



Infusing Environmental Sustainability into Textile and Apparel Curriculum: Professional Development Needs for a Discipline in Transition

Melody L. A. LeHew, Kansas State University, USA, Cosette M. Armstrong, Oklahoma State University, USA, Kim Y. Hiller, Kansas State University, USA

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In recent years there is evidence that apparel industry firms are beginning to acknowledge the environmental impacts of their products and processes. For example, the Sustainable Apparel Coalition (SAC) was founded by a group of apparel industry, trade, governmental, and non-profit organizations as a collaborative initiative to reduce the environmental consequences of the soft goods industry (i.e., water use and quality; energy and emissions; waste; chemicals and toxicity) as well as social and labor issues (www.apparelcoalition.org/desired-outcomes). As these and other industry leaders invest in and support change toward greater sustainability, the educational programs that prepare young textile and apparel (TA) professionals must evolve as well. Incorporating environmental sustainability competencies and learning outcomes into textile and apparel curriculum is becoming an imperative.

Infusing environmental sustainability into TA curriculum will require the collaborative efforts of multiple faculty members in a particular program. Sustainability education incorporates a “functionally linked complex of knowledge, skills, and attitudes that enable successful task performance and problem solving” (Wiek, Withycombe, & Redman, 2011, p. 204). Adding a single sustainability course in a curriculum will not adequately prepare future textile and apparel professionals to proactively address sustainability issues in the industry; an integrated approach throughout the curriculum is most effective (Sterling, 2004). Like any organizational level change, imbedding sustainability throughout textile and apparel curriculum will be difficult and may result in some resistance.

Resistance can be defined as any efforts that attempt to maintain the status quo or avoid change (Pardo del Val & Fuentes, 2003). A recent study (Armstrong & LeHew, 2012) investigated barriers to integrating sustainability into textile and apparel programs and the sources of resistance found were consistent with those listed in Pardo del Val and Fuentes (2003): direct costs of change, requires some sacrifice, in conflict with organizational values or embedded routines, and lack of necessary capabilities to implement the change (pp. 149-150).

The current study explores the impact resistance to change may have in the context of preparing faculty members in the discipline for the curricular transition necessary to infuse sustainability. There were three objectives: 1) to examine the relationship between resistance to change and TA faculty members’ interest in environmental sustainability professional development opportunities; 2) to investigate the relationship between environmental concern and professional development interest; and 3) to explore preferences for specific professional development delivery methods, the degree of time and financial resources faculty members were willing to expend on such opportunities. It was expected that those with higher levels of resistance would

be less interested in professional development opportunities and those with higher levels of environmental concern would be more interested. Likert-type scales were used for all variables of interest and an online survey was conducted using the membership of the International Textile and Apparel Association.

Statistical results did not support the expected relationship between resistance to change and interest in professional development opportunities - there was no significant inverse relationship ($r = -.060$, $n = 219$, $p = 0.379$). However, there was a significant positive relationship between environmental concern and professional development interest ($r = .228$, $n = 219$, $p < 0.01$). Upon further examination of the data, the mean score for environmental concern was on the high side (3.7 on 5 point scale). Perhaps the higher levels of environmental concern overcame some respondents' resistance to change and encouraged an interest in environmental sustainability professional development. Results indicate the majority of ITAA members responding are moderately (39%) to highly (55%) interested in environmental sustainability professional development opportunities, with preferences for workshops delivered at their own home institution as well as a resource database. Respondents preferred to expend little to no financial investment, and moderate levels of time investment.

Findings suggest that ITAA members, as represented by the sample, are definitely interested in learning more about environmental sustainability, especially those experiencing higher levels of environmental concern and despite varying levels of resistance to change. Therefore, to aid the integration of sustainability into TA programs, professional development programming should be created and disseminated to meet this demand. The challenge will be meeting the preference for face-to-face, on-site program delivery offered at a cost that represents a small financial investment for the faculty member.

Armstrong, C.M. & LeHew, M.L.A. (2012). The Integration of Sustainability in Textiles and Apparel Education: Key Stakeholder Narratives. *Proceedings of the International Textile and Apparel Association* (#69). Online publication: www.itaonline.org.

Pardo del Val, M., & Fuentes, C. M. (2003). Resistance to change: A literature review and empirical study. *Management Decision*, 41(2), 148-155.

Sterling, Stephen. 2004. Higher education, sustainability, and the role of systemic learning. In Corcoran, P.B. & Wals, E.J. (Eds.), *Higher education and the challenge of sustainability; Problematics, promise, and practice* (49-70). Dordrecht: Kluwer Academic Publishers.

Wiek, A., Withycombe, L., & Redman, C. L. (2011). Key competencies in sustainability: A reference framework for academic program development. *Sustainability Science*, 6, 203-218.