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A New Culture Embracing Sustainability for Apparel and Textiles Educational Programs

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Keywords: social change, consumer education, apparel and textiles, behavior change, sustainability education

Abstract: This paper examines an interdisciplinary body of literature to highlight social change theory and its significance to apparel and textiles educational programs in promoting change in behavior towards a sustainable future. This research concludes consumer education is needed and that education can create social change.

Introduction

Adult educators in today's diverse world face many challenges. There are numerous theories and philosophies to consider for the development of personal vision statements and practices. Bierema (2010) explains, that social justice has long been claimed as a key value of adult education, making education an important variable in correcting social ills, such as poverty and inequity through an analysis of power and privilege. The purpose of this paper is to examine social justice theory and its significance to apparel and textiles educational programs that promote change in behavior towards a sustainable future. This paper analyzes how education can be utilized to change society and to provide suggestions for implementation through curricula design. An interdisciplinary body of literature is examined within the context of how the apparel and textile industry's controversial use of manufactured fibers and toxic synthetic dyes impacts the environment and workers to exemplify the need for consumer education and social change. The study focuses on these primary objectives (1) to provide a review of adult education's social reform perspective, methodology and theory, (2) to identify variables influencing consumer's purchasing behavior, and (3) to suggest adult education strategies for apparel and textiles programs to improve current curricula.

Curriculum and Social Change for Apparel and Textiles Students Significance for Apparel and Textile Industry

The textile industry holds a powerful position in today's world economy. It provides more employment opportunities for people than any other business segment (Kunz & Garner, 2007). In the past, corporation's decision making process was influenced by economic, business, government, and political perspectives. In recent years corporations have increasingly been held accountable to include social and labor perspectives. Some concerned consumers are politically active, hoping to create awareness to improve conditions (Kunz & Garner, 2007). Greenpeace International (2012) asserts consumers have an opportunity to "detox" the textile industry through the influence of people power. If consumers and future professionals reject products that contain hazardous chemicals, they can influence large retail and textile corporations to end unhealthy practices.

Textile manufacturing processes are often criticized for their negative impact on the environment and human rights. Even though many textile manufacturing processes have been improved, more proactive measures are needed. In order to find a long-term solution, corporations need to be held accountable for their actions. Educational institutions have the opportunity to reach consumers and future professionals so as to educate and promote sustainability awareness and social justice to initiate change in behavior by empowering individuals through knowledge and education.

Today's trends in active wear support the use of manufactured fibers with special performance features, and a selection of bright colors. Manufactured fibers are "any fiber derived by a process of manufacture from a substance that at any point in the process is not a fiber" (Kadolph, 2011, p. 23). Production of manufactured fibers and synthetic dyes results in extremely large water usage and contamination. Employees handling dyes during the dyeing process often have skin irritations, chemical burns, and can develop lung disease and cancer (Niyogi & Strother, 2011). Often times these workers live in the surrounding areas, where the only water source available is the contaminated river or stream. The textile industry has one of the largest carbon footprints due to the use of synthetic dyes and production of manufactured fibers (Stone & Carson, 2010). Synthetic dyes are cost efficient, colorfast, and produce a wide variety of colors, but chemicals used for their production are often highly toxic. Researchers demand action from the textile industry. The textile industry must take immediate action and change their ways, because they have "been condemned to be the world's worst environment polluters" (Kant, 2012, p. 24).

Connell and Kozar (2012) indicate that the textile industry has responded to the United Nations call for the development of increased sustainability awareness. Extensive research centers on the removal of pollutants. Kant (2012) endorses the use of activated carbon for the removal of effluent, but concludes that combining different removal methods can yield better results. Ratnamala et al. (2012) recommend the use of red mud, a by-product in the production of alumina. Their research centers on utilizing and enhancing the absorption process of the readily available red mud to remove toxic "Remazol Brilliant Blue dye from aqueous solutions" (Ratnamala, et al., p. 6197). Mojsov (2013) explains that through the implementation of biotechnology, the use of enzymes can aid the decomposition process of dyes. While these proposals are valuable, they do not offer a solution to the problem, they only address repercussions. The main problem is the use of toxic synthetic dyes.

Sustainability is defined as "a form of development that offers basic environmental, social, and economic services to all members of the community without endangering the viability of the natural, built and social systems on which the provision of such services depends" (Villar, 2008, p. 136). Promoting such sustainability means current growth patterns must be changed and adapted to new models (Villar, 2008). Stone and Patasalides (2010) proclaim this is a worldwide problem, which can only be solved by a worldwide effort.

Research aiming to find a plausible substitute for synthetic dyes is sparse. There are five classic natural dyes, indigo, madder, cochineal, weld, and cutch. A spectrum of colors can be achieved by combining these natural dyes, but they are not as colorfast or bright as their synthetic counterparts. They are essentially carbon neutral and can be grown by organic methods to further increase benefits for the environment (Natural Dyes, n.d.). Substituting with natural dyes and fibers could considerably improve current concerns. Even though there is still a dependency on chemicals, the negative impact on the environment would be mitigated.

Adult Education in Tradition of Social Justice

A diverse body of adult education literature addresses social justice. Elias (2004) proclaims radical or critical adult education remains outside the mainstream of educational philosophies, even though according to Johnson-Bailey, Baumgartner, and Bowles (2010) the embodiment of social justice in the field of adult education seems implicit. Kasworm, Rose, and Ross-Gordon (2010) define social justice as the belief in equity and equality of educational access, support, and impact upon adults and their communities. They further state that this belief is at the heart of adult education practice and ethics.

The definition of social justice takes on a different meaning for each adult educator. Social justice is reflected on how adult educators write, research, and educate, therefore much depends on the educator's view of themselves in their cultural and societal setting (Johnson-Bailey et al., 2010). Smith (2010) proclaims that adult educators who teach for social justice admit that teaching and learning are always political, social, psychological, and economical acts and that one has to address each of these aspects to provide a systematic way to facilitate change.

Elias (2004) states there is enough truth in the radical's contention for education to act as a creator rather than simply being a creature of the social order. Johnson-Bailey et al. (2010) explain that adult educators may invoke concepts of social justice or reference a wide variety of social justice issues, but have varying understandings and several different points of departure. They clarify, there are two main social justice perspectives; one declares that society should be guided by a right and moral position and adult education exist within such framework, while the other emphasizes actively working towards equality through elimination of power relationships striving to change society. Their view of social justice is based on the assumption that learners, policy experts, and adult educators understand society's inequities, and use their personal and collective agency to eliminate wrongs. They do not elaborate on how learners come to the realization and understanding of inequities and injustices.

Newman (2014) adopts Freire's belief and views consciousness as a constant expression of will and meaning-making, and explains that acting on new understandings generates learning, concluding that action and learning is inseparable. Mezirow (1978) uses the term transformational learning and explains incremental transformation is the result of small shifts of meaning-making occurrences causing a shift in meaning perspectives over time. Independent from the descriptive word, the core value in transformational learning theory is that people question their assumptions and existing knowledge bases, and cognitively reevaluate and assign new meaning schemes to adjust or correct existing schemes (Williams, 2002).

Consumer Education

An important area of emphasis in consumer education over the past several decades has been the issue of sustainability. Lange (2010) states, adult education is both a long-term solution and primary lever that can link existing way of living to a new ecological sustainable and socially just future. Sustainability, encompassing environmental, social, and economical aspects, needs to be an integral part of today's educational system.

"True change is never sudden; it is slow" (Dass, 2007, p. 5). Dass (2007) explains today's society links happiness to possession by measuring happiness with the ability to buy. Consumers demand things and industries provide them at the lowest possible cost, but humankind has responsibilities and obligations to the world it lives in. There cannot be gain without payment and reparation of injustice. He believes politicians and industrialists are no more responsible for creating the ecological and social disasters as is each person inhabiting this

world. We must look at long-term solutions to achieve ecological justice, so that social justice can be gained.

Redman (2013) suggests that schools can lead the way towards sustainability by providing a supportive atmosphere for sustainable behaviors and create social change. According to Sandeen (2009) current sustainability efforts by educational institutions encompass three main areas: (1) academic programs, (2) campus organizations, and (3) communication and marketing. Many institutions incorporate sustainability topics, but few integrate sustainability throughout the curriculum by asking faculty to address sustainability within all classes (Sandeen, 2009). She further proclaims adult educators need to adopt an assertive and proactive position on sustainability.

The importance of integrating sustainability into apparel and textiles curricula has long been recognized. Studies show that even though students gain knowledge and become aware of sustainability issues, they seldom change their purchasing decision or practice (Connell & Kozar, 2012). Redman (2013) confirms that traditional education efforts have been inadequate in fostering transformative change. She clarifies; the traditional approach is teacher-centered and emphasizing individual achievement at the cost of positive societal outcomes.

Adult Education and Behavior Change

Cultural differences play an important role in today's global society and consequently to adult education. In order to gain an understanding for other cultural perspectives, one must first understand his or her own culture and adopt a critical stance towards values, goals, and practices (Merriam, 2010). Educator's views of themselves in their cultural and societal setting influence their professional identity development. Educating for sustainability requires learners to develop skills to become change agents with real-world challenges through explorations that engage multiple ways of knowing and investigate beyond plain knowledge (Redman, 2013). Brown (2004) suggests building students' confidence and ability to work for collective change, by increasing their tactical awareness and acknowledgement of what "is" and what "ought to be."

Redman (2013) and Freire (1990) agree that the teacher-student relationship is very important, and that a student-centered approach incorporating dialog and self-reflection are crucial in creating a lasting change in behavior. Freire (1990) explains that teachers are co-investigators in the student-teacher relationship. His praxis includes helping learners investigate their own thinking about reality and their reaction upon reality. Freire (1990) proclaims true investigative thinking can only occur when learners collaborate and seek out reality together as a community.

Social action occurs when people come together and act collectively to bring about action resulting in social change (Kasworm, et. al., 2010). "Thematic investigation is expressed as an educational pursuit, as cultural action." (Freire, 2005, p. 110). Environmental justice is an important part of social justice. It encompasses environmental hazards for all races, ethnic groups, socioeconomic groups, and the preservation of natural resources (Lange, 2010). Large-scale problems, such as the controversial use of synthetic dyes can better be addressed and solved when organizations combine their efforts. Apparel and textiles programs should form inter-organizational relationships with the textile industry to occupy a new social space defined by the commonalities of the partnering bodies.

Conclusion and Future Research

Educators as role models need to promote and demonstrate sustainable behavior. Modeling desired behaviors such as wearing clothing made of natural fibers, dyed through non-

toxic processes, and produced by companies known to apply socially just practices demonstrate commitment. In order to create change, students have to realize and comprehend the consequences of their own actions, and actively participate in the process. Problem-posing methods and collaboration help students understand and analyze existing power relations of internal and external stakeholders and the overall complexity and interconnectedness of the fashion business. There is an obligation to make a difference and rethinking and reorganizing higher education curricula is a major factor in becoming a social change agent. Every educator has the opportunity to plant a sustainability seed into student's minds, which in the long-run can result in social change.

References

- Bierema, L. (2010). Professional identity. In Kasworm, C. E., Rose, A. D. & Ross-Gordon, J. M. (2010 ed.). *Handbook of Adult and Continued Education* (pp. 135-145). Thousand Oaks, CA: Sage Publications.
- Brown, K. M. (2004). Weaving theory into practice: Preparing transformative leaders for social justice. *Scholar-Practitioner Quarterly*, 2(2), 13-37. Retrieved from <http://search.proquest.com.er.lib.k-state.edu/docview/61923317?accountid=11789>
- Connell, K. H., & Kozar, J. M. (2012). Sustainability knowledge and behaviors of apparel and textile undergraduates. *International Journal of Sustainability in Higher Education*, 13(4), 394-407. doi:<http://dx.doi.org/10.1108/14676371211262335>
- Dass, N. (2007). Where have we strayed to? exploring the links between ecology and the way we live. *College Quarterly*, 10(1), 1-6. Retrieved from <http://search.proquest.com.er.lib.k-state.edu/docview/61934508?accountid=11789>
- Elias, J.L. & Merriam, S.B. (2004). *Philosophical foundations of adult education*. 3rd edition. Malabar, Florida: Krieger Publishing Company.
- Freire, P. (1990). *Pedagogy of the oppressed*. New York, NY: The Continuum Publishing Company.
- Greenpeace International. (2012, January 1). The Big Fashion Stitch-Up: How big brands are making consumers unwitting accomplices in the toxic water cycle. *Toxic Thread*. Retrieved June 19, 2014, from http://www.greenpeace.org/sweden/Global/sweden/miljogifter/dokument/2012/Toxic_Threads_The%20Big_Fashion_Stitch_Up.pdf
- Johnson-Bailey, J., Baumgartner, L. M., & Bowles, T. (2010). Social justice in adult and continued education: Laboring in the fields of reality and hope. In Kasworm, C. E., Rose, A. D. & Ross-Gordon, J. M. (2010 ed.). *Handbook of Adult and Continued Education* (pp. 359-349). Thousand Oaks, CA: Sage Publications.
- Kadolph, S. J. (2011). *Textiles*. (11th ed.). Upper Saddle River, NJ: Pearson Education, Inc. publishing as Prentice Hall.
- Kant, R. (2012). Textile dyeing industry an environmental hazard. *Natural Science*, 4(1), 22-26.
- Kasworm, C. E., Rose, A. D. & Ross-Gordon, J. M. (2010 ed.). *Handbook of Adult and Continued Education* (pp. 93-112). Thousand Oaks, CA: Sage Publications.
- Kunz, G. I. & Garner, M. B. (2007). *Going global: The textile and apparel industry*. New York, NY: Fairchild Books.
- Lange, E. A. (2010). Environmental adult education: A many –voiced landscape. In Kasworm, C. E., Rose, A. D. & Ross-Gordon, J. M. (2010 ed.). *Handbook of Adult and Continued Education* (pp. 305-315). Thousand Oaks, CA: Sage Publications.

- Merriam, S. B. (2010). Globalization and the role of adult and continued education: Challenges and Opportunities. In Kasworm, C. E., Rose, A. D. & Ross-Gordon, J. M. (2010 ed.). *Handbook of Adult and Continued Education* (pp. 401-409). Thousand Oaks, CA: Sage Publications.
- Mezirow, J. (1978). Perspective transformation. *Adult Education Quarterly*, 28(2), 100-110.
- Mojsov, K. (2013). Role of biotechnology in textile industry: A review. *International Journal of Marketing and Technology*, 3(10), 206-220. Retrieved from <http://search.proquest.com.er.lib.k-state.edu/docview/1461375662?accountid=11789>
- Natural Dyes. (n.d.). Retrieved June 12, 2014, from <http://dyespigments.standardcon.com/natural-dyes.html>
- Newman, M. (2014). Transformative learning: Mutinous thoughts revisited. *Adult Education Quarterly*, 64(4), 345-355.
- Niyogi, A., & Strother, J. (2011). Dyeing, Printing and Finishing. *Encyclopedia of Occupational Health and Safety*. Retrieved June 18, 2014, from <http://www.ilo.org/oshenc/part-xiv/textile-goods-industry/item/886-dyeing-printing-and-finishing?tmpl=component&print=1>
- Ratnamala, G. M., Shetty, K. V., & Srinikethan, G. (2012). Removal of remazol brilliant blue dye from dye-contaminated water by adsorption using red mud: Equilibrium, kinetic, and thermodynamic studies. *Water, Air and Soil Pollution*, 223(9), 6187-6199. doi:<http://dx.doi.org/10.1007/s11270-012-1349-4>
- Redman, E. (2013). Advancing educational pedagogy for sustainability: Developing and implementing programs to transform behaviors. *International Journal of Environmental and Science Education*, 8(1), 1-34. Retrieved from <http://search.proquest.com.er.lib.k-state.edu/docview/1413414584?accountid=11789>
- Sandeen, C. (2009). It's not easy being green: Green marketing and environmental consumerism in continuing higher education. *Continuing Higher Education Review*, 73, 93-113. Retrieved from <http://search.proquest.com.er.lib.k-state.edu/docview/815959783?accountid=11789>
- Siegel, D. J. (2010). Why universities join cross-sector social partnerships: Theory and evidence. *Journal of Higher Education Outreach and Engagement*, 14(1), 33-62. Retrieved from <http://search.proquest.com.er.lib.k-state.edu/docview/822508322?accountid=11789>
- Smith, R. O. (2010). Facilitation and Design of Learning. In Kasworm, C. E., Rose, A. D. & Ross-Gordon, J. M. (2010 ed.). *Handbook of Adult and Continued Education* (pp. 93-112). Thousand Oaks, CA: Sage Publications.
- Stone, B., & Carson, A. (2010, October 10). All about environmentally safe dyes. *Bright Hub*. Retrieved June 14, 2014, from <http://www.brighthub.com/environment/green-living/articles/90502.aspx>
- Stone, B., & Patasalides, L. (2010, August 6). Examining the textile carbon footprint: What is the environmental impact of the textile industry?. *Bright Hub*. Retrieved June 14, 2014, from <http://www.brighthub.com/environment/green-living/articles/73624.aspx>
- Villar, A. M. (2008). Vocational training and the environment: Sustainability and employment. *European Journal of Vocational Training*, 44(2), 132-161. Retrieved from <http://search.proquest.com.er.lib.k-state.edu/docview/61975836?accountid=11789>
- Williams, T. (2002). Transformative learning: Adult learners and the September 11 terrorism incident in North America. Retrieved from <http://eric.ed.gov/?id=ED470833>