

Design Education Research

Design education research is part of design research. This has been a JMD position for quite some time, with a special issue dedicated to the topic in July 2007 with Mike McCarthy as editor and Phil Doepker and Clive Dym as guest editors. In his introductory editorial for that issue, Mike McCarthy mentioned the following: “Clearly without the fundamentals nothing else matters, but then when the fundamentals are in place the rest of this must happen effectively for engineering to be successful. In the past our industry colleagues would teach these details, but the demands of the modern marketplace are making them less patient with our students’ inexperience. This is one of many challenges that I believe research in design engineering education can address to our benefit as researchers, educators, and engineers.”

These comments ring even more true today, when ideas such as innovation and globalization quickly dominate the discussion on how to advance economies and create good jobs. Design is closely linked with these ideas, and what happens in design education—in the classrooms, laboratories, and beyond—is critical for society’s progress. Yet, writing an educational research paper is more than a

success story; it needs the usual ingredients of research found in the social and behavioral studies, such as hypotheses testing, repeatability, and validation.

We have been fortunate at JMD to have Janis Terpenney serving as associate editor, specifically for design education research, over the past couple of years. Janis has recently assumed also the position of program director for the Division of Undergraduate Education, Directorate for Education and Human Resources at the U.S. National Science Foundation, working in programs advocating science, technology, engineering, mathematics, and cyber service. I asked Janis to share some thoughts with us on what makes good design education research papers so that more of you can be encouraged to send your contributions in this area to JMD. I am grateful to Janis for offering us a guest editorial this month, in her usual no-nonsense manner.

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Editor