Sustainability Education in Textile and Apparel: A Web-Based Content Analysis

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Keywords: sustainability, education, university, curriculum

Sustainability is a composite view of diverse and interwoven themes related to human welfare, economic growth, and the natural environment. Inclusion of education for sustainable development is a crucial paradigmatic shift within higher education (Deale et al., 2009). The United Nations declared the decade (2005-2014) as the time for education in sustainable development (UNDESD, 2011). As of January 2016, 499 educational institutions worldwide signed the Talloires Declaration, a blueprint for incorporating sustainability in learning and teaching (ULSF, 2016). Sustainability in higher education is explored in several fields (Chawla, 2015; Wu et al., 2010); however, information on sustainability within the context of the textile and apparel (T&A) curriculum is limited. This study examines how sustainability is integrated in the T&A curriculum. Study objectives are: 1) to develop an overview of sustainability education in T&A in U.S. institutions, including the type of sustainability content most often taught, 2) to explore whether more courses in sustainability are offered in (a) higher ranked institutions, (b) institutions with graduate programs, and (c) institutions offering more courses in general, and 3) to explore whether sustainability is taught more in specific T&A subject areas.

For data collection, 69 educational institutions were selected from the 2015 U.S. rankings of the top 50 fashion merchandising and top 50 fashion design schools and colleges by www.fashion-schools.org; 31 institutions appeared in both lists. Web-published curriculum of each department/school was analyzed through content analysis following methods used in other fields such as management (Chawla, 2015; Wu et al., 2010). Sustainability courses were identified when a sustainability-related theme was found within the course description. Sustainability-related themes were adopted from Wu et al. (2010). Also coded were the T&A subject areas (e.g., design, social psychology), the frequency of sustainability themes found in course descriptions, and institutional data (program ranking, offering of graduate program, and total number courses offered). A coding manual was prepared and discussed to improve consistency between coders. All the cases were coded by two coders and Cohen's Kappa scores were above 90% indicating good interrater reliability.

Results show a total of 3,200 courses were offered by 69 institutions in fashion merchandising and fashion design; 129 sustainability courses (4.03% of courses) were offered by 38 (55.1%) institutions. Institutions offering a higher number of sustainability courses were University of Delaware (24), Fashion Institute of Technology (14), University of Cincinnati (11),

and Kansas State University (7). Sustainability content mentioned in the course descriptions were sustainability (64 courses), social responsibility (43), ethics (30), environmental safety (16), human rights/labor issue (13), ecology/ecosystem (10), and cultural diversity (7). Sustainability courses are taught in T&A subject areas of industry/consumer (66 courses, 51.2%), fashion design (34, 19.8%), textile science (12, 9.3%), social psychology/education (7, 5.4%), and history/culture (2, 1.6%). Correlation results show both an institution's rank in fashion merchandising (r=-.319, p=.024) and rank in fashion design (r=-.286, p=.047) were negatively related to the number of sustainability courses; however the number of total courses (r=.434, p<.001) was positively related to the number of sustainability courses. In t-test results, recycle/reuse (t=-6.196, p<.001) was more often taught in the textile science area; sustainability (t=-4.566, p<.001) was more often taught in fashion design; cultural diversity was more often taught in social psychology/education (t=-4.839, p<.001) and history/culture (t=-4.209, p<.001); and social responsibility (t=-3.074, p<.01) and ethics (t=-2.837, p=.005) were more often taught in the industry/consumer area.

In conclusion, sustainability is being integrated within the curricula of T&A programs in the U.S. Over half offer at least one sustainability embedded course in their curriculum. Higher ranked institutions in fashion merchandising and fashion design provide more sustainability-related courses. Institutions with graduate programs do not necessarily provide more sustainability courses than others, indicating institutions focusing on undergraduate education also have concerns on sustainability education. A natural match between subject area and specific sustainability theme is observed (e.g., cultural diversity and history/culture). There is a need to offer the holistic view of sustainability within a course. As more fashion programs are incorporating sustainability content into the curriculum, curricular learning competencies and assessment strategies should be studied.

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