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The Development and Application of the A4 Game for POM Courses

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Abstract:

No matter in business or engineering faculties, many Hong Kong students shy away from courses with manufacturing and technical issues, e.g., production/operations management (POM). The same phenomenon has been reported widely recently. Research reveals that students feel far away from POM reality and cannot link management issues and physical engineering aspect. Students may be brought to visit plants but they never have the chance to practice what they learn there. Fortunately, management games provide an opportunity for students to be actively involved in education process and related physical processes. However, POM games did not satisfy the requirement due to three major problems. First, there are over thousands of games for teaching management courses. However, only about 100 games are POM specific. Second, it is in an odd that the vast majority of POM games do not (cannot) simulate the physical manufacturing processes. Computer simulation is very useful for decision making and design testing but still cannot provide a real physical environment. Third, those few POM games with physical processes are very complex and expensive. They need special laboratories and equipment, but still cannot incorporate management and engineering aspects. The play of these games can easily take hours up to days. POM games were limited by the Paradox between the need of physical processes versus the level of complexity. So far, there is not a POM game that can economically simulate the management and production of a manufacturing process from supplier, production to customer. This project aims to solve the problem by an innovative method and recycled A4 papers. That is why it is named A4 Game.