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Learning in a Multidisciplinary Collaboration: A Case Study of Digital Textile Co-design for Apparel and Interior Designers

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In the co-design setting, apparel design student participants reflected in areas of Design Ideation (DI), Design Decision (DD), and Design Execution (DE). Most participants noted that DI involves inspiration, concept development, and collaborating to adjust to all collaborators. DD involves collaboration, adaptation, aesthetics selection, concept development, and target market research. DE involves organization, time management, collaboration, communication, challenges, and precision. Comparing to designing alone, participants reflected that creativity is absent in team work, especially when it comes to DD and DI. However, the co-design setting helps in eliminating strain on DD and DI due to the need to compromise and move forward in the design process. The most frequently encountered challenges in co-designing were achieving agreement in aesthetics, communicating ideas, and setting timeline for completion. Aside from the challenges, half of the apparel design student participants found that the co-designing experience was mentally stimulating, exciting, and their counterparts were helpful in the project completion. Further, **in engineered print visualization** using virtual 3D simulation, apparel design student participants found the 3D CAD tool (Optitex) exciting and helpful in “bringing ideas to life”. The tool allowed students to see how various designs lay on a body form or avatar and select the designs that are most complimentary to the body. Half of the participants also noted that their interior design counterparts were instrumental in providing feedback on print position, selection and how to coordinate prints for both dress and pillow products.

The study results suggest that apparel design students experience both challenges and benefits in co-designing with interior design students. Results also reflect the effectiveness of digital 3D visualization tools in achieve a rewarding co-design experience in engineered print design. However, this case study was limited in the setting of the apparel and interior design studio courses. Student participants from both sides were given limited time to build rapport and team culture in adaptation. They were also previously taught to design basic textile using different CAD techniques. These may have contributed to participants’ challenges in designating design tasks, managing workload, and executing final design ideas. In future, more explorations should focus on the soft skills of design and team communication in multidisciplinary settings and when using various CAD tools.

Reference

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