

應用 ZMET 建構學習感知心智地圖

中文摘要

ZMET(Zaltman Metaphor Elicitation Technique)一般皆利用在行銷領域，本研究結合 ZMET 以及感知要素利用在教育領域，繪製十六位出學習者的心智地圖，有系統地瞭解學習者在學習歷程的感受，並提出改進學習效率的方法。根據繪製出的共同心智地圖發現如下：(1)在連結階段，依照學習者的進入點區分為正負兩種感知型態，但不論是以哪一種型態都不影響學習的完成，差別僅在後續的記憶長久度，但建議學習過程盡可能維持在正向感知是較佳的；(2)教師輕鬆活潑的教導將會是以正向感知進入連結階段的關鍵；(3)所有學習者在結束學習後都會產生偏正向的感知，但僅有「價值感」這項感知要素能促使學習者作後續的學習，其他愉悅等感知並無影響。

本研究並發現 ZMET 結合感知要素能夠較問卷以及訪談更深入地瞭解學習者的感受，但是訪談者的訪談技巧、歸納繪製心智地圖以及溝通的能力對研究結果的品質有相當重要的影響。另外因為受訪者(學生)對教育的涉入較深，因此應用 ZMET 於教育領域較行銷領域更能夠深入地描繪受訪者的心智地圖。但因教育品質的感受是較不容易具體化而且會隨教師、教材、時間的改變而改變，本研究建議將 ZMET 應用在線上學習(Online learning)的課程可能能夠得到較穩定而且能夠推論(Generalize)的結果。

關鍵字：感知、心智地圖、學習、ZMET

Applying ZMET to Construct Learning

Emotion Mental Map

Abstract

ZMET(Zaltman Metaphor Elicitation Technique) has been used in marketing area extensively. However, this study applies ZMET and emotional factors on education area to depict learners' mental map and propose the methods to improve learning efficiency. According to the retrieved metal map, three main findings are as follows: (1) in connector constructs, learners can have positive and negative emotions, depending on the starting point of entering the stage. These emotions do not affect completion of the learning process. They affect how long learners can recall learned knowledge after the course. We recommend that where possible, positive emotions should be maintained throughout the learning process; (2) relaxed and lively teaching generates positive emotions, and is thus a key in establishing links between originator and connector stage; (3) all learners have positive emotions when completing the learning, but only perceptions of value motivate learners to go on to further learning.

In addition, this study finds that the method combing ZEMT and emotional factors is able to dig learners' feeling in depth. But the interviewers' ability to interview and draw metal map is crucial for the research quality. Also, we recommend that ZEMT can retrieve higher generalization ability when it is applied on online learning courses.

Keywords: emotions, metal model, learning, ZMET