematic of the projects objectives. The host institution in each country visited by the Connect team planned their own schedule based on existing partnerships and collaborations with firms and experts with the overall theme of sustainable fashion innovation which offered a broad range of issues to be investigated. The discourse, debate and participation implicit in the activities was the stimuli for learning, allowing each of the student members of the team to interpret, understand, research, critically evaluate and determine potential solutions to the problems they discovered during the experience.

The structure of the project actively encouraged student engagement in self-directed learning (SDL). Students journey through learning in the Connect project and its collaborative nature meant that the learning process was shared within a small team; the student participants cooperated as a small group that assisted each other in navigating the complexity of the sustainable fashion innovation issues and the instructors from each university in the team worked as facilitators for student learning; supporting and guiding their progress and augmenting ideas, research and solutions through their own expertise.
The learning objectives and structure of the Connect project were underpinned by the theories and practices of Problem Based Learning (PBL), an instructional method in which students learn through solving problems and reflecting on their experience (Hmelo-Silver & Barrows, 2006). PBL is focused on experiential learning around investigation and resolution toward meaningful problems. Barrows (2002) suggests that PBL should explore a problem that is ill-structured. This provides an incentive for learning; as such, PBL requires topics that are complex and cannot be solved with one simple solution. Sustainable fashion innovation is one such topic, with no single correct answer, in which learners must explore the knowledge domain, critically evaluate alternatives and provide reasoned arguments to support decisions and solutions generated. The complex and pervasive nature of sustainable fashion innovation and the range of practice and research taking place around the topic made it the perfect exploratory theme for PBL activity. The goals of PBL resonated with the objectives of the project in five key areas:

1. To construct an extensive and flexible knowledge base around sustainable fashion innovation in a real-world context. (Make sense of realistic ill-structured problems)
2. For student participants to develop effective problem-solving skills
3. Enhance students ability of SDL and lifelong learning skills
4. Develop their capabilities and effective collaborators
5. Become intrinsically motivated to learn about the issues of sustainable fashion innovation and take ownership of the issues, problems and solutions. (Hmelo-Silver, 2004)

The nature of PBL is based on developing students’ skills in SDL toward addressing broad problems. The project itself provided a series of experience led activities that exposed students to a wide range of practices and perspectives on sustainability in small and large firms.
and discussions with leading academics and professionals who are proponents of the subject or undertaking entrepreneurial activities that demonstrate new thinking in sustainable business. The project purposely provided minimal information about the topic and activities prior to the learning events in its schedule, thus ensuring that the emphasis was on the student discovering the issues and ensured they would take an experimental and cooperative learning approach (Yusof, Hassan, Jamaludin & Harun, 2012). Within this structure and in the process of exploring the problems students discover, it is suggested the learner should be able to develop an awareness of what they do not understand, set a series of their own learning goals and define what they need to know more about and choosing appropriate strategies to achieve this (Allen, Donham & Bernhardt, 2011). Importantly they must also be able to reflect on the process at regular intervals to consider what has been learned and re-evaluate what is next in their investigation. All of this must take place in a real world context, one that makes the learning worthwhile, because its usefulness and application is demonstrated to the learner as they experience the issues directly (Hmelo-Silver, 2004).

The constructivist nature of learning within PBL and the planning of the Connect project and its broad objectives made the use of PBL pedagogy as a decision that allowed the collaborating teams to integrate information and learning across multiple domains and cultural backgrounds within a complex theme. This also provided a unique opportunity to facilitate knowledge construction and transfer of knowledge between students, academic staff, universities, and their partners more broadly via the projects social media reach, forming a rich learning community (Smith, Sheppard, Johnson & Johnson, 2005). The structure and schedule of learning objectives, activities, challenges and cooperative learning opportunities as well as the
facilitators and reflective blog served as a scaffolding for students to explore the issues of sustainable fashion innovation.

The Millennial Generation

According to Considine, Horton and Moorman (2009) the “Millennial” are the first generation who have grown up since the advent of the World Wide Web and other digital technologies. This generation, born post 1982, are regarded as digital natives, having been immersed in information and communication technologies (ICT) for all of their lives. Considine et al. (2009) further suggest that the millennial generation are fluent and creative in their use of ICT, engaging with ease in the rapid developments of emerging technologies. Preferred methods of communication include social media, which includes the sharing of information, images and videos through webpages, online journals and blogs. A conclusion is drawn that education needs to take into account the digital world of the millennial generation in building a suitable environment for learning (Considine et al.).

A web page was developed for this project in order to allow students at each institution follow the travel of the core group. While in each country, each student blogged about their experiences and informed followers about what they were learning. On traveling days, each institution uploaded pertinent videos that were produced or procured about sustainability efforts in the fashion industry. Topics included mass production of new garments from second hand clothes, corporate responsibility in manufacturing, innovation in sustainability, ethical and unethical practices, upcycling, re-use and end of life. This allowed students following the experience at the home institutions to have new information every day on the project.

Connect Project
The Connect project was developed in response to the need for internationalization and to broaden student’s concepts of the global fashion industry. Using PBL pedagogy, the project brought awareness of sustainable fashion innovation to four institutions around the world.

The Connect Project provided a contemporary platform for ICT, which motivated students to engage and participate in the debate through the preferred channels of their generation of learners. A webpage, twitter feeds and blogs provided current information to learners at each host university in real time.

**Role of the Instructors**

The instructors included experts in different areas of the fashion industry which brought different perspectives to the experience. In the PBL format, instructors are facilitators in the learning process. Barrows (1992), the theorist behind PBL, states that the role of the facilitator is to model higher order thinking skills by asking questions to encourage students to think deeply about the issue. To achieve this, the facilitator should constantly ask the students “why?” or “what does that mean?” and be careful not to interpret, express an opinion or give information to the student. Facilitators should also challenge the students through questioning to achieve deeper thinking such as “how do you know this is true?” or “what else might be important?” In a collaborative learning environment, fellow students should be encouraged to share this role and ask each other questions as well.

The instructor/facilitators in the Connect project worked with one another and helped students focus on the objectives through conversations surrounding the learning experience and helped internalize the large amounts of information being presented daily. As each facilitator had a different area of specialty, the responsibility of asking questions was taken on at different times throughout the trip.
Role of the Students

The students were selected for this project by each institution through their own selection process. The traveling students were encouraged to reach out to each other before meeting in person to start a dialog and to answer any questions that may arise. Each student was responsible to host the other students while in their respective city. They were also required to create a presentation on fashion in their city which included photographs of buildings, shopping districts, people on the street, inspiration and anything else they deemed of importance to know.

Students were required to present during conference events in each country, putting forward their ideas and perspectives as part of exploring the debates in which they were engaged. The project provided rich sources of inspiration that challenged students’ current thinking and made them reflect on their own actions as consumers of fashion and future industry professionals, through problem based learning. Their ownership of the issues they had recognized and investigated provided the intrinsic motivations to continue autonomous learning toward their work and to critically evaluate the design and business practices of the apparel industry.

The results of the project were recorded and disseminated by all participants through social media, daily blogging and the specific Connect project webpage that collated a rich variety of examples and perspectives on sustainable innovation. On days that there are no presentations due to activities or travel, videos from each institution were released. The goal was to have some content uploaded to the dedicated web page every day for eighteen days while the group was traveling from site to site. This allowed for students and faculty at the home institutions to follow the journey, read about the issues and ask questions.
A unique hashtag was also developed so that the visits could be followed in real time. It was expected that the students would document much more than they posted. The outcome became a global perspective of sustainable innovation in the field of fashion.

**The Connect Experience**

In visiting each country the representatives of the Connect project (1) explored local, small and medium sized firms and not-for-profit organizations that champion social responsibility, upcycling, supply-chain transparency and new fashion business models and (2) presented at sustainability events in each university that invited practitioners, entrepreneurs and the academic and student participants to offer perspectives on the importance of sustainability for the apparel industry and debate its future.

The visits were determined by the host instructor with a focus on sustainability. Numerous resale shops were visited, each with a different style, target market and business plan. The participants visited three museums (UK, CH, AUS), a conference (UK), a garment and household textile recycling facility (US) and attended (AUS) Fashion Week. They also partook in a series of workshops on upcycling t-shirts and old jewelry and the use of natural dyes. Shopping districts with small retail shops were visited as well as small and large scale manufacturing firms. In between, historic or tourist sites specific to each location were visited and participants documented unique street styles, observed different merchandising techniques and discussed commonalities/differences among the countries.

During the project there were numerous examples of how the theory of PBL was emerging during the practice of the project itself in the context of cooperative learning and international collaboration. One of the projects initial visits was to a Salvation Army consignment store in the United States. This visit immediately involved the team learning about
clothing waste, recycling and re-sale. It showed the huge amount of valuable textile waste
generated in this geographic area alone, with the Salvation Army’s sorting operation receiving
around 9 tons of clothing per day. The re-sellable clothing was separated and went to one of ten
local Salvation Army thrift stores; the poorer quality textiles were bailed and sold on for
recycling. The experience was not only real-world, but had a significant impact in terms of
visualizing what 9 tons per day of waste textiles looked like. It triggered much debate and
exploration of the consumer and consumption systems that produce such waste, prompting
students to reflect on over-consumption in the apparel industry.

This experience was the first sign of several elements important to PBL emerging in the
practice of the project. First, the students from each university immediately began to collaborate;
discussing the issues between themselves and with academic facilitators to start to make sense of
new learning and construct meaning(s) around it. This sparked a series of learning questions that
each of the students began to explore, which began the cooperative learning seen
throughout the project. The enlightenment that the visit provided produced the intrinsic motivations implicit in
engaging with real problems through experience and the freedom to discover and investigate the
issues unprompted. It is suggested that PBL should make learning “personally meaningful”
(Allen, Donham & Bernhardt, 2011). The view of the overwhelming amount of textile waste
made the issue apparent and very personal to the students.

Linked to this, one of the requirements of the project was to blog about the experiences in
the project so each student recorded and reflected on their learning. This was planned into the
project because the reflective requirements of the blog keeping and live entries made during the
project provided a vehicle for the students to relate their knowledge to prior understanding and
construct meanings around what they have experienced by identifying gaps in their knowledge
and defining learning goals as a result. Blogs are also an excellent means of facilitating recording
of reflective thoughts rapidly, post-activity (Chhabra & Sharma, 2011). The following quote
perhaps illustrates how the experiences were personally meaningful for the students:

The sheer volume of donations is mind boggling – an amazing 18,000 pounds a day –
however, only a small portion is usable (roughly one garment per pound). It was amazing
to hear that very little is sent to landfill, with unsaleable products sold and sent overseas
in bales, and badly damaged items sold as industrial rags – both of which generate
revenue to fund the charity operations. – Quote from AUS student’s blog. (Connect
Project Blog, 2015)

A conference being held at the UK university was a highlight of the trip for the
participants. A variety of fashion professionals spoke about issues they believe are important for
the future of the fashion industry. One of the speakers, Sass Brown from the Fashion Institute of
Technology in NYC and author of Sustainability in Fashion Design and Eco Fashion, discussed
the disruption of the system of fashion by looking at each stage of the supply chain in a new way
to determine what can be done differently both in terms of sustainability and ethical
responsibility. Brown also left the audience with a thought on how to quantify success by stating
“Rethink what a successful company is – is it one that is international and making loads of
money and product or is it a small company who is supporting two dozen people and their
families and creating sustainable product?”

Also at the conference was Orsola de Castro, co-founder of Fashion Revolution and the
upcycled brand From Somewhere which uses pre-consumer surplus from garment manufacturing
houses and textile mills to create unique garments. De Castro discussed that the scraps from a
manufacturer could be thousands of yards and still be too little for them to use in their main
collections. De Castro asked the audience, “Every piece of clothing we wear is made by human hands. Do you know who made what you are wearing?” This led to a discussion of de Castro's work with Fashion Revolution which is a movement that came about after the Rana Plaza building collapse (Bangladesh) in April of 2013. Fashion Revolution hopes to reconnect people to the processes and impacts involved in making our clothing – the supply chain is a series of relationships, not machines. In her closing statement, de Castro stated that “sustainability should just be called common sense.”

Students had been briefed that they would be required to deliver a presentation on the fashion styles and culture in each of their home cities while in the UK. This goal in their learning and the experiences in the project also motivated the students to work together and problem solve toward meeting self-defined standards and content, as the brief was entirely open and had no assessment associated with it. The drivers for students own learning goals were that they were challenged to present alongside professionals and academics on similar subjects during the conference to an audience of their peers. This saw the students actively engaging in developing flexible knowledge that could be used to underpin their presentation and be prepared for questions about the alternatives, supporting research and considerations that they had evaluated in constructing their presentations. The experience raised their confidence in problem solving and presenting their ideas as part of a broader debate on sustainable fashion innovation. Working with professionals and some leading speakers on sustainable fashion the UK leg of the project, such as Brown and de Castro, gave the students a further opportunity to develop their thinking.

The US student blogged:

The speakers were incredible. They all spoke about things that they believed were issues in the fashion industry, which is something that I believe all students should be
Some of the large things that were discussed were on the same lines of our project of sustainability; expose the supply chain, avoid design colonialism, respect cultural codes, produce products with care, inclusive beauty, anti-fashion, and engage yourself. Each topic is huge and the speakers did a fantastic job on teaching everyone at the conference more about each of their subjects.

Tomorrow is when myself [sic] and my other student colleagues in the project speak at the second day of the conference with more guest speakers. We will all be focusing on Sustainability; wish us luck! (Connect Project Blog, 2015)

The China part of the project saw the students presented with the issues of contextualizing what they were learning in a different cultural context (at least for three out of the four students). The added complexity was the scale of China’s potential consumption and its rapid economic growth and prosperity. In the context of this, the students also directly explored the ideas of applying ancient Chinese traditions, such as natural dyeing in the context of modern fashion design during a collaborative hand-dyeing workshop. A big part of Chinese fashion design is still rooted in tradition, and many of the traditional ways of making garments are inherently sustainable; making use of natural methods and materials in a ‘slow fashion’ process. The students furthered their knowledge and SDL through exploring methods and practices and transcending communication and cultural barriers as part of cooperating toward their learning. This was demonstrated when students discussed sustainability during an open interview with a leading Chinese lingerie manufacturer and their head designers. The UK student blogged:

[Company name] who approaches design with the environment in mind, [the company] interestingly takes environmental factors such as pollution in mind when developing their fabrics, with the aim of producing garments that are friendly on the body’s skin. This is
evidenced more than anything in the brand looking into manufacturing lingerie using bamboo and milk fibres.

This product innovation, rather than sustainable innovation, is also seen in the company releasing the typical four season collections per year, with new garments added to lines every single month. With that said, production is made to order, meaning manufacture of their products is kept to the quantity for which they have been commissioned, ensuring minimal over-production and thus less over stock. (Connect Project Blog, 2015)

The final leg of the project was in Australia and an open forum with a question and answer format was scheduled. This event tested what the students had learned, with questions coming from both student and professional attendees as part of a panel discussion. The students were able to answer complex questions on fashion sustainability with confidence, articulating new knowledge about complex sustainability issues and giving real world applications and research to support to their answers. Each student was able to explain different perspectives and understood each other’s interests and expertise. They demonstrated what they had defined as their own personal learning goals, as each had taken different pathways through the complex sustainability problems based on their perspectives and interests. This strongly resonated with the idea that cooperative learning results in “distributed expertise” because collaborators divide up problems into domains that enhances problem solving and promotes shared knowledge construction (Sroufe & Ramos, 2015, p. 163).

**Evaluation and Discussion**

The four students were assigned to write reflective statements about their experience on the trip. The reflection was scheduled after the project had concluded so students would have
time to internalize the experience and determine what the greatest benefit was to this experience. They were also asked how they might change this project in the future.

Participants used adjectives such as “inspiring”, “eye-opening” and “crucial” to describe their experience. The participants felt that the experience informed and expanded their knowledge of sustainability as it pertains to the fashion industry. Indeed, the US student stated that “The Connect project was the pivotal point in my college career. It helped me to grow as a student and future professional” (Connect Project Blog, 2015).

A major theme throughout this trip was that small businesses were approaching sustainability from a model based on necessity because it was actually easier to implement as a small business. Small production runs, using waste or scrap fabric, creating garments that focus on long term style and not “fast fashion” were only some of the ways the small businesses worked. This observation led one student (CH) to comment “I believe that if we spent all our money on independent designers, it would be a big step towards sustainability and would help cultivate a more sustainable attitude” (Connect Project Blog, 2015). Another student, from Australia, stated that

Over the course of this trip it became apparent that smaller businesses are often far more sustainable than larger, mass-market retailers. However, this was often not a conscious choice, but rather out of necessity due to their more limited resources and increased need for efficiency. We were fortunate to visit a number of such businesses across all four countries and learn about their individual efforts towards sustainability, both intentional and unintentional. (Connect Project Blog, 2015)
Students interviewed owners and workers at retail locations, the conference speakers as well as independent designers. The participants were impressed by many of the people they met in each country. As one student stated,

Their passion and drive was catching and I believe it to be an asset that I could never have obtained from purely my own research, yet it is something that I think will help me in both my future studies and my career. – quote from AUS student. (Connect Project Blog, 2015)

This experience was exciting and challenging for all the participants. The US student stated that she gained courage and professionalism through this trip and was able to learn in ways that no classroom could ever offer. When asked about the future of this project, two of the students were emphatic about changing the focus from what is currently happening in the industry to a solution based perspective.

Many people are disheartened to the point where they feel helpless and simply tune out. I believe it is essential to focus on solution-oriented discussion, including looking to best practice fashion businesses for inspiration, as well as discussing and developing innovative ways in which companies can make meaningful changes. – quote from AUS student. (Connect Project Blog, 2015)

This conversation has to continue with a solution based approach. We need to concentrate on analyzing different approaches [to sustainability] with regards to their effectiveness and power to fundamentally change and/or disrupt the current system. – quote from UK student. (Connect Project Blog, 2015)

The students had spoken of being disheartened about the state of the fashion industry, with one participant telling us that she had been thinking about changing her career direction.
before going on this trip. Often classes may focus on the destruction the fashion industry is involved in – pollution of rivers due to chemicals, over-consumption and waste of materials, use of pesticides and more. This experience allowed the participants to see, experience and meet many people who are interested in changing the face of fashion and trying to create fashion with meaning.

So, from a personal perspective, after having the opportunity to witness fashion in practice across the world, I feel the Connect project’s biggest success has been in its ability to generate genuine interest in the current and future issues related to the apparel industry. It has allowed me, my fellow Connect students, and those who attended any of the talks given in connection with the project, start to question the industry we have dedicated ourselves to, as well as develop a desire to bring forward solutions to the problems discussed. This is something Orsola De Castro poignantly put forward during her talk by saying “You are part of the solution”. - quote from UK student. (Connect Project Blog, 2015)

Discussion

The PBL structure on which the Connect project was based allowed the students to accumulate a wide range of knowledge toward sustainable fashion innovations in a broad range of areas. The student’s learning, evaluation and retention of the issues and their conversion from information to knowledge and practice was strongly evidenced by their actions and the summative reports they each delivered after the project completion. The students were motivated, collaborative and began challenging the facilitators’ knowledge and understanding toward the end of the project. This signified a deeper level of learning; routed in ownership of the problems and issues and discovering solutions through experimental learning approaches in
cooperation with those around them. Each student demonstrated the extent to which they had
developed extensive flexible knowledge and could adapt and critically reflect on a range of
sustainability issues when challenged about them. The evidence of the success of the project was
in the student performance itself. The students engaged in the project as a team and supported
each other in the learning process. The students took all opportunities to interact with peers,
professionals, experts and formed a community of learning both real-world and online, creating a
social network toward sustainable fashion innovation. Each student self-regulated their learning
and defined what to learn, using time and resources as needed. Critical to the success of the
students learning was the planning and scaffolding for learning through the projects planning
which the academic facilitators provided.

The Connect student’s blogging and the daily information uploaded to the dedicated
website also provided knowledge and points for discussion at each home institution. The students
liked this method of knowledge dissemination as it allowed their classmates to ask questions and
keep up with the experience and vast amounts of information being gathered. This wider reach
was important to the developers of this project to allow as many students as possible to take
advantage of this learning activity.

In short, over the eighteen day period, the students learned a lot about their industry, its
global nature, and, in particular, the need to move toward sustainable business models, reduce
consumer consumption of textiles and the waste it generates. The project linked the importance
of ethics intertwined with garment workers labor conditions and poor production practices,
providing a “big picture” of the many changes and interventions required toward finding
solutions to a variety of complex issues.
The Connect project made a significant contribution to the debates and developments toward sustainable fashion innovation and was engaged with by a number of leading thinkers around fashion sustainability that linked up with the project via its communication channels and not only provided an example of how to construct and execute a successful international collaboration based on a PBL structure, but one that also used social media and blogging to broaden the inputs and potential for research and facilitation by a wider audience on an open basis. The information uploaded to the shared webpage has generated a rich learning resource that can now be used to develop teaching resources and create a learning collaborative that can be used as a platform to scale up participation and the wide dissemination of the projects outcomes.

**Impact and Project Outcomes**

The objectives of the Connect project were threefold and the first objective was to generate interest and enquiry surrounding the issues which affect the global apparel industry, the environment in which we live and our future. Industry experts, fashion activists, academics and students, brought together by the Connect project, achieved Objective 1 through discourse and debate. An intensive eighteen day period served to maintain a focus on the topic of sustainability in the apparel industry and as this related directly to their chosen field of study it was perceived by students to be both relevant and impactful to their future careers. The broad span of speakers and exposure to information from across the globe generated awareness of the implications for the environment and the future.

Each academic from the participating institutions delivered a lecture on fashion consumption in the US/UK/Australia, thereby providing a broad view of consumption from different cultural perspectives. This helped the students and our web audience to better
understand the scope and scale of the problems and challenges that face our industry, the focus of objective 2. Overconsumption became apparent as the common theme of discussion and firmly established the scope and scale of the challenges facing the apparel industry in creating a sustainable future.

Objective 3, to encourage students to become active in the campaign for a sustainable future, was realized through student involvement with the organization, Fashion Revolution. Students were keen to be involved with an active campaign and in the UK formed a “flash mob” to draw attention to Fashion Revolution Day held on the anniversary of the Rana Plaza disaster (April 24, 2015, about one month after the conclusion of the Connect project travels). In both the US and AUS, students participated by turning their clothes inside out, taking a "selfie" and twittering "who made my clothes". In addition a forum held in AUS was conducted with Wendy Savage, Manager, Supply Chain Social Responsibility & Traceability - Patagonia U.S. as the guest presenter. Savage outlined how Patagonia managed their supply chain to ensure ethical sourcing and traceability. This presentation was captured on video, then uploaded and shared onto the Connect webpage.

The Connect Twitter feed quickly attracted 428 followers and in the process gained the attention of fashion activists, politicians, journalists and celebrities engaged in implementing change. A faculty member and the student representative for Connect from the UK university were invited to participate in a parliamentary question time at the House of Lords to join the debate the issue of sustainability in the fashion industry. Hitchen (2015), Connect webpage manager, commented on twitter “Fashion communication can be a key disruptor, especially through social media”.

Challenges
Working across time zones, borders and cultures presented challenges. Educational semester structures and vacation times offered a narrow gap in which to collaborate, just as Australia returned from a summer vacation (winter to the other participants) in February, China entered its spring festival, both of these provided a short time frame before the United States and United Kingdom began their spring or Easter break. Additionally, shared information platforms were difficult to negotiate as not all participant countries share the same communication options.

China has the world’s largest Internet user base and is the most active country in terms of social media usage with more than 300 million people using it at any given time (Chiu, Ip & Silverman, 2012). However we found it a challenge to use social media while in China as the country does not support Facebook or Twitter, two of the platforms we were using to connect with followers. This issue served to highlight some of the cultural differences and imbalances that must be overcome in cross border trade and activity.

**Conclusion**

The Connect project not only provided an example of how to construct and execute a successful international collaboration based on a PBL structure, but one that also used social media and blogging to broaden the inputs and potential for research and facilitation by a wider audience on an open basis (Chhabra & Sharma, 2011). By explaining each of the five areas of PBL and reflecting on how they were implicit in the activities of the Connect Project an empirical example of an international collaborative PBL activity can be evaluated against PBL’s pedagogic theory.

The project established that learning about current business practices, interventions, and innovations that begin to reduce the demand, supply, production and consumption impacts of the apparel industry, requires a high level of research and analytical capabilities. Suárez-Orozco &
Qin-Hilliard, (2004, p. 6) state that “The skills needed for analyzing and mobilizing to solve problems from multiple perspectives will require individuals who are cognitively flexible, culturally sophisticated and able to work collaboratively in groups made up of diverse individuals”, which substantiates this conclusion. Not only is it important for fashion’s future professionals to gain a broad perspective of the industry they seek to enter, they must develop the requisite analytical abilities and intellectual agility needed to succeed in a globalized marketplace.

It is the responsibility of higher education in the field of apparel to provide the tools needed to make change in order to lessen the impact of apparel production and consumption. Institutions and individuals should develop, nurture, debate and contribute to knowledge and research, towards more responsible social and environmental practices in the fashion industry.

Students and faculty participating in Connect gained a unique perspective of the global apparel business. However, according to XXX (2015), co-founder of Connect, …perhaps the greater benefit of the project is in the capacity to take this experience, combined with projects and activities in each of the countries visited, and through virtual interface share knowledge, discourse, experiences and ideas. As a result, this has become a dynamic ongoing dialogue. Hundreds of students and academics have now been touched by the project. As each city hosted forums and shared intelligence, those attending and involved have become part of a larger global fashion community.

The valuable shared resource base initiated through the project will continue to grow, providing current material to support learning and teaching. Future collaboration between the partners will further enhance opportunities for students to gain an international perspective of their chosen industry.
References


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