

台灣 (Taiwan, ROC)

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跨領域師資培育課程提升學生二十一世紀關鍵能力之研究

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跨領域師資培育課程提升學生二十一世紀關鍵能力之研究

Enhancing Students' Twenty-First Century Skills in the Teacher Education Program Through the Cross-Disciplinary Curriculum Module

Overview	
Identification	E10645
Version	Production Date: 2024-12-01 1
Abstract	
<p>本研究第一年旨在調查不同領域(人文、商管、設計及理工科等)學生在不同取向之科學想像力表現(圖形 vs. 語文), 作為規劃第二年跨領域課程模組之參考;第二年以師資培育中心為實驗場域, 將設計思考教學模式融入跨領域課程模組, 配合落實校園內外整合實作環境的建置, 從跨領域合作與動手做等方向所構思之創意, 落實為可實現的原型;此外, 為了達到師資培育生多元學習, 亦舉辦多場與跨領域課程相關的專題講座、工作坊以及跨領域課程教案競賽, 作為臺灣未來教育及跨領域關鍵能力培育之推動依據。本研究在課程教學實驗設計採用準實驗單一組前、後測設計;資料分析方法包括訪談與觀察紀錄的質性分析、Rasch測量模式分析、相依樣本t test等。其研究結果除了能有助於培育學生成為未來所需的π型人才, 亦能幫助跨領域課程模組教師團隊能跳脫日常框架, 培養並提升其創新教學思維, 作為臺灣未來教育及跨領域關鍵能力培育之參考依據。</p> <p>本研究以南台灣某科技大學的學生作為研究對象, 以通識教育課程的學生為主, 共分為人文藝術領域、社會科學領域、自然科學領域等三個領域, 分別從三個領域中隨機挑選14門課程於2017年8月1日至12月30日進行問卷施測, 共有621位學生接受施測, 扣除無效樣本後, 有效樣本616位學生。</p>	
Kind of Data	抽查
Unit of Analysis	個人

Scope & Coverage	
Time Period(s)	2017
Countries	台灣 (Taiwan, ROC)
Universe	
以南台灣某科技大學的學生為研究對象, 母體為科技大學學生	

Producers & Sponsors	
Primary Investigator(s)	王佳琪, 南臺科技大學教育領導與評鑑研究所暨師資培育中心
Other Producer(s)	南臺科技大學教育領導與評鑑研究所暨師資培育中心
Funding Agency/ies	科技部

Data Collection	
Data Collection Dates	start 2017-08-01 end 2017-12-30
Time Period(s)	start 2017-08-01 end 2019-11-30
Data Collection Mode	留卷自填問卷

Data Processing & Appraisal**Data Editing**

中央研究院人文社會科學研究中心調查研究專題中心所進行的資料整理方式，為不合理值檢核。

Accessibility

Contact(s)	學術調查研究資料庫(Survey Research Data Archive) (中央研究院人社中心調查研究專題中心) , https://srda.sinica.edu.tw , srda@gate.sinica.edu.tw
Distributor(s)	學術調查研究資料庫(Survey Research Data Archive)
Depositor(s)	南臺科技大學教育領導與評鑑研究所暨師資培育中心

Access Conditions

標準版(一般會員、院內會員直接下載)

Files Description

Dataset contains 1 file(s)

data	
# Cases	616
# Variable(s)	25

Variables Group(s)

Dataset contains 3 group(s)

Group 基本資料							
#	Name	Label	Type	Format	Valid	Invalid	Question
1	gender	性別	discrete	numeric-12.0	608	8	-
2	college	學院	discrete	numeric-12.0	616	0	-
3	grade	年級	discrete	numeric-12.0	615	1	-
4	born	出生年	continuous	numeric-12.0	612	4	-
5	age	年齡	continuous	numeric-12.0	612	4	-

Group 科學想像力圖形測驗							
#	Name	Label	Type	Format	Valid	Invalid	Question
1	psia1	關卡A漫想力：受訪者畫出圖案的数量	discrete	numeric-12.0	616	0	-
2	psia2	關卡A聯想力：受訪者畫出圖案的類別	discrete	numeric-12.0	616	0	-
3	psia3	關卡A奇想力：受訪者所畫的物品在所有物品中所佔比例的獨特性	discrete	numeric-12.0	615	1	-
4	psib1	關卡B漫想力：受訪者畫出圖案的数量	discrete	numeric-12.0	616	0	-
5	psib2	關卡B聯想力：受訪者畫出圖案的類別	discrete	numeric-12.0	616	0	-
6	psib3	關卡B奇想力：受訪者所畫的物品在所有物品中所佔比例的獨特性	discrete	numeric-12.0	610	6	-
7	psic1	關卡C漫想力：受訪者畫出圖案的数量	discrete	numeric-12.0	616	0	-
8	psic2	關卡C聯想力：受訪者畫出圖案的類別	discrete	numeric-12.0	616	0	-
9	psic3	關卡C奇想力：受訪者所畫的物品在所有物品中所佔比例的獨特性	discrete	numeric-12.0	537	79	-
10	psid1	關卡D漫想力：受訪者畫出圖案的数量	discrete	numeric-12.0	616	0	-
11	psid2	關卡D聯想力：受訪者畫出圖案的類別	discrete	numeric-12.0	616	0	-
12	psid3	關卡D奇想力：受訪者所畫的物品在所有物品中所佔比例的獨特性	discrete	numeric-12.0	616	0	-

Group 心像問卷							
#	Name	Label	Type	Format	Valid	Invalid	Question
1	m1	心像問卷1：我會使用圖像的方式記憶事情	discrete	numeric-12.0	615	1	-
2	m2	心像問卷2：我可以用想像的方式去記得很多事。比	discrete	numeric-12.0	615	1	-

#	Name	Label	Type	Format	Valid	Invalid	Question
		如說我可以回想今天老師或同學在學校時的穿著、長相、坐姿，而不是他們今天說了什麼話					
3	m3	心像問卷3：在我腦海中想到的圖像通常是非常生動，就像真的一樣	discrete	numeric-12.0	613	3	-
4	m4	心像問卷4：閉上眼睛時，我可以輕鬆的在腦中描繪出我所看過的場景	discrete	numeric-12.0	615	1	-
5	m5	心像問卷5：閱讀故事書的時候，我通常會在腦海中想到故事中的場景或房間的細節	discrete	numeric-12.0	613	3	-
6	m6	心像問卷6：在我的腦海中，隨時都會出現看過物體或事件的影像。這些影像自然而然的就在我的腦海中	discrete	numeric-12.0	614	2	-
7	m7	心像問卷7：我可以用想像的方式很輕易的記住其他人不容易注意到的細節。例如，我可以清楚地記住別人穿的衣服顏色或是鞋子顏色	discrete	numeric-12.0	615	1	-
8	m8	心像問卷8：我可以輕易的在腦海中想像幾何圖形的立體(3D)形狀和旋轉的情形	discrete	numeric-12.0	614	2	-

Variables Description

Dataset contains 25 variable(s)

File : data			
# gender: 性別			
Information	[Type= discrete] [Format=numeric] [Range= 0-1] [Missing=*]		
Statistics [NW/ W]	[Valid=608 /-] [Invalid=8 /-]		
Value	Label	Cases	Percentage
0	女	307	50.5%
1	男	301	49.5%
Sysmiss		8	
<i>Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.</i>			
# college: 學院			
Information	[Type= discrete] [Format=numeric] [Range= 1-4] [Missing=*]		
Statistics [NW/ W]	[Valid=616 /-] [Invalid=0 /-]		
Value	Label	Cases	Percentage
1	工學院	202	32.8%
2	商管學院	261	42.4%
3	人文社會學院	80	13.0%
4	數位設計學院	73	11.9%
<i>Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.</i>			
# grade: 年級			
Information	[Type= discrete] [Format=numeric] [Range= 1-6] [Missing=*]		
Statistics [NW/ W]	[Valid=615 /-] [Invalid=1 /-]		
Value	Label	Cases	Percentage
1	大一	233	37.9%
2	大二	106	17.2%
3	大三	176	28.6%
4	大四	100	16.3%
5	大五延修生	0	
6	研究所	0	
Sysmiss		1	
<i>Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.</i>			
# born: 出生年			
Information	[Type= continuous] [Format=numeric] [Range= 57-88] [Missing=*]		
Statistics [NW/ W]	[Valid=612 /-] [Invalid=4 /-] [Mean=85.735 /-] [StdDev=3.627 /-]		
# age: 年齡			
Information	[Type= continuous] [Format=numeric] [Range= 18-49] [Missing=*]		
Statistics [NW/ W]	[Valid=612 /-] [Invalid=4 /-] [Mean=20.265 /-] [StdDev=3.627 /-]		
# m1: 心像問卷1：我會使用圖像的方式記憶事情			
Information	[Type= discrete] [Format=numeric] [Range= 1-5] [Missing=*]		
Statistics [NW/ W]	[Valid=615 /-] [Invalid=1 /-]		
Value	Label	Cases	Percentage
1	完全不符合	9	1.5%
2	不符合	31	5.0%
3	普通	233	37.9%

File : data

m1: 心像問卷1：我會使用圖像的方式記憶事情

Value	Label	Cases	Percentage
4	符合	242	39.3%
5	完全符合	100	16.3%
Sysmiss		1	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

m2: 心像問卷2：我可以用想像的方式去記得很多事。比如說我可以回想今天老師或同學在學校時的穿著、長相、坐姿，而不是他們今天說了什麼話

Information [Type= discrete] [Format=numeric] [Range= 1-5] [Missing=*]

Statistics [NW/ W] [Valid=615 /-] [Invalid=1 /-]

Value	Label	Cases	Percentage
1	完全不符合	13	2.1%
2	不符合	73	11.9%
3	普通	208	33.8%
4	符合	241	39.2%
5	完全符合	80	13.0%
Sysmiss		1	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

m3: 心像問卷3：在我腦海中想到的圖像通常是非常生動，就像真的一樣

Information [Type= discrete] [Format=numeric] [Range= 1-5] [Missing=*]

Statistics [NW/ W] [Valid=613 /-] [Invalid=3 /-]

Value	Label	Cases	Percentage
1	完全不符合	11	1.8%
2	不符合	58	9.5%
3	普通	234	38.2%
4	符合	220	35.9%
5	完全符合	90	14.7%
Sysmiss		3	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

m4: 心像問卷4：閉上眼睛時，我可以輕鬆的在腦中描繪出我所看過的場景

Information [Type= discrete] [Format=numeric] [Range= 1-5] [Missing=*]

Statistics [NW/ W] [Valid=615 /-] [Invalid=1 /-]

Value	Label	Cases	Percentage
1	完全不符合	19	3.1%
2	不符合	52	8.5%
3	普通	230	37.4%
4	符合	218	35.4%
5	完全符合	96	15.6%
Sysmiss		1	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

m5: 心像問卷5：閱讀故事書的時候，我通常會在腦海中想到故事中的場景或房間的細節

Information [Type= discrete] [Format=numeric] [Range= 1-5] [Missing=*]

Statistics [NW/ W] [Valid=613 /-] [Invalid=3 /-]

File : data

m5: 心像問卷5：閱讀故事書的時候，我通常會在腦海中想到故事中的場景或房間的細節

Value	Label	Cases	Percentage
1	完全不符合	8	1.3%
2	不符合	29	4.7%
3	普通	149	24.3%
4	符合	251	40.9%
5	完全符合	176	28.7%
Sysmiss		3	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

m6: 心像問卷6：在我的腦海中，隨時都會出現看過物體或事件的影像。這些影像自然而然的就在我的腦海中

Information	[Type= discrete] [Format=numeric] [Range= 1-5] [Missing=*]
Statistics [NW/ W]	[Valid=614 /-] [Invalid=2 /-]

Value	Label	Cases	Percentage
1	完全不符合	7	1.1%
2	不符合	34	5.5%
3	普通	209	34.0%
4	符合	258	42.0%
5	完全符合	106	17.3%
Sysmiss		2	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

m7: 心像問卷7：我可以用想像的方式很輕易的記住其他人不容易注意到的細節。例如，我可以清楚地記住別人穿的衣服顏色或是鞋子顏色

Information	[Type= discrete] [Format=numeric] [Range= 1-5] [Missing=*]
Statistics [NW/ W]	[Valid=615 /-] [Invalid=1 /-]

Value	Label	Cases	Percentage
1	完全不符合	27	4.4%
2	不符合	79	12.8%
3	普通	245	39.8%
4	符合	189	30.7%
5	完全符合	75	12.2%
Sysmiss		1	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

m8: 心像問卷8：我可以輕易的在腦海中想像幾何圖形的立體(3D)形狀和旋轉的情形

Information	[Type= discrete] [Format=numeric] [Range= 1-5] [Missing=*]
Statistics [NW/ W]	[Valid=614 /-] [Invalid=2 /-]

Value	Label	Cases	Percentage
1	完全不符合	30	4.9%
2	不符合	107	17.4%
3	普通	249	40.6%
4	符合	158	25.7%
5	完全符合	70	11.4%
Sysmiss		2	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

File : data

psia1: 關卡A漫想力：受訪者畫出圖案的数量

Information [Type= discrete] [Format=numeric] [Range= 0-3] [Missing=*]

Statistics [NW/ W] [Valid=616 /-] [Invalid=0 /-]

Value	Label	Cases	Percentage
0	0-1個	33	5.4%
1	2-4個	200	32.5%
2	5-7個	246	39.9%
3	8個以上	137	22.2%

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

psia2: 關卡A聯想力：受訪者畫出圖案的類別

Information [Type= discrete] [Format=numeric] [Range= 0-3] [Missing=*]

Statistics [NW/ W] [Valid=616 /-] [Invalid=0 /-]

Value	Label	Cases	Percentage
0	0-1類	60	9.7%
1	2-3類	288	46.8%
2	4-5類	247	40.1%
3	6類以上	21	3.4%

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

psia3: 關卡A奇想力：受訪者所畫的物品在所有物品中所佔比例的獨特性

Information [Type= discrete] [Format=numeric] [Range= 0-3] [Missing=*]

Statistics [NW/ W] [Valid=615 /-] [Invalid=1 /-]

Value	Label	Cases	Percentage
0	0-10分	452	73.5%
1	11-18分	138	22.4%
2	19-25分	21	3.4%
3	26分以上	4	0.7%
Sysmiss		1	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

psib1: 關卡B漫想力：受訪者畫出圖案的数量

Information [Type= discrete] [Format=numeric] [Range= 0-3] [Missing=*]

Statistics [NW/ W] [Valid=616 /-] [Invalid=0 /-]

Value	Label	Cases	Percentage
0	0-1個	12	1.9%
1	2-4個	61	9.9%
2	5-7個	221	35.9%
3	8個以上	322	52.3%

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

psib2: 關卡B聯想力：受訪者畫出圖案的類別

Information [Type= discrete] [Format=numeric] [Range= 0-3] [Missing=*]

Statistics [NW/ W] [Valid=616 /-] [Invalid=0 /-]

Value	Label	Cases	Percentage
0	0-1類	19	3.1%

File : data

psib2: 關卡B聯想力：受訪者畫出圖案的類別

Value	Label	Cases	Percentage
1	2-3類	150	24.4%
2	4-5類	363	58.9%
3	6類以上	84	13.6%

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

psib3: 關卡B奇想力：受訪者所畫的物品在所有物品中所佔比例的獨特性

Information	[Type= discrete] [Format=numeric] [Range= 0-3] [Missing=*]
Statistics [NW/ W]	[Valid=610 /-] [Invalid=6 /-]

Value	Label	Cases	Percentage
0	0-10分	230	37.7%
1	11-18分	253	41.5%
2	19-25分	96	15.7%
3	26分以上	31	5.1%
Sysmiss		6	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

psic1: 關卡C漫想力：受訪者畫出圖案的數量

Information	[Type= discrete] [Format=numeric] [Range= 0-3] [Missing=*]
Statistics [NW/ W]	[Valid=616 /-] [Invalid=0 /-]

Value	Label	Cases	Percentage
0	0-1個	215	34.9%
1	2-4個	314	51.0%
2	5-7個	82	13.3%
3	8個以上	5	0.8%

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

psic2: 關卡C聯想力：受訪者畫出圖案的類別

Information	[Type= discrete] [Format=numeric] [Range= 0-3] [Missing=*]
Statistics [NW/ W]	[Valid=616 /-] [Invalid=0 /-]

Value	Label	Cases	Percentage
0	0-1類	263	42.7%
1	2-3類	299	48.5%
2	4-5類	52	8.4%
3	6類以上	2	0.3%

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

psic3: 關卡C奇想力：受訪者所畫的物品在所有物品中所佔比例的獨特性

Information	[Type= discrete] [Format=numeric] [Range= 0-3] [Missing=*]
Statistics [NW/ W]	[Valid=537 /-] [Invalid=79 /-]

Value	Label	Cases	Percentage
0	0-10分	435	81.0%
1	11-18分	96	17.9%
2	19-25分	6	1.1%
3	26分以上	0	
Sysmiss		79	

File : data

psic3: 關卡C奇想力：受訪者所畫的物品在所有物品中所佔比例的獨特性

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

psid1: 關卡D漫想力：受訪者畫出圖案的數量

Information [Type= discrete] [Format=numeric] [Range= 0-3] [Missing=*]

Statistics [NW/ W] [Valid=616 /-] [Invalid=0 /-]

Value	Label	Cases	Percentage
0	0-1個	233	37.8%
1	2-4個	312	50.6%
2	5-7個	69	11.2%
3	8個以上	2	0.3%

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

psid2: 關卡D聯想力：受訪者畫出圖案的類別

Information [Type= discrete] [Format=numeric] [Range= 0-3] [Missing=*]

Statistics [NW/ W] [Valid=616 /-] [Invalid=0 /-]

Value	Label	Cases	Percentage
0	0-1類	266	43.2%
1	2-3類	297	48.2%
2	4-5類	52	8.4%
3	6類以上	1	0.2%

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

psid3: 關卡D奇想力：受訪者所畫的物品在所有物品中所佔比例的獨特性

Information [Type= discrete] [Format=numeric] [Range= 0-3] [Missing=*]

Statistics [NW/ W] [Valid=616 /-] [Invalid=0 /-]

Value	Label	Cases	Percentage
0	0-10分	546	88.6%
1	11-18分	67	10.9%
2	19-25分	3	0.5%
3	26分以上	0	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.