History and Development of the CID Studio

(This summary is from Warr & West, in press)

In 2012, a group of university faculty members at Brigham Young University formed a Creativity, Innovation, and Design (CID) group (see http://innovation.byu.edu). Membership included faculty from across the university, and members met monthly to share ideas, discuss research partnerships, and promote creativity, innovation, and design on campus.

In the winter of 2014, several CID faculty members received permission to try teaching interdisciplinary courses on creativity, innovation, and design in the university library. The core development team included a librarian; faculty from the business, fine arts, and education school; and a consultant for the university’s teaching and learning center (see West, 2016). The space was to serve as a prototype of the kind of interdisciplinary collaboration that could exist if space and opportunity were provided. Surplus furniture was found and the space was quickly created by removing rows of books and inserting temporary walls. Nearby group study rooms were converted into spaces for smaller teams to work together (see Smart, Darowki, & Armstrong, 2019; Zaugg & Warr, 2018). Two courses were immediately moved into the space, an additional two courses were taught in the studio in the summer, five courses in the fall, and six classes the following winter. Table 1 outlines the courses taught in the space included in this study, including a breakdown by student discipline area.

A wide range of courses have been taught in the CID studio. Some classes met regularly in the space, while others utilized the studio for a few class periods. The studio was open to all students outside of regular class time. Additionally, a few projects, which we describe below, spanned multiple semesters.

Evaluation Results

An evaluation was completed of the first year of use in this design studio and was completed in 2015 and later published as Warr & West, in press. It reports feedback from students, faculty, and librarians associated with this design studio (librarians because it is situated in the library). The summary of this evaluation follows. A second evaluation was completed in 2018 about the usefulness of the studio for the library itself, and can be shared upon request.
Instructional Setting and Pedagogy

What you're trying to do is make a good product instead of just giving a good assignment, and so that makes it a different feel, your incentive is different, and it actually feels better when you finish.

~Advertising student

- This type of learning appeared to be more authentic and flexible than traditional college courses. Students customized the learning experience to personal goals. They managed their own tasks and deadlines.
- The nature of the projects motivated students: projects were practical, large-scale, team efforts that focused on serving others.
  You always have to come up with “What am I doing next?” because there’s not someone to tell you, “Here’s a list of things to do.” You have to figure it out for yourself.

~Student Director of ARG Project

- Accountability and grading was challenging in this setting. Many students said they focused on the projects and didn’t worry about grades. Other students were uncomfortable with the loose structure and said students did not feel enough accountability for their work.
- The instructor’s role in these courses was different from traditional courses. Students described teachers as mentors and consultants. Instructor examples showed students how to resolve problems.
- Because instructors did not give lectures, students had to find their own information and resources. Students obtained information from the HBLL librarians, guest speakers, field specialists, and government and corporate sponsors.

Meeting the BYU Aims
Student experiences in CID courses demonstrated substantial fulfillment of the Aims of BYU, particularly “Intellectually Enlarging,” “Character Building,” and “Leading to Lifelong Service and Learning” (“Aims of a BYU education,” 2014).
Intellectually Enlarging

Teamwork and interpersonal skills.

It is so useful, and it is so ahead as far as education goes . . . You are going to be ahead and you are going to understand a lot more things than you would if you had just stuck your head in your bubble, if I just stuck in the ad lab these last two years.

~Advertising Student

- Students learned软 skills critical to success in careers.
- Students learned to communicate better with different types of people by listening closely and clearly explaining technical information to others.
- Working with students from other disciplines gave students a new perspective on their own work.

Design wise I feel like I’ve been trained to work on a team because of this place, and I think that’s one of the most valuable educational experiences I could have here.

~Illustration student

- Many students gained experience leading and managing a diverse team.
- Challenges with collaboration included some students not knowing how to collaborate, students from different fields having uneven workloads, and students needing more discipline-specific feedback.

Disciplinary knowledge. Students developed an in-depth understanding of their own disciplines. Students learned to apply skills developed in other courses in a practical setting. They also learned new skills in their fields, such as new programming languages and software use.

Learning about other disciplines. All of a sudden I’m working with all these programmers, and people from science, and people from writing, and they’re really great because all the ideas that they bring to the table, they’re things that I never would have thought of that. That is brilliant. And it makes you think of the world in a different way, and makes you see the world in a different way.

~Illustration Student

Students learned about other disciplines through interaction with peers. Students said they discovered new hobbies through their interactions with others.

Preparing for the future. Students said the skills they developed in CID courses will help them transition into careers. The experience will help them “break the learning curve” as they enter the workforce.

Character Building

I was in a job interview recently where the guy’s just asking me “Can you do this?” and I’m like “Oh my gosh, I can, because I learned that from my coworker last month” or, he was just listing off all these things and I’m like “Yea, I can do every single one of those things,” because I’ve already had that experience in school. I think that’s kind of amazing.

~Illustration student
The courses in the CID lab provided an environment in which students could cultivate the personal qualities outlined in the Aims of a BYU Education (2014).

**Personal growth and courage.** Several students said that experiences in courses like those offered through the CID initiative gave them the confidence to overcome challenges. One student said he was very shy when beginning his first design project, but he overcame this shyness and became a student leader. He reported that he is a much different person now. *Anyone can do that. Anyone can be empowered.*

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**Self-control and industry.** The loose structure of the courses required that students self-regulate work and deadlines. Students worked hard to serve others through CID projects. **Leading to Lifelong Service and Learning.** The skills that students learned in CID courses prepared them for a life of serving others. The CID coalition focused on selecting projects that will “magnify our influence for good.” Through these projects, students stimulated many kinds of social change. Many of them continued with projects after the end of the semester because of the impact the projects have on others.

### Integration with Curriculum and Interdisciplinary Design Thinking Minor

We quickly realized that it was not enough to “build it and they will come.” Initially, courses could only be taught in the CID Studio after making an application, where faculty needed to explain how their course fit the 4 goals of the CID Studio:

1. Interdisciplinary, showing the integration of students and hopefully faculty from multiple departments.
2. Design-focused, showing that the course would promote active, creative learning.
3. Focus on social betterment, with projects that show design being employed to improve societal good, broadly defined. In other words, we sought courses focused on social innovation.
4. Library integration, showing a strong partnership with the library staff and resources so that they feel like partners in the studio, not landlords.

These remain the key goals of the CID studio, but we have realized that we needed a stronger curricular partnership to provide courses that met these goals in a systemic way. This was part of the impetus to launching the Interdisciplinary Design Thinking Minor. More information on the launch of this minor, now one of the most popular minors at Brigham Young University, is available in a published article in *TechTrends* available at [https://rdcu.be/5xGE](https://rdcu.be/5xGE). The following is a graphical representation of the minor from this article.
Expansion of the CID Studio

With the initial success of the CID Studio, we have been approved for a dramatic expansion of the space. This construction is occurring now. The new studio will feature seating for 50 students, breakout spaces, and a small makerspace. These spaces will be primarily for interdisciplinary design and experiential learning courses, but will be available to students for group work when classes are not in session.

Research on the CID Studio

**Warr, M.** & West, R. E. (in press). Bridging academic disciplines with interdisciplinary project-based learning: Challenges and opportunities. *Interdisciplinary Journal of Problem-based Learning*

