

## 大學生自我評估參與互動式線上跨國設計思考工作坊增進創新學習之成效 Self-assessments on Innovative Learning of University Students Participating in Interactive Online Transnational Design Thinking Workshop

葉月嬌(Yueh-Chiao Yeh)<sup>1\*</sup>、蔡亞璇(Ya-Hsuan Tsai)<sup>2</sup>、林俊宏(Jun-Hong Lin)<sup>1,2</sup>、呂明哲(Ming-Che Lu)<sup>3</sup>、許澤宇(Che-Yu Hsu)<sup>4</sup>、Noppadon Maneetien<sup>5</sup>、Supornphan Konchiab<sup>6</sup>、Krrittika Inta<sup>7</sup>、Thammanoon Buphate<sup>8</sup>、Mingkwan Gunjina<sup>9</sup>

<sup>1</sup> 南華大學自然生物科技學系；<sup>2</sup> 南華大學通識教育中心；<sup>3</sup> 南華大學應用社會學系；<sup>4</sup> 南華大學旅遊管理學系；Director, College of Integrated Science and Technology(CISAT)/Lecturer, Department of Electrical Engineering, Faculty of Engineering, Rajamagala University of Technology Lana Chiang Mai<sup>5</sup>；English for International Communication Program, Faculty of Business Administration and Liberal Arts, Rajamagala University of Technology Lana Chiang Mai<sup>6</sup>；Languages and Communication, Faculty of Business Administration and Liberal Arts, Rajamagala University of Technology Lana Chiang Mai<sup>7</sup>；General Education Department, College of Integrated Science and Technology, Rajamagala University of Technology Lana Chiang Mai<sup>8</sup>；Mathematics Department, Faculty of Science and Agriculture Technology, Rajamagala University of Technology Lana Chiang Mai<sup>9</sup>  
\* [ycyeh@nhu.edu.tw](mailto:ycyeh@nhu.edu.tw)

### 摘要

本研究目的在評估台灣南部某大學學生參與「大學社會責任計畫」，和泰國清邁某大學共同舉辦的『設計思考 X 慢運動』互動式線上國際工作坊，學習與參與活動之成效。共招募 38 位大學生參與，隨機分為參與線上工作坊的實驗組 18 人及一般全英語課程的對照組 20 人。本研究採前後測實驗設計，自我評估的學習和創新技巧量表共有六個構面，分別為：溝通技巧、批判思考與問題解決技巧、創造力、合作技巧、參與度及跨文化意識等。參與的學生有 78.9% 是男生、73.7% 主修人文領域以及 63.2% 是台灣學生。研究結果發現：完成參與工作坊的學生學習成效量表總分顯著較高 (增加 15.9 vs. 7.0 分,  $P=0.011$ )。另外，溝通技巧 ( $P=0.007$ )、批判思考與問題解決技巧 ( $P<0.001$ ) 以及創造力面向 ( $P=0.027$ ) 等，都有顯著的成效。學生對於使用英文來尋求協助、以系統性思考和在團體中提供腦力激盪的能力，都比一般修習全英文課程的學生更佳。我們也發現，學生對於挑戰解決社區相關議題的能力也顯著較好。研究結果證實，大學生參與跨國互動式線上設計思考工作坊，能增進英文溝通能力，也能激發其創新解決問題能力。本研究成果可提供未來大學，舉辦解決社區相關議題之設計思考工作坊參考。

關鍵詞：大學生、大學社會責任、跨國工作坊、創新學習、慢運動、溝通技巧

### Abstract

This study aimed to assess the effectiveness on learning and engagement of undergraduate students from one university in southern Taiwan participating an interactive online international workshop "Design Thinking X Slow Movement" co-organized by University Social Responsibility (USR) Project

and a university in Chiang Mai, Thailand. A total of 38 students were recruited and randomly assigned to participate in an online workshop (Experimental group, N=18) or take a general English-mediated course (Control group, N=20). The self-assessment questionnaires on learning and innovation skills were administered to the participants before and after the workshop or course. It was subcategorized into six items on “communication skills”, “critical thinking and problem-solving skills”, “creativity”, “collaboration skills”, “engagement”, and “intercultural awareness”. Most of the participants were male (78.9%), majored in humanity (73.7%), and were Taiwanese students (63.2%). Analyzed results showed that the total score of the learning outcomes questionnaire who completed the workshop was significantly higher compared with the control group (increased 15.9 vs. 7.0,  $P=0.011$ ). In addition, communication skills ( $P=0.007$ ), critical thinking and problem-solving skills ( $P<0.001$ ), and creativity aspects ( $P=0.027$ ) also had significant positive effects. Furthermore, students' ability to use English for seeking help, think systematically, and provide brainstorming in groups is better than those students who only take English-mediated courses. Our findings also revealed that participants' skill was improved to challenge and solve community-related issues. These results confirmed that college students' participation in transnational interactive online design thinking workshops can improve their English communication skills and inspire their innovative problem-solving skills. In conclusion, further study on the effectiveness of “design thinking workshop” to solve community-related issues can use our results as a reference for other universities.

**Keywords: University Students, University Social Responsibility, Transnational Workshop, Innovative Learning, Slow Movement, Communication Skills**