

11th SEAMEO-University of Tsukuba Symposium (Virtual)

Technology and Values - Driven Transformation in Education

20-22 February 2023

ABSTRACT

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Topic: Navigating Change: The Role of Technology and Values-Driven
Transformation in Thai Educational Policy

Technology can be used in many ways to transform education. During the past 30 years, different types of technology had potentials to benefit teaching and learning, such as engaging student, supporting student's critical and creative thinking, and supporting student's collaborative learning. Actually, it is not about technology or new devices but how they are used to foster teaching and learning.

Inequality in education is one of the issues in Thailand. Students with low-socioeconomic status are more likely to lack access to the internet and devices in their households. In the past three years with COVID-19, learning loss is inevitable. Hence, the Ministry of Education initiated the 5 Os approaches, i.e., ON-AIR, ONLINE, ON-DEMAND, ON-HAND, and ON-SITE, to let the schools and teachers decide on the teaching methods that suitable for their circumstances.

IPST is an autonomous agency under the Ministry of Education, responsible for the development and improvement of national curriculum, educational media and tools, standards and quality assessment on science, mathematics and technology education at the basic education level. The current Computing Science Curriculum, along with textbooks, and supporting materials were implemented since 2017. For primary levels (Grade 1-6), the emphases are (1) Solve problems with logical reasoning, (2) Design and programming with Block-coding softwares, (3) Use ICTs for communication and collaboration, and (4) Protect personal information, rights, and responsibilities to themselves and others. For secondary levels (Grade 7-12), the emphases are (1) Develop projects, applications, or solutions to solve problems creatively integrate with other disciplines, (2) Analyse, compare, and select appropriate technologies to enhance societies, economies, and environmental impacts, and (3) Utilize technology safely and with consideration of intellectual property.

In responding to the needs from COVID-19 situation, IPST developed "Project 14" to deliver digital video-based contents as open educational resources. Teachers could select and share the contents to their students and integrate with My IPST, the learning management system features instructional material collections, instructional guidelines, and personalized learning.

The goal of values-driven transformation in education is to create a learning environment that prepares students for success in the 21st century, not just in terms of academic knowledge, but also in terms of character development, personal growth, and ethical considerations. This involves creating a curriculum that fosters critical thinking, creativity, and empathy, as well as using technology in an ethical and responsible manner that prioritizes student well-being.

Guided by a commitment to excellence and innovation, IPST strives to create a strong and engaging learning community, by providing educators and students with the resources they need to succeed. Collaboration and partnerships with schools, universities, and government agencies are a key focus for IPST in creating a dynamic learning ecosystem that meets the evolving needs of Thai students and educators.