Textile and Apparel Students' Intolerance of Ambiguity in Comparison to Perceived Aptitude for Creativity.

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Purpose, Rationale, and Background. This pilot study examines textile and apparel (T&A) students' perceived aptitude for creativity and tolerance of ambiguity in comparison to non-T&A majors. Findings from this study will contribute to the research methods and procedures used for developing a model for understanding students' perceived level of tolerance of ambiguity in relationship to aptitude for creativity (AC). Tolerance of ambiguity is defined as "the tendency to perceive ambiguous situations as desirable" (Budner, 1962, p. 1). Tolerance of ambiguity enhances individuals' abilities to accept ill-defined problems and to consider the variability in problem solving options. Those uncomfortable with uncertainty may accept the first adequate solution rather than consider other options, reducing the likelihood of creativity or more appropriate solutions (Runco, 2007). Individual's tolerance of ambiguity, suggest enhanced personality traits of openness and creativity (Dollinger, Urban, & James, 2004). According to Jennings (2011), creativity is a part of the problem-solving process and a form of self-expression, influenced by group philosophies and other motivational factors, and exhibited through people and processes. Creativity in this study is based on the confluence theoretical approach, which argues that multiple components must connect in order for creativity to occur (Sternberg & Lubart, 1999). Creativity and tolerance of ambiguity are useful and effective responses to change and unpredictability (Runco, 2007). For example, in the T&A industry professionals must respond effectively to social and economic changes in the environment to maintain relevance and livelihoods (Jennings, 2011). Based on the understanding that individual's tolerance of ambiguity is related to other individual traits such as creativity, this study aimed to assess T&A students' perception of creativity in comparison to their levels of tolerance of ambiguity. Founded on expectations for future T&A professionals, this study investigated two hypotheses: *H1*: T&A students will have a greater tolerance of ambiguity than Non-T&A students. *H2*: T&A students self-rating of AC will be higher than Non-T&A students self-rating of AC.

Data and Method. Sixty-four (N=64) college students from a Midwestern university in a T&A focused program (n=29; 45%) and other random majors (n=35; 55%) completed a self-assessment survey on tolerance of ambiguity and self-perceived level of creativity. Forty-three (67%) participants were female and twenty-one (33%) male; forty-five (70%) White, eleven (17%) Black, four (6%) Asian, three (5%) other and one (2%) Hispanic; ages 18 to 45 years old. The 16-item Intolerance of Ambiguity scale was used to measure student attitudes about ill-defined problems and tasks (Martin & Westie, 1959). Negatively worded items were recoded. Higher scores indicate a greater intolerance for ambiguity while lower scores indicate a greater tolerance of ambiguity. This scale showed a reliability of .60.

Results and Discussion. First, utilizing Budner's (1962) scale with reverse coding, an independent samples *t*-test was conducted to compare T&A student's intolerance for ambiguity and non-T&A students' intolerance for ambiguity. There was a significant difference in scores for T&A students (M =59.862, SD = 7.940) and non-T&A students (M = 64.714, SD = 7.152). Conditions; t (62) = 2.570, p =.013. These results suggest T&A students have a higher tolerance of ambiguity than non-T&A students (H1 is supported). The significant differences in tolerance of ambiguity among T&A students may allow for enhanced assignments with ambiguous instructions, which may produce a greater number of creative outcomes. However, higher tolerance of ambiguity does not ensure creative outcomes, as many components need to interact to enhance creativity such as intrinsic motivation or domain relevant knowledge and skills (Sternberg & Lubart, 1999). Second, an independent samples *t*-test was conducted to compare T&A students self-rating AC and non-T&A students self-rating AC. Results for *H2* did not indicate a significant difference in scores between T&A students (M=5.38, SD=1.083) and non-T&A students (M=4.83, SD=1.043) though scores were higher among T&A students. Conditions; t (62) = 2.067, p=.043. T&A students lower than expected self-rating of creativity maybe an implication of the higher value these participants place on the importance of creativity in their field of interest or due to differences in perceptions of creativity. However, there was no significant difference in the two conditions, implying that T&A students interpret their level of AC relevant to others not in the T&A field of study, which could have important implications.

Conclusions. T&A students' higher tolerance of ambiguity may be an indication of their ability to succeed in the industry, which requires dealing with ill-defined problems. However, a teaching professional must challenge students in developing wider ranges of approaches to problem solving that will enable their creativity-relevant skills and perceptions of abilities. In future studies, alternative statistical methods may be more appropriate as well as an expanded survey related to student perceptions of creativity, tolerance of ambiguity, and the importance of creativity in the T&A field to acquire deeper insight of the differences.

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