From Theory to Making: A Makerspace Approach to Teaching and Learning in Higher Education

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Abstract

This presentation shares insights into evolving approaches to higher education teaching through the integration of makerspace practices in an interdisciplinary humanities course. Offered since 2021, the course combines foundational content in learning psychology and the design of learning environments with hands-on use of digital design software and maker tools such as 3D printing, laser cutting, woodworking, and vinyl cutting.

Through experiential learning, students engage in creative processes that not only deepen conceptual understanding but also enhance confidence and reduce anxiety around open-ended projects. Reflections collected across semesters highlight common challenges such as managing complex design work within constrained timelines, as well as consistent appreciation for creative problem solving, collaboration, and community-building.

Importantly, the course environment fosters a reimagining of traditional power structures in higher education classrooms, shifting towards more egalitarian student-instructor dynamics. The presentation concludes with recommendations for expanding interdisciplinary makerspaces as transformative spaces for teaching and learning across disciplines in higher education.