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## **MONOZUKURI ASSIMILATION BEYOND JAPAN: STUDENTS' PERSPECTIVE ON COURSE IMPLEMENTATION**

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## **Abstract**

*Monozukuri, a Japanese concept meaning “making things,” reflects the integration of craftsmanship, technology, and human spirit within Japan’s industrial and educational landscape (Amasaka, 2002; Fujimoto, 1999). It embodies precision, creativity, pride, teamwork, and continuous improvement which have shaped Japan’s approach to engineering education (Vogel, 1979; Cole & Nakata, 2014). As Japanese-style engineering programs expand internationally, limited evidence exists on how Monozukuri is interpreted and implemented in educational settings outside Japan. Addressing this gap, this study aims to examine how students recognise and experience the integration of Monozukuri elements within their courses. A structured Likert-scale survey, validated through Focus Group Discussion, was conducted from February to April 2023 across five institutions in Malaysia, Egypt, and Japan. Students were asked to evaluate the extent to which Monozukuri values are embedded in their coursework. Findings show that students are able to identify Monozukuri elements relevant to educational and manufacturing contexts and report having been exposed to these values in their learning environment. Monozukuri is most clearly observed in fundamental and core engineering courses, Integrated Design Projects (IDP), and Final Year Projects (FYP), which blend theory with practical engagement. The results underscore that Monozukuri is meaningfully integrated within key curricular components and holds strong potential to enrich engineering education through hands-on learning, structured knowledge-building, and values-oriented development.*

## **Keywords:**

Monozukuri, Engineering Education, Course-Level Implementation, Higher Education Institution, Cross-Cultural Perspective