

環境未來通識課程對於大學生氣候變遷素養之 成效分析

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摘要

本研究探討環境未來通識課程對於提升大學生氣候變遷素養的成效。本研究採用混合法縱貫型解釋取向，先運用教育部氣候變遷調適問卷，分析在教學介入後學生的素養變項，並於學期末課程結束時，以焦點訪談法收集學生自述因課程而產生的改變，包含看待事物的觀點與角度、分析能力及行動意圖等質性資料。由問卷填答結果的比較發現，本課程學生在各項指標的 T 分數皆優於全國大專學生常模，尤其難得的是提升了行動技能的素養表現，有 75.44% 學生的平均數高於全國樣本。而在態度構面，研究個案學生有 68.85% 高於平均數，表現優於一般大專學生(55.63%)。期末的氣候變遷行動倡議影片製作發表，為一項綜整各項能力的課室方案，是促成實踐的關鍵教學介入，獲得學生非常正面積極的回應。本研究指出，以氣候變遷教育三要素為教學內涵架構之通識課程，可幫助以亞洲學生為主的國際學生提升環境行動技能。最後，對未來大學的氣候變遷教育，在教學內涵、田野實察及行動方案規劃上提出具體建議。

關鍵字：未來思維、氣候變遷教育、常模、教學介入、混合取向研究法

並發揮影響力，教學策略、內容、設計與學習評量都不能只沿用單向講述式教學法。需要仔細規劃，結合校內外的教學資源(經費、人力、物力)，並輔以教學成效評估的機制，才能逐步達成課程與計畫目標，確實發揮影響力，培養未來世代的國際與在地人才，達成氣候變遷、減緩與調適之未來目標。

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The Effects of “Future Studies in Environment” Course on Undergraduate Students’ Climate Change Literacy and Perceived Changes

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Abstract

Climate change education has gained monumental recognition in addressing one of the most complex, challenging, and urgent issues of humanity in the 21st century. However, existing survey results in Taiwan highlighted that undergraduate students scored the lowest in environmental, climate change and disaster prevention literacies among other age groups. To address the needs of effective climate change education program in university settings, the study examined the outcomes of “Future Studies in Environment” course on the components of literacy and perceived changes through a mixed-methods approach. A higher result than the norm in the action dimension and affective dimensions can be observed after the comparisons of the T scores from a nationwide survey. Quantitative results also suggested that the final climate change action film-making appeared to serve as a keystone experience for students to integrate all the knowledge and skills obtained in the course. Two findings are obtained: (1) the course really instilled changed minds and behaviors in response to climate change and (2) re-connecting and strengthening future thinking to present acting could be achieved by means of hope and personal field experiences. Suggestions for climate change education in the university settings, especially the higher education institutions in Asia and the Pacific with course facilitation for international students’ leaning are given.

Keywords: future thinking, climate change education, norm, educational intervention, mixed-methods research