



Student-Centered Learning in Sustainable Label Development

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Sustainability in Apparel Products



- The apparel industry is arguably one of the most detrimental to the environment.
- Consumer concerns about environmental problems from unsustainable practices have considerably increased.
- To help resolve these problems from apparel production, efforts should be made by apparel producers, retailers, consumers, as well as educators.



Sustainability in the Curriculum



- Sustainability-related courses are limited in the current FCS curriculum.
- Need to help students be more knowledgeable and environmentally conscious as a consumer as well as a future professional in the apparel industry.
- We developed a research team with students to create an informative and consumer-friendly label with easy to ready symbol.

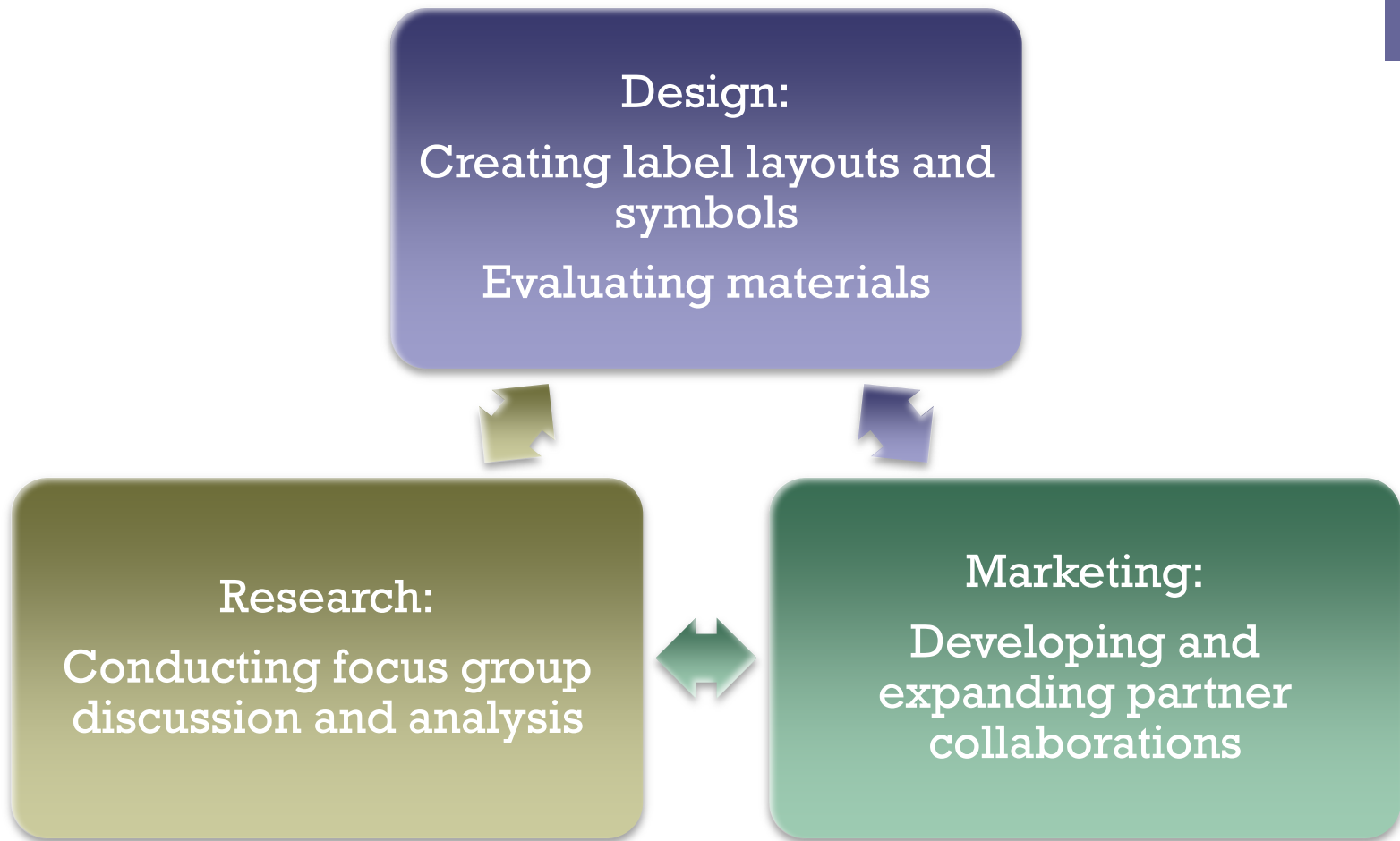


Procedure



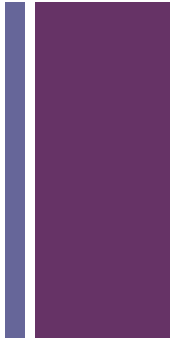
- Student researcher recruiting:
1 graduate student, 7 undergraduate students,
2 faculty supervisors
- Brainstorming:
idea generation, literature review, market research
- Weekly-meeting:
discussion of the team-based assignments

+ Creating an informative and consumer-friendly label for apparel products with easy-to-read symbol





Student Outcomes: In(green)dients label Design



■ Identifying six sustainable aspects & symbol designs



Organic: Harmful Chemicals and pesticides used to grow cotton threaten the health of the farmers and pollute the earth. Growing organically helps preserve the lives of these workers as well as wildlife & minimize the destruction of the environment.



Safely Dyed: Reactive dyes are harmful to environment, often causing respiratory problems & skin irritations. Safely dying methods help reduce the amount of harm to humans as well as environmental pollution.



Fair Trade: Fair Trade ensures that the producer is receiving fair pay, living conditions, and working conditions; as well as establishing a long-standing relationship with them. It also ensures that the product was not made using illegal methods & labor



Carbon Footprint: The average national household produces 7.5 tons of carbon dioxide annually which helps accelerate the issues related to global warming. Carbon footprints measure the amount of carbon dioxide emitted into the air & the impact it has on the environment.



Biodegradable: Biodegradable fibers reduce the concern of what will happen to a product after they will break down & decompose rather than remain another of earth's harmful pollutants.

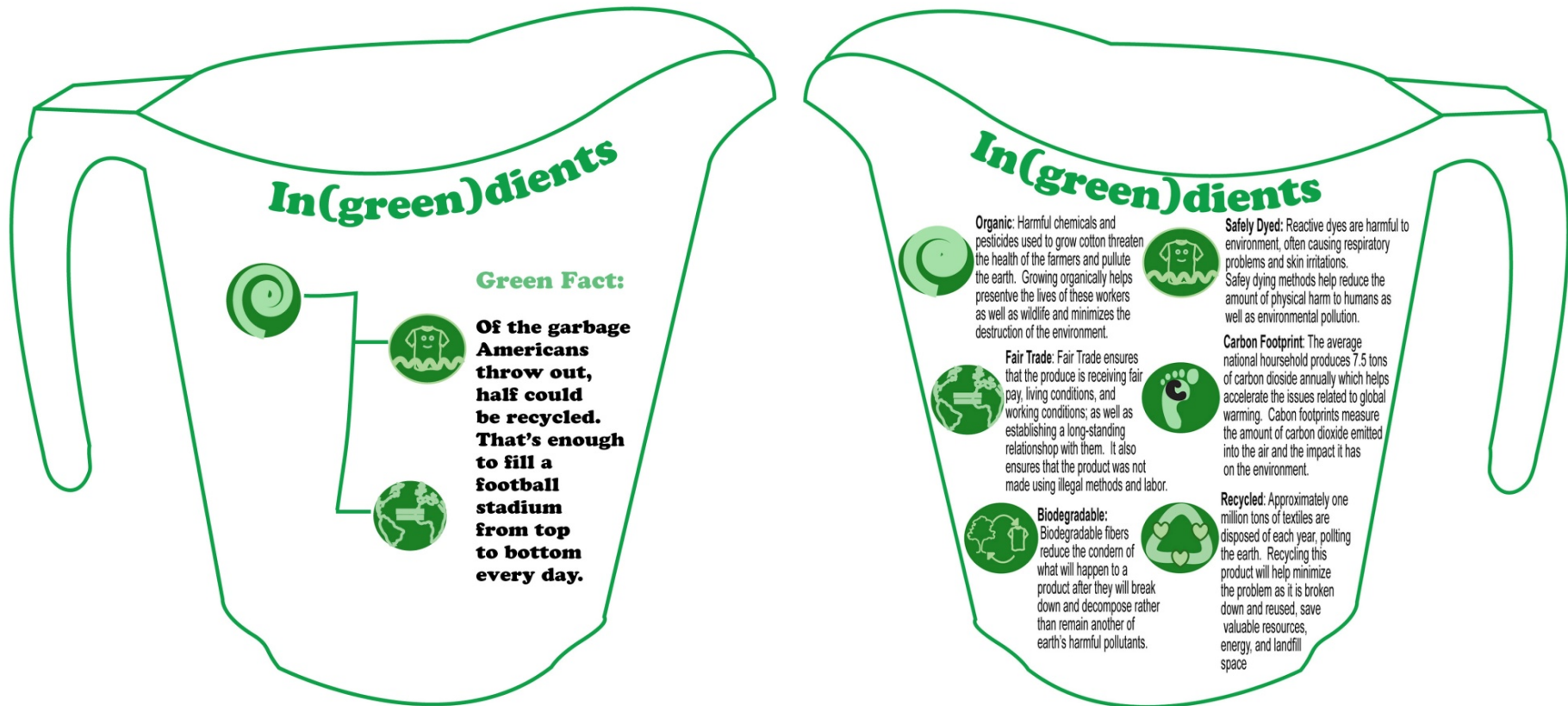


Recycled: Approximately one million tons of textiles are disposed of each year, polluting the earth. Recycling will help minimize the problem as it is broken down & reused, save valuable resources, energy, & landfill space.



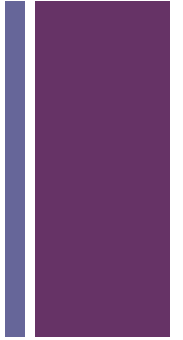
Student Outcomes: Design

■ Label layout design development





Student Outcomes: Design



■ Material evaluation:

- With two choices, a recycled paper, or a flower seed paper (contains seeds in the paper).
- Rather than just throwing away a clothing hangtag, our label can be planted.





Student Outcomes: Research



- **Focus groups:** to examine consumers' knowledge of sustainability issues, input on current green clothing labels, and opinions on the label prototype
 - Generating discussion questions
 - IRB approval
 - Recruiting participants
 - Conducting three focus groups
 - Transcribing the discussions
 - Analyzing the results



Student Outcomes: Marketing



■ Collaboration:

- Visiting local retail stores to find out potential partnerships
- Developing materials for meeting (official letters, label designs, agreement contract form, etc.)
- Making appointment for a meeting
- Presenting the project to managerial level.

■ Oops and Crossroads-Global Handcrafts



Student Outcomes: Design





Student Outcomes: Research



+ Students Feedback

■ Developing career skills:

...not many Undergraduates get an opportunity to be involved in a research project of this magnitude. I feel that by being involved in this project gives me more of a competitive edge because it makes me stand out from other students in my field.

I think that experience of starting a detailed project like this from start to finish will be very beneficial when trying to stand out in the job market.

The project is based around the concept of economically friendly textiles which is an upcoming market trend, which gives me a competitive edge because it shows I'm aware of market trends.

+ Students Feedback

■ Developing career skills:

I was responsible in keeping deadlines, which is an important skill in the professional world.

This project, as well as a previous green design project, has changed my view on how clothing design can and should be changed for the future.

The whole concept of sustainable design for clothing and how to communicate the benefits to the consumer is new and innovative, so to have experience dealing with these issues has changed my mindset and provided me with knowledge that I think will definitely provide me with an advantage in the job market.

+ Students Feedback

- Specific skills learned from the project: Collaboration

I think that I have acquired how to work in a group, working with others on a project, and learning to take criticism on something that I created.

I developed teamwork skills, initiative skills, and people skills from calling and talking to businesses.

It has opened my eyes more to the views of others. After listening to the focus groups, I heard a lot of comments I wouldn't have thought of. I will try to keep the ideas of other in mind in the future when thinking critically.

+ Students Feedback

- Specific skills learned from the project: Problem solving, Decision making

My ability to be an effective problem solver was benefited by doing this project because there were new problems and ideas that arose each time we met every week. There were always new issues and ideas that were associated with the prototype label. Every week the researchers made adjustments to the prototype in order to make it ideal to the consumer.

I can think about the problems longer and deeper.... I feel like I can make better decisions now because of being able to critically think about the different problems and solutions.

+ Students Feedback

- Specific skills learned from the project: Research skills

I wasn't one of the designated 'researchers' in the group, but I do feel my researching skills have improved nonetheless.

My confidence in this area has increased as a result of this project. I learned how to distinguish reliable and valid sources from the rest. I was able to communicate any research problems I had to faculty supervisors and learned where to look for relevant information.

I do feel more comfortable because I had never had experience in doing any research study before. Now, I have an idea of the proper steps to take in order to make the decisions and be able to participate fully. I have learned how to look at a topic and be able to research it better and feel like my research has been effective.



Conclusion



- Overall very positive students' feedback
- Good research experience with students
- Findings will be disseminated through international, national, and regional conferences.