

## THE IMPORTANCE OF ROBOTICS EDUCATION IN DEVELOPING FUTURE-READY SKILLS

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In the 1990s, a world with robotics is just a fiction because of its limited adoption brought by high cost of acquisition. In this era of Fourth Industrial Revolution or Industry 4.0, still not all schools in the country have access to robotics education.

Learning robotics is highly critical to prepare the necessary talents in this age of Industry 4.0. Eventually, the industries will require skills for robotics and automation. Early exposure to robotics technology prepares the learners with a competitive advantage as explained by Mubin et al. (2013).

Development of relevant competencies may start with schools. Robotics education can be integrated to the curriculum. More than the skills to assemble robot components, robotics education would allow students to develop creative and critical thinking skills. These skills are needed to address simple and complex real-life problems in the communities.

According to Eguchi (2017), robotics promotes active engagement by allowing students to test ideas, make mistakes, and try again until they succeed. It promotes hands-on and experiential learning.

Moreover, robotics can foster collaboration through group work that requires students to design and program a robot. Teamwork and communication skills will be tested through these exercises. According to Benitti (2012), collaborative projects on robotics improve social interaction and improve self-esteem of learners.

Robotics education is an essential tool for preparing future-ready talents. Hence, the government and the private sector should join forces to improve access to robotics education in the country.

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