

Research Article:

## **The Challenges and Initiatives of Teaching Product Design's Course Online During the COVID-19 Pandemic in Malaysia**

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### **ABSTRACT**

Due to the COVID-19 pandemic, most of the schools and universities around the globe, including Malaysia, were compelled to cease their operations and migrate to online teaching and learning environment. Along with this 'forced approach' to learning, the educators were faced with several barriers and challenges that need to be addressed. This paper intends to determine the challenges of teaching and learning Product Design courses in Malaysian universities using the online environment during the COVID-19 pandemic. It also highlights some of the strategies and initiatives adopted and adapted by the lecturers of this course in surmounting those challenges. Using a real-time video interview, data were collected from ten respondents from various faculties of Malaysian higher education institutions offering product design courses. The findings of the study point to a range of difficulties in teaching Product Design courses online, including the need for more delicate interactions to ensure efficiencies in teaching and learning design courses, as well as the evaluation methods to achieve design learning and design outcomes

**Keywords:** Product design, COVID-19, challenges, teaching and learning

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## **INTRODUCTION**

Novel Coronavirus' (COVID-19) latest outbreak has caused a worldwide outcry due to its deadly existence. The outbreak of COVID-19 has been critically evaluated by the Malaysian government as the World Health Organization (WHO) set the protocol that must be followed to prevent the spread from spreading widely. Prime Minister, Tan Sri Muhyidin Yassin therefore declared the implementation of the first Movement Control Order (MCO) on 18 March 2020. The MCO has a big effect on Malaysia's education system where most of schools and universities have to close their operation, impacting millions of students. Across Malaysia's public and private universities, polytechnics and community colleges, this is equivalent to 4.9 million school students and 1.2 million in higher education institutions, including some 130,000 international students (Salleh et al., 2020). Hence, online learning is used as a solution for educators to share their knowledge using e-learning or other platforms as education needs to be conducted during MCO. While having advantages such as time flexibility, environment flexibility and lower costs, there are few barriers and challenges that need to be addressed particularly for the Product Design course. Consequently, this paper aims to provide a factual report focusing on the complexities of teaching online Product Design courses and proposes a few steps which can be implemented as a solution. The research is based on four domain of Product Design course: (1) Theory-based subjects; (2) Studio-based subjects; (3) Computer Aided Industrial Design subjects (CAID) subject; and (4) Model-making sessions. The data gathered through a real-time video interview with 10 respondents from eight Malaysian higher education institutions that offer Product Design courses.

## **LITERATURE REVIEW**

There is various literature abounding with definitions of design. For instance, Simon (1977) defined design as an activity performed by any attempt to transform an existing situation into a desired new situation. Meanwhile, in design science perspective, the activity is defined as the creation and implementation of concepts with requirements leading to the design of the physical form of the product in order to better meet the needs of the customer (Ulrich, 2003). Globally, design plays a crucial role in providing a solution to a specific problem, with a collection of specifications for certain purposes and under certain constraints (Warell, 2008). As the need for products is old as humanity, product design discipline however is a relatively new field of knowledge. The terms Industrial Design and Product Design are often used interchangeably. In accordance with the concept of product design, industrial design is defined as a creative activity aimed at determining the formal qualities of industrially generated objects. These for-real qualities involve external attributes, but they are essentially structural and functional relationships that transform a system into a cohesive whole from the producer's and user's perspectives (Moody, 1980). The word 'Industrial Designer' was coined during the Industrial Revolution to describe people who helped to shape new ideas about the industry. Later, the word 'Product Designer' helped them reflect on why they were making it and for whom they were making it. As a result, many design schools provide this course under various names and various

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