

**Case Report***Copyright © All rights are reserved by Alexandra Howell Abolo*

The Uniform Project 2016 – 2023: A Guided Inquiry Approach to Understanding Overconsumption of Fashion Goods

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Received Date: July 03, 2024**Published Date: July 17, 2024****Abstract**

Between 2016 and 2023, a unique project was offered to undergraduate students studying fashion design and merchandising. For seven consecutive days, students were challenged to wear the same outfit, documenting their experience in written and photo journals. This project, originally inspired by Sheena Matheiken's 2009 "The Uniform Project," aims to bring the issue of overconsumption more directly into students' lives. Existing literature shows that consumers generally, and students specifically, demonstrate cognitive dissonance between their understanding of sustainability in the fashion industry and their actions. They often cite the problem of overconsumption while actively engaging in the practice.

Throughout the evolution of the project, the teaching method shifted from problem-based learning (PBL) to a more specific inquiry-based learning (IBL) approach. The guided inquiry approach helped students address the complex problem of sustainability in the fashion industry, particularly regarding overproduction and overconsumption. Student responses and outcomes to the project have always been strong. However, with the integration of IBL, students are demonstrating deeper learning on the subject matter and communicating a sense of agency about sustainability as a cornerstone of their fashion education. The ongoing project aims to inform fashion students about the complexity of sustainability in the fashion industry and build the agency to contribute to long-term meaningful change in the industry.

Keywords: Sustainability; Overconsumption; Guided Inquiry; Problem-Based Learning; Inquiry Based Learning

Abbreviations: PBL: Problem-Based Learning; IBL: Inquiry-Based Learning

Introduction

Sustainability in fashion curricula is nearly ubiquitous. The scope of what sustainability factors are covered vary greatly in both depth and breadth by institution. To that end, sustainability often becomes a buzz word in student lexicons, but carries little meaning beyond the classroom. Existing research suggests that consumer behavior and consumer action are incongruent [1,2]. There is dissonance between what college-aged students (18 – 22 years

old) know about sustainable practices, particularly as they relate to the fashion industry, fashion supply chain, and their personal consumption behaviors [3]. Students often perceive their behaviors as sustainable, noting their general knowledge of how the fashion industry is a top contributor to the climate crisis., "...students' comments confirmed that the project had helped them expand their awareness of how unsustainable consumption behaviors manifest

themselves both in theory and in practice” [3]. Student consumption behaviors are often contradictory, purchasing and disposing of fashion goods in rapid succession with little consideration to the lifecycle of a product [4]. Students frequently overconsume fashion goods, contributing significantly to the sustainability issues in the fashion industry.

Denoting the existing literature on the topic of fashion sustainability, cognitive dissonance, and behavior gaps the Uniform Project (UP) was developed. Originally offered in the fall of 2016, the project was adapted from Sheena Matheiken’s (2009) “The Uniform Project,” wherein Matheiken (2009) aimed to wear and style the same A-line dress for an entire year [5]. Matheiken’s original project came to fruition in the early days of internet virality, seeking crowd-sourced donations to fund children’s education in India. Matheiken sought to reinvent her daily look changing only the way she styled the A-line dress with thrifted accessories; her approach was inherently sustainable, not purchasing or disposing of any fashion goods.

After evaluating Matheiken’s work, I saw the potential to use this framework to help undergraduate students grasp overconsumption in the fashion industry. Matheiken repeated a single garment for 365 days, this idea seems outrageous in a system where the average American consumer produces 81.5 pounds of textile waste, annually. This is the byproduct of consuming more and disposing of garments more frequently, “the number of times a garment is worn has declined by around 36% in 15 years” [6].

En masse the U.S. generates 11.3 million tons of textile waste each year [7]. While these Figures are staggering, they often do not resonate, meaningfully to the student population. Matheiken’s worthy endeavor translated clearly as a project in a college course. Using Matheiken’s structure, to wear the same garment, and focus on not buying or wearing anything new. Students are challenged to repeat the same outfit for seven consecutive days, approximately 2% of the total time Matheiken repeated her own outfit. In the case presentation that follows, a more detailed overview of the project is presented [5].

Case Presentation

The following case presentation introduces the Uniform Project in its current format. The project is broadly organized into categories that are labeled in the project outline as steps. Step 1. The experiment and data collection; Step 2. Analysis of data; Step 3. Evaluation of data, responding to the research prompts; and Step 4. Submission of project. In Figure 1, the changes to the project year-to-year between 2016 – 2023 are presented and categorized recognizing the transition from PBL to IBL approach. In Figure 2 [8] phases and sub-phases of IBL are defined and categorized to demonstrate how IBL fits the Uniform Project, Figure 3. Lays out the organizational steps, actions, and instructions for the most recent project cycle, 2023. Finally, Figure 4 is the most recent grading rubric with the IBL phases categorized into the rubric standards.

Year	Step 1. The experiment and data collection	Step 2. Analysis of data	Step 3 Evaluation of data, responding to the research prompts
2016	Students wear the same outfit for five consecutive days. Their experiences are documented through open ended reflective journals and photo journaling. ¹	Students use the data collected through their journals, and photos to conduct a content analysis; aiming to identify consistent themes. Photos are used to emphasize findings.	Students write up their analysis as a formal midterm paper.
2017			
2018			
2019	Students wear the same outfit for seven consecutive days. Their experiences are documented through reflective journals where guiding prompts are provided and photo journaling. ²	Students use the data collected through their journals and photos to conduct a content analysis aiming to identify consistent themes. Students are provided guiding questions to help categorize their responses to provide a step in learning the process of analysis.	Students present their analysis in a slide deck over Zoom or recorded presentation. Students respond to a research question: <i>Examine the relationship between the industry’s push to overconsume and the responsibility of individual consumers.</i> The students use their analysis to form a response that relies on their experiences within the experiment and looks further to address the complex problem.
2020			
2021			
2022			
2023			

Figure 1: Changes in the Project Year-to-Year, 2016 – 2023.

Figure 2: Defining and categorizing the IBL framework phase in connection to the step in the *Uniform Project*.

IBL Framework Phase and Definition	IBL Framework Sub-phase and Definition	Uniform Project Step	Connection to Phase	Connection to Sub-Phase
(1) Orientation "The process of stimulating curiosity about a topic and addressing a learning challenge through a problem statement"		Step 1.	Students are presented with the complex problem regarding sustainability in the fashion industry and consumer cognitive dissonance and behavior gaps.	
(2) Conceptualization The process of stating theory-based questions and/or hypotheses.	<i>Questioning</i> , The process of generating research questions based on the stated problem. <i>Hypothesis Generation</i> The process of generating hypotheses regarding the stated problem.	Step 2.	Students are introduced to the project. Burns (2019) interrelationships in sustainability are presented.	Students begin initial research on the complex problem, beginning with <i>The True Cost</i> (2013) and then expanding outward identifying their own questions about the complex problems based on further individual research. Students engage Burns (2019) in relation to the complex problem and hypothesize based on their own consumption experiences.
(3) Investigation The process of planning exploration or experimentation, collecting and analysing data based on the experimental design or exploration.	<i>Exploration</i> The process of systematic and planned data generation on the basis of a research question. <i>Experimentation</i> The process of designing and conducting an experiment in order to test a hypothesis. <i>Interpretation Data</i> The process of making meaning out of collected data and synthesizing new knowledge		Students begin the experiment of wearing the same outfit for seven days. Documenting their experience through written and photo journaling.	Students are exploring their attitudes and behaviors during the project, addressing instances of cognitive dissonance or behavior gaps. Students analyze data addressing research questions. Students are drawing conclusions about their attitudes and behaviors throughout the seven days of the project.
(4) Conclusion The process of drawing conclusions from the data. Comparing inferences made based on data with hypotheses or research questions.		Step 3.	Students draft final analysis responding the overarching query based on the complex problem: Examine the relationship between the industry's push to overconsume and the responsibility of individual consumers.	
(5) Discussion The process of presenting findings of particular phases or the whole inquiry cycle by communicating with others and/or controlling the whole learning process or its phases by engaging in reflective activities.	<i>Communication</i> The process of presenting outcomes of an inquiry phase or of the whole inquiry cycle to others (peers, teachers) and collecting feedback from them. Discussion with others. <i>Reflection</i> The process of describing, critiquing, evaluating and discussing the whole inquiry cycle or a specific phase. Inner discussion" [8].		Students submit final analysis connecting individual findings to existing data curated by each student.	Student final analysis is reviewed and graded by course instructor. Students can emphasize areas of the rubric for which they want the most feedback aimed toward improving. Students conclude by reflecting on the project in group discussion.

Contextual guidance for how IBL framework fits into the Uniform Project.

Figure 3: The *Uniform Project* outline for the 2023 cycle.

Project Step	Action	Instructions
Step 1	In this experiment you are going to wear the same outfit every day for 7 days in a row.	<p>Over a seven-day period each student will complete a social experiment by wearing the same outfit. Students will document this activity through journal and photography. As we continue to explore the intricacies of the apparel supply chain, we will use our own consumption habits to examine one aspect of the fashion industry, overconsumption. Using information from the lectures, readings, and resources from weeks 2-5 we will conduct a participant observation using an ethnomethodological approach. The study itself is autobiographical in nature because you are going to study yourself in your natural environment.</p> <p>For each of the 7 days, you should make a minimum of 7 journal entries denoting your experience with repeating the outfit. There are some suggested reflective prompts below. You will submit these entries so be consistent about note taking and reflection. For each of the 7 days, you should take at least one picture of yourself in different locations. Arguably, this is mostly for fun, but it does enhance the experiment. You do not need to include your face if you do not want to you. You can include others in the images if selfies are not your thing. What I want us to avoid is 7 identical images standing in front of your dorm room mirror every morning. Use the images to take your experiment on the road! Again, remember the goal of the experiment is to conduct a self- observation in your natural environment, so you should wear the outfit everywhere you go (class, social gatherings, library, grocery store, friend's house, etc.)</p> <p>Write at least one reflection per day (feelings, anecdotes, personal reflection, analysis, etc.) These are suggested reflection questions, but not required: How are you feeling each day about the clothing? Has anyone asked you what you are doing (has anyone noticed)? Do you feel a strong urge to explain yourself upon entering a new group of people? What do you notice about not having to select from your closet each morning? Do you find wearing the same thing every day stressful? How do you feel about having so many different clothing options – does it give you pause? Do you think you will alter your buying habits in the future based on this project?</p>
Step 2	At the conclusion of the seventh day, you will gather all your notes and journal entries.	You will identify patterns within the information. Then respond to the three listed questions below reflecting on the patterns or consistencies you see in your notes: What aspects of the experiment were the most challenging? [be specific: were there times of day or social settings that were more challenging than others? why?] What aspects of the experiment were welcomed, or brought feelings of contentment, happiness, or joy? What was your experience interacting with others? Were there consistencies in your reactions? Did your interactions change based on the group?
Step 3.	Using your notes, journal entries, photos, and responses to the above questions, I want you to respond to this prompt in a 2-page essay.	A lot of what we learned up until this point in the quarter suggests that consumer participation and buy-in to a sustainable industry is necessary, however, individual consumers are not solely responsible for the current crisis. Examine the relationship between the industry's push to overconsume and the responsibility of individual consumers; cite 2 credible sources in your response. Note: this question is just asking you to examine, this does not mean you need a finding or result. In research writing, you are discussing an outcome. Caveats: if you have a required work uniform you can and should change into that.
Step 4.	Submission to Blackboard Learn	In a single document please submit the following: Notes and journal entries (handwritten notes may be scanned); Photographs; Responses to three reflective questions; 2-page essay; Works cited sheet with minimum of 2 credible resources.

The organizational steps, actions, and instructions for the Uniform Project in its most recent iteration, fall 2023.

Figure 4: Grading Rubric Fall 2023 with IBL Phases Categorized in Rubric Standards.

Criterion with IBL Phase	Below Standard	At Standard	Above Standard
Thesis/ purpose: (1) Orientation; (2) Conceptualization	Unfocused thesis, or purpose. Thesis/purpose unclear because the thesis statement appears in an illogical place.	Focused thesis, or clear purpose & approach. Thesis/purpose statement is contextualized and logically located.	Skillfully stated, coherent thesis or clear purpose. Thesis/purpose is contextualized as a natural outcome of the introductory discussion.
Clear organization and logical Flow: (2) Conceptualization	Parts of paper not clearly related to thesis, although information is usually relevant Ideas may lack clarity, sufficient development, or argumentation. Ineffective or inconsistent organization	Information is accurately represented and clearly related to thesis or purpose, but insight may be limited, or argument may lack full realization. Organization is clear & logical, though ideas and insights are not fully or consistently articulated. Some awkward transitions or misplaced information may undercut cohesiveness.	Specific support for the thesis or purpose Innovative approach to ideas and evidence, which is clearly linked to thesis and each other; structure is clear. Well-crafted sentences and paragraphs contribute to a cohesive argument.

Supporting evidence: (3) investigation	Insufficient credible or relevant evidence; evidence not clearly analyzed, explained, or applied.	Evidence is generally credible, relevant, and sufficient. Some attempt is made to analyze, Key questions posed but not addressed or analyzed thoroughly. Some conclusions and assertions presented but not well supported. Claims may lack clarity, relevance, development, explain, or apply the evidence.	Varied, credible sources; evidence is cogently analyzed, explained, or applied. Key questions and proposed analyses respond to and/or challenge thesis. Conclusions and assertions well supported.
Critical Thinking: (4) Conclusion; (5) Discussion	Little evidence of employing critical thinking methods.	Employs critical thinking methods with some confidence and skill.	Writer demonstrates a mastery of critical thinking methods relevant to the discipline.
Writing for an Appropriate Audience: (4) Conclusion; (5) Discussion	Unfocused, does not understand the	Identifies and directs writing to the appropriate audience.	Writer shows a nuanced understanding of the subject
Audience: (4) Conclusion; (5) Discussion	appropriate audience or does not write to any discernible audience.		matter and engages the appropriate audience.

Contextual guidance for how the Uniform Project is evaluated using the IBL framework.

Guided Inquiry, Problem-Based and Inquiry-Based Learning

In 2016, at the genesis of project development, a problem-based learning (PBL) approach was instituted. In PBL students are presented with complex problems often with meaningful real-world outcomes, the students are challenged to seek out resources, to find solutions to the problem" [9]. Compared to a more "traditional" approach where students often receive information from the instructor that layout a problem and provide structural guidance to help the students "solve" the problem. More to the point, students are reciting solutions often learned in a classroom with resources provided by their instructor. To address the complex problem of both sustainability in the fashion industry and the known dissonance and behavior gaps identified among student populations; engaging a PBL approach was logical.

Between 2016 and 2019, the Uniform Project was offered once per academic year for a total of four cycles. Outcomes from two of these cycles were presented at the International Textiles and Apparel Association (ITAA) annual conference in 2019, The Uniform Project Reimagined: An Introduction to Sustainable Fashion for Undergraduate Students.

A total of 35 (n=35) students participated in the project over the two semesters, submitting 245 journal entries and 175 photos. There are several thematic writing patterns that emerged from the student journals stress/anxiety, embarrassment, discomfort, feeling "dirty," acceptance, and realization. The outcomes of this project are largely positive as students demonstrably grow in their knowledge and understanding of sustainability in the fashion industry. The goal of this project is to help lower-level fashion

students gain exposure to sustainability concepts early on in their fashion education. The longer-term goal is that they will apply this knowledge to future coursework to improve sustainability in the fashion industry on a larger scale [10].

Feedback from this presentation assisted in improving the project moving forward. Notably, in initial iterations, engaging PBL, I was prescribing for the students' questions, research, and ideas which left outcomes to be narrow and canned, lacking full discovery. Further evaluation of PBL as a teaching method introduced inquiry-based learning (IBL). The IBL approach provided two significant changes to the project. First, offering students a guided approach to learning the subject matter and second providing greater latitude for discovery on the topic of overconsumption in the fashion industry; thus, allowing students to evaluate questions of dissonance and behavior gaps. The newer versions of the Uniform Project were offered between 2019 – 2023, including during the period of the pandemic (spring 2020 and spring 2021) utilizing an IBL approach.

The blue shaded area indicates that cycles of the project that solely utilized a PBL approach, and the purple shaded area indicates where transitions within PBL aimed to engage guided inquiry via IBL.

Holistic Sustainability

Just as the teaching framework evolved, the application of sustainable theory also evolved. Initially, the project looked at sustainability with a narrow lens, simply at the environmental impact of the overproduction and overconsumption of fashion goods can have. In this vein, students would watch The True Cost documentary, learning about the reaches of the environmental

impacts of the fashion industry. The Film aptly introduces social, cultural, and economic sustainability through the stories of global garment workers, farmers, and textile dyers and impacts on their lives. Utilizing, Burns LD [11] an emphasis on a multi-faceted framework of sustainability improved learning outcomes. The focus on the interrelationships between economic,

Pedaste, et al. [8] conducted a meta-analysis on inquiry-based learning utilizing n=60 research articles, resulting in the IBL framework that identifies five primary phases of inquiry supplemented by seven sub-phases [8]. At the conclusion of the 2021 project cycle, this framework was mapped onto the existing project. The project was then amended to align with the IBL framework created by Pedaste, et al. [8] to achieve the optimum outcome for the Uniform Project. This new IBL orientated project was offered in the 2023 cycle to significantly positive outcomes.

The original ideation of the Uniform Project from 2016 was adapted between cycles, however, when aligning the project with Pedaste, et al. [8]. IBL framework, the most significant change occurred in phase four, "conclusion, the process of drawing conclusions from the data. Comparing inferences made based on data with hypotheses or research questions" [8]. The notable change from previous iterations of the project was that the students were providing an analysis without any guiding questions. True to the original PBL outline, they aimed to address the large complex problem. However, as the IBL process is structured through Pedaste, et al. [8] the students have latitude to explore within a guided inquiry, thus the query, Examine the relationship between the industry's push to overconsume and the responsibility of individual consumers, allows students some structure for their responses. In the evaluation section below further exploration of each phase as they align with student outcomes is presented.

Project Outline

The current iteration of the Uniform Project was offered during the 2023 – 2024 academic term in a first-year fashion design class that covers sustainability within the fashion supply chain.

Evaluation

The evaluation of the project is vested five primary areas, as listed below, thesis/purpose; clear organizational and logical flow; supporting evidence; critical thinking; writing for an appropriate audience. As referenced above in the introduction this project transitioned from one that was developed with PBL approach to one now utilizing guided inquiry IBL. The transition of this teaching method created grading categories that align best with the IBL framework.

Students are evaluated on the rigor of their inquiry and not a scale of completion of the experiment overall. The benefits of this create a deeper student investment in the project and willingness to experiment, research, and write with earnest that is divested from the grading outcome. In the discussion I will explore outcomes of the project for which students have failed to complete the experiment timeline but demonstrated a depth of understanding in the meaning of their failure connecting it back to the complex

problem of overconsumption in the fashion industry.

Discussion

The importance in examining the changes in the project from its inception in 2016 to the more recent iteration in 2023 demonstrates the value in moving from a PBL-based project to an IBL-based project. Student outcomes and understanding evolved with these changes. As Pedaste, et al. [8] indicates the purpose of IBL is to develop knowledge on a subject to further exploration [8]. In the case of sustainability in fashion, students at the introductory level are better equipped to carry this intellectual curiosity forward, now armed with learning skills that give them agency in the process.

Student outcomes from the changes in this project are significant beginning 2016 and continuing today. In the analysis done in 2019, students often cycled through emotions in the project beginning with anxiety and ending with content often linked to a growth in knowledge or a meaningful change in behavior, "The final two themes acceptance and realization generally come together for a majority of the students at the end of the project. Students begin to examine the amount of clothing they have in their closets" [10]. By integrating IBL into the project students can more meaningfully question why they are driven to purchase more fashion goods. This recognition, minor on the surface, demonstrates a deepening understanding that the corporation and the consumer are responsible for the overproduction and overconsumption of fashion goods.

This expansive understanding of sustainability in the fashion industry, allows students to think more critically about their fashion education and work toward more meaningful change for a sustainable future. This is best evidenced by students who cannot complete the experiment. Commonly, there are usually a small proportion of students who give up on the experiment. Their abandonment is not subversive, often I find these analyses to be the most insightful. These students are questioning why they gave up, what social and environmental influences, both internal and external, brought them to this point. Due to the nature of IBL, students have the latitude to explore the topic and investigate, as Pedaste, et al. [8] describes in phase Give, sub-phase "reflection, The process of describing, critiquing, evaluating and discussing the whole inquiry cycle or a specific phase" [8].

In the most recent iteration of the project, 2023, a student wrote in their essay that they just "gave up," because they recognized the dissonance in their behavior. The student described a hunger for the end of the project to begin selecting new clothes and styling new outfits. To which they acknowledge, is the problem of overconsumption in the fashion industry. This student concluded by examining their design practice and how they might contribute to change in the industry, and ways they may continue to uphold some standards that are counterproductive to the sustainability movement overall.

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Conflict of Interest

Author declares no conflict of interest.

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