

國立台中教育大學九十五學年度研究所碩士在職進修專班考試

科學教育概論 科試題

科學教育碩班 用

- 一、何謂行動研究 (Action research) , 請簡要說明行動研究的步驟與在科學教育上可能的應用。(20%)
- 二、在科學教學中, 您認為有哪些師生之間的互動, 可能限制了學生的思考? 請舉三種實例說明之。(20%)
- 三、何謂創造力? (5%)
請從課室教學談學童的創造力該如何培養? (10%)
- 四、(一) 請以中文寫出下兩句英文主要意思。An important task for science education is to develop children's ability to understand and practice scientifically valid ways of arguing, and enable them to recognise not only the strengths of scientific argument, but also its limitations.
(二) 試由科學教育的學習觀點, 申論此兩句之意涵, 以及其在科學學習之啟示。(20%)
- 五、From earliest grades, students should experience science in a form that engages them in the active construction of ideas and explanations and enhances their opportunities to develop the abilities of doing science. Teaching science as inquiry provides teachers with the opportunities to develop students abilities and to enrich student understanding of science.
(1)請先將這一段英文翻譯成中文(7%)
(2)隨後請你說明文中所指之“to develop the abilities of doing science”, 包括哪些能力(8%)
- 六、請你以「地球暖化」為主題, 自行繪製一份概念圖, 並說明概念圖評分的方法(10%)