

## The Development of Blended Learning Model with a Design Thinking Process to Enhance Innovation Design Ability and Creative Thinking Projects of Undergraduate Students

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### Abstract

The purposes of this research were 1) to design and develop a blended learning model with a design thinking process to enhance innovative design ability and creative thinking projects. of undergraduate students, 2) to design and develop a blended learning course with a design thinking process 3) to study innovation design ability 4) to study creative thinking projects of undergraduate students, and 4) to evaluate the satisfaction of the students who studied via the blended learning model with a design thinking process.

The subjects were 30 students who enrolled in the SU402 innovation and design course during the first semester of the academic year 2024 at Silpakorn university, Thailand.

The results of this research are as follows: 1. The blended learning model is composed of 8 components of the learning activities model for innovation design: 1) identification of a problem or need, 2) data collection, 3) planning, 4) digital tools, 5) construction project, 6) project presentation 7) face-to-face learning consists of classroom (on-site) 8) online learning consists of via the internet (online) and 5 stages of the design thinking process. 1) empathize 2) Define 3) Ideate 4) Prototype 5) test 2. The design and development of a blended learning model with a design thinking process and learning activities was evaluated and approved by experts as a quality at the level of "high." 3. The students creative thinking project and innovation design ability who studied through the blended learning model with a design thinking process on the SU402 innovation and design course was at the level of "very good." 4. The satisfaction of the students who studied through the blended learning model with a design thinking process on the SU402 innovation and design course was at the level of "high."

### Keywords

Blended learning, instructional model, design thinking process, creative thinking, innovation design.