USING PARTICIPATORY ACTION RESEARCH TO IMPROVE STUDENT OUTCOMES IN FASHION SUSTAINABILITY EDUCATION

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ABSTRACT

Using participatory action research (PAR) the current, ongoing, study aims to engage undergraduate fashion students at two U.S. institutions of higher education in extending their understanding of sustainable fashion. Through data collection processes wherein the students act as both researcher and participant, they will self-report on their clothing purchase and disposal habits. Upon completing of the data collection period, students will engage in a reflective process through group discussion with the aim of coming to conclusions about the growth of their own knowledge through this experiential learning assignment. The research question guiding this study asks, does participatory action research (PAR) improve student understanding about sustainable practices in the fashion industry?

KEYWORDS

Education, Fashion, Participatory Action Research, Pedagogy, Sustainability

1. INTRODUCTION

Sustainability in fashion curricula is nearly ubiquitous. The scope of what sustainability factors are covered vary greatly in both depth and breadth. To that end, sustainability often becomes a buzz word in student lexicons, but carries little meaning beyond the classroom. This creates a troublesome dynamic where faculty are preparing students for an industry that is a major contributor to the current climate crisis, but students are under prepared to advocate for change, "textile production is one of the most polluting industries, producing 1.2 billion tonnes of CO2 equivalent (CO2e) per year, which is more emissions than international flights and maritime shipping combined" (*Energy, Climate Change & Environment: 2016 insights*, 2016; as cited in *A New Textiles Economy*, 2017, p. 20). Furthermore, American consumers continue to robustly participate in the fashion economy, apparel purchases increasing 60% between 2000 and 2014; the life of the garments in U.S. households lasted only 50% as long (Buzzo & Abreu, 2019). The gap for undergraduate fashion students is not in understanding the gravity of the current situation, but rather how to enact meaningful change in their field of study. Undergraduate students demonstrate cognitive dissonance about clothing usage, consumption, and disposal relative to the impact it has toward the climate crisis. Notably, the current generation of undergraduate students are the most aware and vocal about the damages of the climate crisis (Tyson, et al., 2021). The purpose of the current study is to utilize participatory action research (PAR) to engage undergraduate students enrolled in fashion design and merchandising courses in understanding their impact on apparel and textile usage, consumption, and disposal.

1.1 Research Question

Does participatory action research (PAR) improve student understanding about sustainable practices in the fashion industry?

2. BODY OF PAPER

2.1 Literature Review

Informed by Jestratijevic & Hillery (2023) this study expands the "clothing mountain." First, exposing students to their habits with clothing purchase and disposal, and further asking students to analyze what materials their clothing is made of, where their clothing is being made, and from who they gather new information about apparel and textiles. Ultimately, leading to the "will," asking student to reflect on their willingness to change.

To execute on this process, researchers employed participatory action research (PAR) because it engages participants as researchers in the process (Chevalier & Buckles, 2013). In this study undergraduate students enrolled in two fashion courses at separate institutions, act as both researchers and study participants. This research method emphasizes a focus on a need for change within a community and inquiry is driven by the members themselves. Utilizing PAR aims to reduce cognitive dissonance or general apathy toward clothing purchase and disposal among students studying fashion at the university level. Further, employing the Burns (2015) model of sustainable pedagogy provides a framework for a more meaningful data collection and analysis process. Chevalier & Buckles (2013) indicate the purpose of PAR centers on community change guided by members themselves; Burns equally emphasizes the goal of change through transformational learning, "The central goal of this model is to provide opportunities for transformational learning, in which learners are motivated and inspired to shift their values, and make sustainable and authentic changes in their own lives, and within their communities and places" (Burns, 2015, p. 263). Using these frameworks cohesively creates a landscape of student-centered-and-driven data collection and analysis.

2.2 Sample

Undergraduate students enrolled in a textile science course at a midsize, metropolitan university on the East Coast, institution A, and in an introduction to fashion merchandising course at a large land-grant institution in Appalachia, institution B.

2.3 Methods

Over a 5-week period, January 9 to February 12 2023 students (n=69) contributed information on a privately shared excel file about their clothing consumption and disposal habits, denoting the following information, a description of the garments purchased, the cost, the reason for their purchase, a description of the garments disposed of, initial cost of the garment at purchase, the method of disposal, and the reason for disposing of the garment. Students were asked to research their current wardrobes, investigating their three most worn clothing items, denoting the following information, a description of each item, the country each item was made in, and the fiber content of the garment or accessory. Students reflected on where they get the most information about apparel and textiles, denoting the following information, the name of the media side and the author, creator, or account handle. Finally, students were asked to respond to the qualitative reflection question, will I change my apparel purchase, consumption, and disposal habits after participating in this project; why or why not? At the conclusion of the data entry period, all student names were removed from the excel file to maintain confidentiality.

On February 14 and 16, 2023 each group of undergraduate students engaged in a guided discussion about the outcomes of the excel data (questions listed in table 1). The discussion format intended to enable students to hear from their peer group at institution A and B, respectively. On February 14, 2023, students at institution B recorded group responses to the questions using the virtual software Canva. Those recorded responses were shared with students at institution A. On February 16, 2023, students at institution A, listened to the recordings, and then completed their own reflective responses. All groups' responses were analyzed for nascent themes grouped by questions listed in table 1.

Excel data are analyzed for frequency, average, and purchase reason; the total number of garments purchased, the average total cost of each garment category, the range in amount (USD) spent within garment categories, and purchase reasoning were totaled and organized between participants responses as "want,"

or “need” (Table 2). This analysis process is ongoing for disposal of garments, fiber content and country of origin, and information gathering about apparel and textiles.

Table 1. Small Group Discussion Questions

Did tracking your buying habits change the way you make clothing and accessory purchases in the future? Why or why not?
What are your disposal methods for clothing and accessories, and why do you choose those methods?
Do you feel more informed about the fiber content and country of origin of your clothing and accessories; and will that impact future purchases? Why, why not?
Are most of your clothing and accessories purchases from a need or want? Explain.
Do you ever experience buyer's remorse? If so, what do you do with those clothing and accessories?
Considering the media sites you use to gain information about clothing and accessories, do you see any correlation with what you buy based on that information?
Do you ever feel like the media sites you gain fashion information from are compelling you to make a purchase? If yes, why?
What specifically about this project impacted your relationship with clothing the most?

Table 2. Student Tracking Journal – Excel Data

Category	Total Number	Total Cost	Average Cost	Range	Reason for Purchase
Bottoms	26	$749.00	$28.80	$149.50	20 Wants 6 Needs
Jeans	5				
Sweats/leggings	8				
Skirts	3				
Pants/cargo	6				
Shorts	4				
Tops	39	$216.00	$5.54	$69.00	32 Wants 7 needs
T-shirts	10				
Tank top	5				
Sweatshirt/hoodie	6				
Button up blouse/shirt	4				
Sweater	4				
Other /fashion tops	10				
Dress	8	$182.00	$22.75	$39.00	4 wants. 4 needs
Outerwear	20	$850.00	$42.50	$102	15 Wants. 5 needs
Accessory	7	$184.50	$26.36	$56.50	3 Wants 4 needs
Shoes	9	$990.00	$110.00	$251.00	8 wants 1 need
Sneakers	5				
Other	4				
Undergarments	1	$15.00	$15.00	$15.00	1 need
Other	3	$42.00	$14.00	$6.00	3 wants
Thrifted	20				
Total	116				

2.4 Findings and Discussion

Initial analysis indicates that students enrolled in these courses actively participate in the data collection process. A total of n=70 students are enrolled courses at Institution A and Institution B, and there was n=42 usable data entries. Students' responses were removed from purchase data if they entered "zero purchases" for the allotted period, this accounted for n=22 students. During informal discussion at Institution A with students about nothing purchased, many students referenced the recent holiday and financial pressure to not spend money in the new year, as reasons for not making purchases. Furthermore, during the small group discussions on February 14 and 16, students reiterated some of those reasons for not purchasing items.

2.5 Exploration of Consumption Habits: Purchases

From January 9 through February 12, students at institution A and B, purchased 116 total items, 22% or 26 items categorized as "bottoms" (jeans, sweats/leggings, skirts, pants/cargo, or shorts); 33% or 39 garments categorized as "tops," (t-shirts, tank top, sweatshirt/hoodie, button up blouse/shirt, sweater, other/fashion tops), 17% or 20 garments categorized as outerwear, 6% of 7 items categorized as accessories, 8 garments categorized or 6.89% as "dresses," and 3 items or 2.5% categorized as other. There were 9 items or 7.75% categorized as shoes, (sneakers or other). 20 of 116 garments or accessories purchased (17%) were thrifted. The total number of purchased items is relatively low for the student population enrolled. Based on analysis from the small group discussion it appears this number is intentionally low, students making conscious decisions to purchase less or infrequently. In total, students spent $3,228.50 (USD) on garments and accessories within the period of the study, students spend the most on shoes, $990 (USD), outwear, $850 (USD), and bottoms $749 (USD). The most spent on one item was shoes, $260 (USD) and the least was bottoms at $.50 (USD). The purchased items were also categorized by want or need, 86 wants and 28 needs; purchases categorized as needs were for weather, work, or functionality.

The purchase analysis reflects the small group discussion where students expressed an understanding about the negative impact of hyper consumption the clothing industry has on the global economy. Notably, students expressed various relationships to this reality, some expressing fervent beliefs "There is no ethical consumption under capitalism," (student from institution B), and others with more practical approaches, students at institution A explained not having the disposable income to continually purchase new clothes, and therefore had fewer garments, and purchased less. Students in both groups expressed desires to keep purchased items longer, and repair and mend items when damaged as a means of product lifecycle longevity. Through small group discussion students also explored the relationship between need and want driven clothing purchases. Students at both institutions expressed the feeling that at times wants are categorized as needs based on external influences such as social media, social environments, or appealing advertisements. Similarly, students recognized that they had experienced buyer's remorse, and that was tied directly to not wearing an item they purchased and feeling badly about it. However, students responded in equal measure that they continually try to purchase more consciously to avoid such outcomes. It is notable that students responded to the final reflective question with continued confidence that participating in this study was eye opening in some ways, but moreover reinforced what they already knew. Students at institution B, indicated new ways they planned to change some purchase habits such as not purchasing, purchasing secondhand, or abstaining from purchasing polyester as a means for improvement.

3. CONCLUSION

This ongoing study provides an expanded framework for helping students understand their clothing purchase and disposal choices that reflect their knowledge regarding sustainability in the fashion industry. While expanding on the clothing mountain, reported by Jestratijevic & Hillery (2023), the current study limited the scope of information collected and analyze to be manageable for student researchers in a single academic term. Initial analysis indicates that students who participated in this study as both researchers and participants have improved understanding about sustainable practices in the fashion industry. This is evidenced through ideas about how purchase habits can change and improve to have a more lasting impact on the industry overall. Further analysis on disposal, garment knowledge, and information gathering will expand on this result and

guide authors toward future inquiry. An expansion of this study should extend multiple academic terms with a variety of undergraduate institutions. This extension would increase participant diversity in multifaceted ways and provide more data for richer analysis.

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