TEACHING-LEARNING-RESEARCH: DESIGN AND ENVIRONMENTS

• Paper / Proposal Title:
Cardboard architecture: a multidisciplinary response to Covid-19

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• Abstract (300 words):
This presentation will outline a multi-disciplinary research and development project that seeks to influence student wellbeing and learning in the post-Covid-19 classroom. The presentation will highlight the generative intersections between research and other aspects of a product design and manufacturing process, including end-user prototyping in the classroom.

The main purpose of this presentation is to show how an interdisciplinary research team integrated with a product development process, involving design, marketing, end-user prototyping, partnerships and logistics. The research involved new ways of thinking and working about the practical synthesis and application of both architectural and education research to configure post-covid learning environments.

The project is called Unboxy - a set of low cost, durable, geometric cardboard shapes that could be used by primary and lower secondary school students to build temporary objects or structures. This was initially conceived of as a response to students returning to the classroom, post-covid. Unboxy is imaged as a counter to the social isolation, fear of an unseen but invasive virus, and the breakdown of routine and society norms. It provides students with an open and experimental canvas for hands-on activities (embodied
making and use) and a basis for engaging with teaching and learning processes (imagination, creativity, social collaboration).

The research team worked to give education and design depth, resonance, and meaning to the project narrative. Research evidence and perspectives from theory, empirical research, practice and experience were generated from education and architectural researchers and practitioners. The process to be presented includes how cross-disciplinary teams worked to inform, critically question, or to justify the design response, interpretation, and promotion. These issues included how to integrate education concepts with design features. Implications are noted for contemporary design of engaging learning environments that enmesh student wellbeing with learning.

• Author(s) Biography (200 words each):

Dr. Craig Deed is an Associate Professor in Education, in the School of Education, at La Trobe University. Craig has an extensive background in education as both an educator, researcher and administrator. Craig’s research interests include educator adaptation and student participation in flexible, open and virtual space; innovative and future pedagogical approaches in education; pre-design and post-occupancy evaluations of innovative learning environments; and the changing identity and role of educators. Recent education research projects have included three prestigious Australian Research Council (ARC) grants. These ARC projects have focused on increasing educational opportunity for students living in low socioeconomic areas of regional Australia. This includes research on personalised learning and the interaction between space, teaching and learning at all levels of education. Craig has authored or contributed to more than sixty academic papers, book chapters and conference presentations related to contemporary pedagogy, productive learning environment design and use; workplace innovation, and educational reform.

Dr. Paula Cardellino is an architect, Master in Intelligent Buildings and PhD in Architecture and Urbanism. She is a Senior Lecturer at Universidad ORT in Uruguay since 2010, and an international consultant in educational infrastructure since 2018. Paula has vast national and international experience in planning, carrying out, coordinating and supervising research and development projects, in addition to advising on education, innovation and infrastructure. Paula has participated in five international projects in the last decade, on topics related to innovative design, pedagogical change and inclusive education. Paula is the author of more than twenty academic articles and book chapters, in addition to participating in more than thirty international academic conferences as an expert in spaces for education. Paula stresses that physical space is crucial for the learning processes of the 21st century, since learning environments must be able to support different ways of learning and development of skills necessary for quality inclusive education. A space designed by the students and staff can engage and motivate them, so that each one can develop their maximum potential.
Elizabeth Matthews is currently an Assistant Professor of Psychology and Early Childhood Education at City College (City University of New York). Her research interests center on the role of the physical environment and its contribution to children's well-being, with a special emphasis on the physical environments of learning settings.

Adam Sewell is a registered architect at Y2 Architecture in Melbourne, Australia. Adam's interest is in how architecture can play a positive role in educational facilities, from early childhood to adult education.

Dr. Anne Southall has over 30 years' experience working in the field of special education and mainstream primary schools in both Australia and the UK. A Principal for many years, she developed an interest in the education of children from traumatic backgrounds and interventions which respond to the profound and long-term impact on their learning. In her current role she lectures in inclusive education and trauma studies at La Trobe University. Her research involves working in partnership with education providers to develop more trauma informed pedagogies through critically reflective processes.