

自行車鍛壓齒盤輕量化之改良設計

陳狄成; 陳文中

摘要

本計畫為兩年期計畫，計畫目的是為技職校院學生建構產業導向的技術基本能力指標及創造能力指標並且驗證成果。首先以能力指標為依據，發展精密機械製造技術實作創造力學習模組教材、精密機械製造技術課程學習態度量表、精密機械製造技術課程認知量表、精密機械製造技術量表、創造力量表及實驗教學課程內涵，並進行專家座談以修訂教材及各式量表。選取預試樣本實施試驗性教學及各量表之信效度測驗。最後，於第二年進行正式實驗教學，選取彰化師範大學工業教育與技術學系機械組學生，經由S型分組，將受試學生分為實驗組、對照組各19人，共38人，本研究採用克-瓦二氏單因子變異數等級分析，以利檢驗兩組學生的認知、技術、態度及創造力是否有顯著差異。研究結果發現：(1) 兩組學生在精密機械製造課程的認知能力無顯著差異；(2) 於實驗教學後，實驗組的學生在精密機械製造課程中的技術能力具顯著差異；(3) 兩組學生在精密機械製造課程的學習態度上，具顯著差異；(4) 在模具成品創造力中，實驗組的學生均達顯著性差異。

關鍵字：精密機械製造課程；成品創造力；創造力教學；技職校院

A Study on the Construction and Verification of Institute's Student of Industry Based Precision Machinery Manufacturing Technique Technology Creativity Indicators

陳狄成;陳清檳

Abstract

The study was based on industry-oriented technical and vocational school students in precision machinery manufacturing technology to create performance creativity indicators. Using document analysis and literature review of relative documents, books, educational objectives in accordance with for precision machine manufacturing technology performance creativity indicators. Then, concluded performance creativity module materials and teaching strategies, next, developed teaching strategies, performance creativity module materials, cognitive scale, technology scale, learning attitude scale and performance creativity of precision machinery manufacturing technology. Third, invited scholars and experts in precision manufacturing technology, creativity and related fields of business to discuss teaching strategies, performance creativity module materials, cognitive scale, technology scale, learning attitude scale and performance creativity of precision machinery manufacturing technology. Finally, select the National Changhua University of Education, Department of Industrial Education and Technology students for the sample to test the scale and reliability and validity to be the formal experimental teaching materials and measurements.

Key words: Industry-oriented;
Precision machinery manufacturing technology;
Performance creativity