小去思生不同代數表徵的解題表現、教師布題順序與代數教學信念之研究

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附件一 教師代數教學信念問卷

名詞]解釋:											
「故	(事題]:	含有生活	情境的數	學應用	問題稱爲	故事型問題	Į,	例如	∏Р∄	١,	P4	試
		題。										
「文	(字題]:	不含生活	情境、純	粹以語	詞表達的	數學應用問	問題	稱怎	爲文	で字	型	問
		題,例如	P2、P5試	題。								
「笊	· 張題」:	將數字、	數學符號	及文字符	守號所列的	的運算式或	方程	己式和	稱焦	系符	號	或
	方程式問題,例如P3、P6試題。											
題號	and the second	題	目	內	容		非常同意	同意	有點同音	不!	不同意	不
	字題教學 與學生自		解題法相比	, 直接	教導明確認	的解題法是						
較有效的教學。 D2. 對於剛學習怎樣利用代數解故事題的學生,直接教導明確 □ □ □ □ □ □ □												
的解題法是必要的。												
3. 知道如何解一個數學方程式,比理解爲何使用這個方程式 □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □												
04. 處理複雜的故事題時,需要教導學生明確的解題法。 □□□□□□ 05. 在學生嘗試解題之前,教師應該先示範正確的解題法。 □□□□□□ 06. 學生要先熟練符號操作的過程,再學解故事題的技能。 □□□□□□ 07. 學生要先學列方程式,再學解文字型的技能。												
【代數地位觀】 08. 代數方程式是解故事題最有效的方法。												
99. 解決一個複雜的故事題最有效的方法,就是把相關的訊息 🗌 🗎 🗎 🗎												
10. f	解代數題		 舒號方程式	The second second	700 m (420 km) to 200 m.	固必要的步] [] [

B 生 不同 供 動 表 微 的 解 期 表 担 、 教 師 布 類 順 序 租 代 教 教 學 信 今 之 研 空

題號		題	目	內	容	非常同意	有點同意	站不同	不同意	_
12.	將問題訊息轉譯	成方程	式是解	故事題最	曼好的方法。					
13.	3. 解故事題必備的技能是代數方程式的解法。									
【符號領先觀】										
14.	故事題比相同的數學方程式困難。									
15.	5. 相同的數學問題,文字題比符號題困難。									
16.	6. 用文字呈現的數學問題容易把學生弄糊塗。									
17.	 以數學符號呈現的問題比文字呈現的問題簡單易懂。 									
18.	故事題使學生害	怕。								
19.	相同的數學問題	,以符	號呈現	的比故事	事呈現的更容易。					