Teaching Sustainability Through an Innovative Upcycling Design Project

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Over the last decade, sustainability has been pursued in various fields of study, especially the area of design. Many scholars have discussed what sustainability is, what can be considered sustainable design, and why sustainability is important. Many businesses have also tried to develop products and marketing strategies based on the philosophy of sustainability. Governments and non-governmental organizations (NGOs) argue that education is key to bringing about a transition to sustainable development (Huckle & Sterling, 2014). Although this is a topic that has been taught, discussed and argued about in many areas of society, it has not yet been treated as a main subject for academic courses in design education. Sustainability has been treated as a sub-topic that does not need to be covered in depth. Is this true, though? Students are more concerned about sustainability than educators think. Many design students have a great interest in sustainability and sustainable design. However, it should be more than just an interest; it must go beyond that. Sustainability education at the undergraduate level should build on best practices, such as project-based learning, experiential learning, and active learning (Allen-Gil, Walker, Thomas, Shevory & Shapiro, 2005). Alvarez and Rogers (2006) argue that sustainability education allows students to confront complexity, address multiple ways of interpreting sustainability, and apply their knowledge to real life. As educators, developing and providing a course that empowers students to be individuals whose knowledge, skills, and values promote sustainable ideas and behavior – and contribute to the local and global community – should be a priority assignment and have significant meaning.

This was designed as the final project in a required undergraduate course for the Apparel Design (APD) concentration. The main goal of the course is to create a professional design portfolio that demonstrates the student's abilities and is a platform for self-expression.

Project Implementation: The project was based on the concept of upcycling – not recycling. According to Janigo and Wu (2015) upcycling is, “repurposing lower-value items such as neck scarf to construct a higher-value end use item, such as a wrap skirt or halter top” (p. 77). Students were asked to find an old, shabby, useless material/product that they had but no longer used – it could be any type of material/product. They were asked to share the story of the original item – where they got, how long they had it, etc. – and the reason they decided to upcycle it (what its potential value was). Students sought design inspiration from resources both in and out of class. Before moving to the ideation stage, they watched a documentary about sustainability called “*The Next Black*”. This was not simply entertainment; it led them to think in new ways. Students were asked to answer questions, for example: “Do you think you understand sustainable issues deeply?”, “Are you interested in this issue?”, “What is your definition of ‘sustainability’ in fashion or ‘sustainable design’?”, “In your opinion, why do we need to consider ‘sustainability’ seriously and how you can practice that in your life, study, career, etc.?”. They also researched sustainable design ideas and products available in the market, for reference.

Two design ideas were generated through illustrated design boards and technical flats, which were created using Adobe Photoshop and Illustrator. They picked one of these ideas to create an actual product for the final project. Students gave a final presentation at the end of the semester, showing the design process from ideation to creation. They described how the product was useful, functional, and aesthetically pleasing.

Teaching Effectiveness: This was a project that had never been implemented in this APD course before. Students came up with creative ideas and successful final products. They shared what they had learned through this upcycling design experience at the end of the project and confirmed that it helped to enhance and broaden their knowledge of sustainability. It motivated them to take sustainable issues seriously both as design students and fashion consumers. They felt that sustainability is not only the industry's responsibility, but also part of business practices. One student said: *"As far as sustainability goes, as a college student and a design major, I have learned that everything has a cost but [am] learning to be more conscious of my waste and redefining what is a scrap. I learn to be a fashion scavenger than a fashion designer."*

Students said they were satisfied with their final products since they had created something practical so that they could use it. They also felt a strong personal attachment to the upcycled products since they were linked to personal stories. Everyone had special memories of their original items and felt a sense of accomplishment in bringing new life to them. *"In the long run, practicing sustainability in my brand will not only save the earth, but I think will give me leverage and separate my brand from others. It can allow me to reach a bigger target market,"* one student said. This showed that the project allowed students to develop a compelling statement for their designs, which made their portfolio unique and impressive.

Implications: This project focused on providing hands-on experience and enhancing students' problem-solving and design skills. It immersed students in the concept of sustainability and encouraged them to think about things they had but were not using, and how these could be brought back to life to make innovative, useful products. In the process of transforming old items, students also transformed their ways of looking at things. Students realized that designers have the ability to extract value from worthless, almost dead things and to resurrect them in fanciful, ingenious ways. Rediscovering the value in shabby things can be a great sustainability practice. Moreover, the project helped students to understand that the stories behind a design and product are critical and powerful.

To improve the project, technology and craftsmanship elements will be added in future. Upcycling focuses on the craftsmanship and creativity of individuals who are able to envision another purpose for an object. Students will develop a creative motif or pattern using Adobe Illustrator and Photoshop and will apply it to the old material/fabric using a laser cutter. This can be a part of the upcycling process, along with reconstructing a product. The innovative blend of technology and craftsmanship will enable students to create unique designs and improve the quality of their products in sustainable ways.

References

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