

# 教育學誌

(原初等教育學報)

第五十三期

國立臺南大學教育學系 編印

中華民國一一四年五月

# 教育學誌第 53 期

(原名初等教育學報，民國 93 年改名為教育學誌)

出 版 者：國立臺南大學教育學系

地 址：臺南市中西區樹林街二段 33 號

網 址：<https://edu.nutn.edu.tw/>

電 話：(06)2133111#610-613

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封面設計：紀育廷

承 印 者：泰成印刷廠

出版年月：民國 114 年 5 月

創刊年月：民國 77 年 6 月

刊期頻率：半年刊

本刊同時登載於臺南大學教育學系網站，網址為 <https://edu.nutn.edu.tw/>

工 本 費：新台幣 300 元

GPN：2009304583

ISSN：2071-3126

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# 國小雙閱讀素養導向評量工具編製之初探— 以台南市國小四年級學生為例

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## 摘要

本研究旨在編製國小四年級之雙閱讀素養導向評量工具，藉此瞭解學生雙閱讀素養之學習表現，並探討學校背景因素與雙閱讀素養表現之關係。研究者以自編雙閱讀素養評量為評量工具，採立意抽樣，抽取臺南市四間國小四年級學生共191人進行施測。整體評量難度為.64，鑑別度為.46。

研究主要發現如下：一、本份「國小四年級雙閱讀素養導向評量工具」具有良好品質，為中間偏易且具高鑑別度、信度與效度之評量。二、學生在雙閱讀素養表現上，紙本閱讀素養分數顯著高於數位閱讀素養分數。三、不同學校類型、教學活動時間之學生在雙閱讀素養導向評量表現上有差異。四、不同學校閱讀環境資源學生在雙閱讀素養導向評量分數上有顯著相關。

關鍵詞：國小學生、評量編製、學校背景因素、雙閱讀素養

# **Research on Developing the Assessment of the Paper And Digital Reading Literacy for Primary School Students -- The Case of Forth-grade Students in Tainan City**

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## **Abstract**

The purpose of the study was to develop a measurement tool of paper and digital reading literacy for primary school students, understanding students' performance and investigate the related factors to the school context. Employing a self-designed assessment, the study selected 191 fourth-grade students from four primary schools in Tainan City for testing. The assessment framework was structured around the four dimensions of PIRLS reading comprehension, covering "retrieving information," "making inferences," "interpreting and integrating ideas," and "evaluating and critiquing content," across three text genres: informational, narrative, and expository. Results indicated the proportion of correct answer of 0.64 with the item discrimination index of 0.46. The findings of the study were as following:

1. The "Assessment of Paper and Digital Reading Literacy for Primary School Students" has good quality, with moderate difficulty, high discrimination, reliability, and validity.
2. Students exhibited significantly higher performance in print literacy compared to digital literacy.
3. students from various school types and with differing teaching activity times demonstrated discrepancies in performance.
4. Significant correlations were observed between students' scores in the assessment and the resources available in their school's reading environment.

**Keywords:** primary school students, assessment development, school context factors, paper and digital reading literacy

## 壹、緒論

十二年國民基本教育課程綱要中，閱讀素養成為核心素養的重要內涵（教育部，2021a），而隨著數位科技的快速發展與普及，數位閱讀素養也受重視。國際學生能力評量計畫（Program for International Student Assessment, PISA）此一跨國性學生評量，從 2009 年開始即改線上施測，而促進國際閱讀素養研究（Progress in International Reading Literacy Study, PIRLS）在 2015 年亦增加線上施測，台灣 PIRLS 團隊也編製數位閱讀素養學習活動手冊，擬定數位閱讀素養能力指標。在 PIRLS2016 與 ePIRLS2016 的成績中，台灣學生的一般紙本閱讀素養尚未轉移至數位閱讀素養，而在 PIRLS2021 平均成績下降 15 分，從國際性閱讀評比可發現台灣學生的紙本與數位閱讀素養仍有進步空間。

近年來新冠疫情促成停課不停學，數位閱讀普及於生活，也因此 2021 年通過「推動中小學數位學習精進方案」，以班班有網路、生生用平板作為推廣目標推動數位轉型，而善用紙本與數位工具，依不同學習任務間自在轉換以面對全球化的挑戰成為當務之急。因此在國民中小學課程與教學資源整合平台（Curriculum & Instruction Resources Network，簡稱 CIRN）上，教育部國民及學前教育署（國教署）提出雙閱讀素養教學指標以發展雙閱讀素養教學模式（教育部，2022）。除此之外，「雙閱讀素養教學模式研發及師資培育計畫」亦承辦雙閱讀素養教學研習、教案競賽與觀議課討論，並提供合適教材與教具（教育部，2021b），由此可見雙閱讀素養導向教學已成趨勢。

一般而言，紙本閱讀素養即一般所稱之閱讀素養。數位閱讀素養（digital reading literacy）則跳脫紙質經驗，以數位化文本閱讀（Rich, 2008），其定義上學者看法各異，有些學者認為是新素養，強調資訊通訊技術（Leu et al., 2004），有些學者重新定義數位閱讀歷程：定義所需訊息的問題、搜尋問題、瀏覽訊息、處理訊息、組織和呈現訊息（Brand-Gruwel et al., 2009）。而 ePIRLS 則保留原本紙本閱讀理解歷程，新增數位閱讀環境（Mullis et al., 2015）；在 2021 年發展出的 digitalPIRLS 則將紙本內容數位化，以類似電子書的形式施測（Mullis et al., 2023）。Wolf（2018）在其研究中指出數位與紙本閱讀所著重的閱讀策略不同，以數位載具閱讀在認知上會以圖片形式處理，因此亦提及雙閱讀素養（biliterate reading）的重要性。而雙閱讀素養即一般閱讀素養與數位閱讀素養的結合，透過紙本閱讀及數位閱讀材料與策略，發展搜尋與瀏覽、評估、整合、組織和呈現的能力（教育部，2021b）。

至於評量是教學歷程中重要的環節，可即時檢測學生是否達到雙閱讀素養指標，教師亦可針對學生表現調整教學內容，然而研究者查詢期刊論文，有許多研究探討雙閱讀素養之教學模式，但尚未有雙閱讀素養相關評量。目前教育部推展之「新世代雙閱讀-提升國民中小學學生閱讀素養實施計畫」中，雙閱讀素養教學

正在進行，發展雙閱讀素養評量為此行動方案的最終計畫，故編製一具高信效度之雙閱讀素養評量實是刻不容緩。

而雙閱讀素養表現受到許多因素的影響，因此國際閱讀素養評比時，亦會分析相關背景變項，本研究希冀可應用在教學現場的實務方面，因此從不同學校背景變項探討學生之雙閱讀素養表現。以四年級做為受試對象，主要依國語文領綱，一至三年級為識字發展階段，四年級後則注重閱讀理解能力。而在精熟書面閱讀之後，再結合數位閱讀，為發展雙閱讀素養的重要養成階段，因此研究者編製之四年級雙閱讀素養評量有其必要性與迫切性，以達最大效益並期作為教學現場教師之參考。

綜合上述背景動機，本研究之目的如下：

一、編製「國小雙閱讀素養導向評量工具」，分析其難度、鑑別度與信效度

二、根據施測結果，分析不同學校因素學生之雙閱讀素養表現及其關聯性

本研究之問題可分為兩點：

一、本研究編製雙閱讀素養導向評量試題之難度、鑑別度與信效度為何？

二、不同學校因素學生在雙閱讀素養表現上是否具關聯性？

(一)不同學校類型之學生在雙閱讀素養的表現上是否具關聯性？

(二)不同學校類型閱讀環境資源之學生在雙閱讀素養的表現上是否具關聯性？

(三)不同學校教學活動之學生在雙閱讀素養的表現上是否具關聯性？

由本研究之問題與文獻探討，研究假設如下：

一、本研究編製雙閱讀素養導向評量試題難度適中且具有良好鑑別度與高信效度

二、不同學校因素學生在雙閱讀素養表現上具有關聯性

(一)不同學校類型之學生在雙閱讀素養的表現上具有關聯性

(二)不同學校類型閱讀環境資源之學生在雙閱讀素養的表現上具有關聯性

(三)不同學校教學活動之學生在雙閱讀素養的表現上具有關聯性

## 貳、文獻探討

### 一、雙閱讀素養導向評量內涵之探究

#### (一) 閱讀素養導向評量之內涵

十二年國教中，閱讀素養導向評量本身與過程應為學習的一部分，學生可以看見自己的學習歷程，也能讓教師針對評量結果適性教學；而素養導向評量應也可發展成良好的素養導向教學活動。而縱觀國內外相關研究，閱讀素養為終身學習的主軸，相關課程與教學之研究所在多有，然而研究者以「閱讀素養導向評量」關鍵字查詢國內相關期刊論文，發現國內少有著墨，有教學議題卻少有閱讀素養評量試題實在可惜。

而國際大型閱讀研究評量 PIRLS2021 使用故事體、說明文來檢視閱讀歷程，其中將閱讀歷程分為直接提取、直接推論、詮釋整合與比較評估四個層面。因科技教育的演變，在 2021 年發展出紙本形式評量 PIRLS、數位形式評量 digitalPIRLS 與 ePIRLS，三者閱讀歷程相同 (Mullis et al., 2023)。因施測對象為 9 歲學生，與本研究的施測對象相近，故將此做為編製試題之參考依據。

此外，PISA 為 OECD 針對 15 歲學生舉辦之國際標準化評估測驗。在 2018 年將原有評量架構更名為定位訊息、理解、省思評鑑，並增加搜尋與選擇相關文本、偵測與處理衝突等內涵，可推論數位化時代更重視選擇和評鑑真偽，然更名前後意義相差不大 (許育健，2020)。PISA 閱讀歷程分三認知歷程：檢索與擷取、統整與詮釋、省思與評價。文體分六種：描述性、記敘性、說明性、議論性、指引性與互易性。由上述對 PISA、PIRLS、ePIRLS 與 digitalPIRLS 的閱讀素養評量之比較，可發現無論紙本與數位閱讀，皆會經歷相似的閱讀理解歷程。

再次，縱觀國中小閱讀素養編製工具之相關研究發現，國內外相關學者多以前述之 PISA、PIRLS 國際閱讀評量內涵做為編製依據，除此，只要是線上閱讀則多採線上閱讀歷程「擷取與檢索」、「統整與解釋」、「省思與評鑑」中更細項的內容探討 (黃秀霜等，2019；劉宜芳、柯華葳，2014)。從中亦發現台灣素養導向評量的數量不多，尤其國小數位相關之素養導向評量更為少見，然而從國語文領綱 (教育部，2018) 可以看見國小第二階段與第三階段是閱讀素養養成的重要階段，故本研究有必要性與迫切性。

## (二) 雙閱讀素養導向評量之意義

數位閱讀素養日益重要，在兩大國際大型評量亦先後增加線上評量因應趨勢。而 2022 年教育部提出雙閱讀素養教學模式研發及師資培育計畫，著手培育師資以提升教師閱讀教學知能，以數位閱讀結合一般紙本閱讀，使學生之間的閱讀成就差距不隨年級提升而增加。雙閱讀素養評量為評量紙本及數位的閱讀素養，非單指紙本或數位閱讀素養，而國際相關閱讀素養研究多針對 PIRLS 與 ePIRLS 進行次級分析，且未包含建構式反應題 (Peras et al., 2023)，實為可惜。因此本研究擬以 PIRLS 的閱讀歷程為架構，以 ePIRLS、PISA、國語文領綱、數位閱讀素養學習活動手冊為編製參考，並以國教署 CIRN 平台之雙閱讀素養教學指標和相關文獻為理論編製依據，以作為雙閱讀素養導向評量之探究。

## 二、影響雙閱讀素養之學校因素

過去相關閱讀素養之學校背景因素之研究多透過國際閱讀素養評量資料庫進行分析，少有個別蒐集的分析研究。因此本研究針對學校因素，尤其聚焦於學校因素之學校類型、學校閱讀環境資源與學校教學活動作為探討。

### (一) 學校類型

在教育部訂定之偏遠地區學校教育發展條例可發現，台灣偏鄉學校除文化因素外，尚存在生活機能、交通、數位環境、社會經濟條件的差異。近 20 年間教育部推出一系列閱讀教育推動計畫，旨在改善偏鄉學習落差。而 PIRLS2021 分成兩方面，一方面依學校所在地人口數分，發現大城市顯著高於中城鎮與小村鎮學生；PIRLS 另一方面以偏鄉、非山非市與一般學校來分析閱讀表現，發現偏鄉學校之樣本數過少導致標準誤差大 (張郁雯等，2023)。由此可看出本研究以學校類型屬一般或偏遠地區對雙閱讀素養量測具有相當需求性。

### (二) 學校閱讀環境資源

根據 PIRLS2006、2011、2016 的學校問卷調查可以發現，學校藏書量超過 10000 本以上的比例連年增長，從 49%、58%到 76%。藏書量超過 10000 本以上的學校閱讀素養成的 541 分；而在 2016 年藏書量超過 10000 本以上的學校為 561 分，與 10000 本以下學生 554 分的閱讀素養成績無顯著差異 (柯華葳等，2013，2017)。PIRLS2021 年僅以 2000 本作為區隔，發現有 94%之學校超過 2000 本，兩者成績未達顯著差異。多數學校圖書已超過 10000 本，研究者查詢學校藏書量與學生閱讀表現之關係時，發現相關研究須追溯至巫有鑑 (2007) 發現學校閱讀資源可做為學校財務資本之指標，學校財務資本與學生閱讀表現具關聯性，然並未深入討論學校藏書量超過 10000 本時，其數量與學生閱讀表現是否具關聯性。

### (三) 學校閱讀策略教學時間

學生在課室內的學習時間相當多，而教師閱讀教學對於兒童的閱讀技巧與閱讀行為呈正向關係 (王梅玲、曾湘怡，2013)。從 PIRLS2006 至 PIRLS2016，可以看見閱讀教學活動模式的變化，亦顯示教學模式的差異不會影響閱讀成績表現。而在閱讀策略的教學頻次上，檢視其與學生成績是否有主要效果，可發現「歸納統整」的教學頻率單純對 2016 年之說明文成績有主要效果，但若考慮交互作用情形，則全部未達統計顯著水準 (陳明蕾，2019)。因此本研究欲從整體之實施閱讀策略教學的時間來分析其與學生閱讀表現之關聯性。

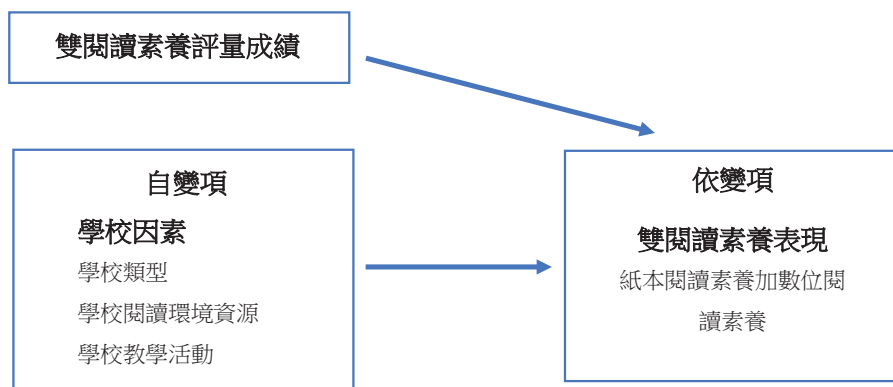
## 參、研究方法

### 一、研究架構

本研究旨在編製雙閱讀素養導向評量工具，評估國小四年級學生雙閱讀素養之學習表現，並透過學校因素之學校類型、學校閱讀環境資源與學校教學活動等重要自變項，探討對國小四年級學生雙閱讀素養表現之影響。研究架構圖如圖 1。

圖 1

研究架構圖



## 二、研究樣本

### (一) 預試樣本

以台南市兩所國小四年級學生分別為 A 國小兩班 46 人，B 國小一班 10 人，共 56 人，藉預試結果來修正試題以提高評量信效度，形成正式題本。

### (二) 正式樣本

採立意抽樣，選取台南市四所國小、九個班級，共 210 人。排除無效試卷後，共得有效樣本共 191 人，其中偏遠地區學校 51 人，一般地區學校 140 人；並且平分成甲乙兩組，如表 1。考慮施測品質的維持和國小學生對施測工具的陌生，研究者參與所有施測過程並主持問卷填寫與作答說明。

表 1

正式施測樣本人數分配

學校類型	學校	組別	班級數	學生人數	佔全體比例
一般	C 學校	甲組	1	25	24.61%
		乙組	1	22	
一般	D 學校	甲組	2	49	48.69%
		乙組	2	44	
偏遠	E 學校	甲組	1	18	20.42%
		乙組	1	21	
偏遠	F 學校	甲組	1	4	6.28%
		乙組		8	

### 三、研究工具

#### (一) 編製依據

試題形式上則參考 PIRLS、數位閱讀素養學習活動手冊與國小四年級學習能力檢測評量之閱讀測驗，選取適宜兒童文本並酌修字句，發展出字數介於 600 字至 900 字、文本字頻控制在國語文領綱之第二學習階段識字 1800 字標準、前兩層次較多之評量工具，如表 2。

表 2

PIRLS 閱讀歷程與文體之雙向細目表

	層次一 提取訊息	層次二 推論訊息	層次三 詮釋整合	層次四 比較評估
題組一	第一題	第七題	第三題	第四題
應用文	第二題	第五題	第六題	
題組二	第九題	第八題	第十題	第十一題
故事體		第十二題 第十三題		
題組三	第十四題	第十八題	第十七題	第十六題
說明文	第十五題			
合計(題)	5	6	4	3
佔全體比例	27.8%	33.3%	22.2%	16.7%

#### (二) 計分方式

「雙閱讀素養導向評量工具」共三個題組，題型為選擇題 12 題與建構式反應題 6 題。選擇題以對、錯的二元方式計分，每題 1 分；建構式反應題則採取 0 分至 3 分的多元計分方式，若進一步計算難度與鑑別度，則將建構式反應題等比例縮小至 0 分至 1 分。

#### (三) 形式審查與內容審查

形式審查上，研究者於國小四年級雙閱讀素養評量初稿完成後，敦請一位擔任 PIRLS 計畫學校聯絡人並接受訓練之校長，對測驗架構和題目進行形式審查並給予修正建議；內容審查上，為瞭解學生的施測情形、題幹描述與開放式問答評分規準之適切性，研究者請不同語文能力之國小中高年級學生閱讀測驗內容；除此之外，請資深國小校長與兩位教育學專業教授協助審查評量內容、題意敘述、修正文句的使用方式，使文章與該年段學生相符，提升評量內容效度。審查完成後，則進行預試與正式施測。

#### (四) 施測方式

採團體施測，平分成甲、乙兩組，除偏鄉一班小校，其餘國小依班級分成甲、乙組，甲組國小先以紙本形式施測、乙組國小先以數位形式施測，再於兩週後對調施測形式，如圖 2 所示。每次施測時間為 30 分鐘，施測之前有 10 分鐘的施測說明。兩次施測間隔兩週（林寶貴、杞昭安，1996）。評量回收後統一由研究者依評分規準標準化批改。

圖 2

施測方式架構圖



紙本施測由施測者標準化說明規則並引導學生完成第一部分基本資料，完成基本資料後統一計時作答第二部分評量。數位施測之載具搭載於 Surveycake 平台，採一頁一題、上方文章下方題目之結構，受試者作答時以滑鼠捲動視窗、點選試題答案，並且可於建構反應題使用複製與貼上功能以減少打字速度造成之誤差，正式繳交前可以重覆檢查。

#### (五) 預試分析

##### 1. 難度與鑑別度

難度為試題正確反應機率。難度值越大，表示答對的人越多，試題越簡單；鑑別度之高低分組則為前 27% 設為高分組，後 27% 為低分組。依據 Chase (1978) 之難度分級與 Ebel (1979) 的試題鑑別度為判斷標準，本預試為難度.71 中等偏易、鑑別度.44 之優良評量。再以鑑別度.30 為保留或刪減試題的依據。

研究者欲探究學生是否經閱讀文章再作答內容、詳閱文章之比例。第九題為提取訊息層次，難度與鑑別度皆低，容易答對但須完整閱讀文章才能正確提取。預試僅一人回答錯誤，學生若認真閱讀皆可正確回應，因此研究者保留第九題於後討論。

##### 2. 信度

本研究以 Cronbach's Alpha 值做為各題評量內容的內部一致性信度分析。本評量 Cronbach's Alpha 值為.77，為可接受之評量，再刪除第十四題將內部一致性提升至.89，為極佳信度之評量。試題經過上述修改後形成正式試題。圖 3 為評量評分規準示例。

## (六)學校因素之背景問卷

以 PIRLS2021 學校背景問卷及教師背景問卷為架構，分採 PIRLS2021 學校問卷第七題「所在學校圖書館擁有大約多少本書籍(包含雜誌和期刊)?」、PIRLS2016 教師問卷第 R7 題「無論是否有閱讀策略教學課程，正常的一週中，您課堂使用多少分鐘在閱讀策略的教學活動?」、依 PIRLS 國家報告建議改編 PIRLS2021 學校問卷第五題「所在學校是否屬教育局所審訂之偏遠學校?」。此背景問卷於正式施測時交由班級導師填寫。

## 四、資料處理與分析

本研究樣本的處理，除了針對前測與後測的比較分析有加入後測之學生樣本，其餘資料之統計分析皆以前測評量的學生表現做為統計數據。並採用 SPSS for Windows 21.0 進行描述性統計分析、 $t$  檢定、單因子變異數分析與積差相關。

### 圖 3

#### 建構反應題與其評分規準之示例

3. 為什麼文章(一)的孫祖倫到處分享他努力生活的心得？請推測你覺得他到處分享的二個可能原因。

Q3 試題說明與分析	
學習表現	5-II-4 掌握句子和段落意義與主要概念。
學習內容	Ad-II-1 意義推。
PIRLS 層次	詮釋整合
評分規準	歸納全文訊息並詮釋人物行為的背後含意
題目的重點在「分享努力生活心得的原因」，所以學生從主角身分推測行為背後的目的。	
3 分—完全理解	
答案能從主角身分推測行為背後目的，並具有普遍價值。	
例如：	
—他希望其他人也努力生活、熱愛生命	
—要讓人們看見面對困難的勇氣	
2 分—部分理解	
答案能從主角身分推測行為背後目的，但不具普遍價值。	
例如：	
—讓大家瞭解要勇敢對抗罕見疾病【說明：不具普遍性，每個人不一定有罕見疾病，宜改為「讓大家了解要勇敢對抗疾病、困難。」】	
—他想讓身心障礙的人知道絕已經撐過來了【說明：不具普遍性，未從自身推論至其他人可以獲得的啟發。】	
1 分—部分理解	
答案能理解行為可能原因，但從主角身分出發。例如：	
—想研發協助身心障礙者的生活輔助系統工具	
—因為他閱讀第一名	
0 分—沒有理解	
未作答、答案與題目無關、太過籠統或答非所問。例如：	
—想活下去	
—因為罕見疾病	

## 肆、研究結果與討論

### 一、雙閱讀素養導向評量試題之分析與討論

#### (一) 難度與鑑別度

整體評量結果 ( $P=.67$ ,  $D=.46$ )與預試結果大致相同 ( $P=.71$ ,  $D=.44$ )，為中間偏易且具有優良鑑別度之評量。進一步以獨立樣本 $t$ 檢定檢視高低分組兩組學生的

分數差異，結果顯示高分組學生 ( $M=25.18$ ) 的分數顯著高於低分組學生 ( $M=9.88$ )， $t(94.29)=-33.53$ ， $p<.05$ ， $d=6.28$ 。

就難度而言，選擇題幾乎介於.40至.80、建構反應題均在.55至.85的範圍，符合Chase (1978) 所建議之題目挑選難度。所有題目中，僅第九題選擇題難度偏低(>.80)、第三題建構反應題難度偏高(<.55)。第九題難度較低的原因將於稍後探討。第三題難度偏高，最主要為此題答案需縱覽全文並進行推論，須由學生自行剖析人物行為背後的動機。

就鑑別度而言，幾乎所有題目具良好鑑別度(>.30)，表示本評量可確切量測學生之雙閱讀素養，其中又以第十五題的鑑別度最高( $D=.80$ )，僅第九題鑑別度低於.30。第十五題雖為提取訊息，但此題有誘答選項，因此全體學生中有近三成學生選擇誘答選項，且幾乎為低分組學生，高分組於此題的答對率為.98。第九題亦為提取訊息之閱讀層次，沒有重新檢視文章，則容易回答錯誤。縱觀研究者保留之第九題，會選擇另外幾種選項的可能原因有二：首先，依照題幹直接推論回答而未回頭觀看文章；第二，未找到正確段落而直接答案。

由各題組來看，故事體回答正確的比例最高，依序是應用文及說明文；鑑別度為說明文最高，應用文其次，最後則是故事體。此結果與PIRLS在台灣的施測結果相同。

由PIRLS各層次來看，首先，提取訊息層次的難度與鑑別度皆較低，但鑑別度差異大，題目本身較直觀，但若試題有誘答選項、需依序擷取答案，則低分組學生不易回答。接著，推論訊息層次與詮釋整合層次的難度與鑑別度相當，而詮釋整合的難度稍高一籌，可知國小四年級學生在整合全文內容上仍有進步的空間。最後，比較評估層次的鑑別度最高，但各題難度差異大。比較評估層次需要學生理解全文內容再推斷作者撰寫的含意，因此較不容易正確回答，而第四題難度較低的原因是題組二的第二篇文章篇幅較短，學生較能正確回答問題。本評量結果亦可看出此四大層次的難度有明顯的階層性，亦即整體難度而言提取訊息較簡單，但提取訊息之個別試題難度亦可能等同於詮釋整合的難度；整體難度而言比較評估最難，但比較評估之個別試題難度也可以如同推論訊息的難度。

以紙本形式之閱讀素養評量與數位形式之閱讀素養評量之比較，如表3，在難度方面，紙本形式評量試題常大於數位形式評量，有半數試題難度差距超過.10，僅三題試題之數位評量難度大於紙本評量難度，但彼此難度差距在.03之內。紙本形式評量與數位形式評量之難度差距超過.20者共四題。兩種形式的評量內容幾乎相同，但數位形式評量的答對率明顯較低，可能原因有二：閱讀紙本書時，腦海會留下空間印象，紙本形式閱讀比數位形式閱讀更可以描述文章核心概念(Singer & Alexander, 2017)；兩種不同閱讀形式使用不同認知策略，紙本閱讀能表現較具選擇與意義的閱讀行為 (Jian, 2022)。此結果亦符合PIRLS2016與

ePIRLS2016的國際閱讀素養評量學生表現：相較紙本形式評量，台灣學生在數位形式之評量分數有20分的差距。因ePIRLS的前六名之國家皆是數位形式評量高於紙本形式評量，推論應有其他變項影響數位與紙本閱讀素養評量的因素，值得於未來研究詳加探討。

## (二) 信度

本評量Cronbach's  $\alpha$ 值為.811，代表本評量工具具有相當穩定性。紙本閱讀素養導向評量之Cronbach's  $\alpha$ 值為.834；數位閱讀素養導向評量之Cronbach's  $\alpha$ 值為.765，此一數位閱讀評量常具信度較低的傾向，與多數研究結果相同（張貴琳，2013；黃秀霜等，2019）。

表 3

雙閱讀素養導向評量之難度與鑑別度分析表

題 號	閱讀 歷程	難度(P)				鑑別度(D)			
		整體	紙本	數位	彼此差異	整體	紙本	數位	彼此差異
		(I)	(J)	(I-J)		(I)	(J)	(I-J)	
1	提取訊息	0.83	0.86	0.80	0.06	0.39	0.37	0.25	0.12
2	提取訊息	0.78	0.83	0.73	0.10	0.39	0.39	0.42	- 0.03
3	詮釋整合	0.52	0.59	0.45	0.14	0.56	0.47	0.51	- 0.04
4	比較評估	0.80	0.80	0.81	- 0.01	0.47	0.39	0.50	- 0.11
5	推論訊息	0.63	0.75	0.51	0.24	0.46	0.34	0.38	- 0.04
6	詮釋整合	0.58	0.62	0.54	0.08	0.51	0.38	0.54	- 0.16
7	推論訊息	0.57	0.62	0.53	0.09	0.41	0.48	0.26	0.22
8	推論訊息	0.56	0.57	0.55	0.02	0.39	0.36	0.47	- 0.11
9	提取訊息	0.89	0.94	0.83	0.11	0.21	0.09	0.33	- 0.24
10	詮釋整合	0.78	0.77	0.79	- 0.02	0.39	0.39	0.41	- 0.02
11	比較評估	0.75	0.74	0.77	- 0.03	0.43	0.42	0.49	- 0.07
12	推論訊息	0.51	0.58	0.43	0.15	0.60	0.56	0.62	- 0.06
13	推論訊息	0.75	0.81	0.68	0.13	0.43	0.22	0.55	- 0.33
14	提取訊息	0.60	0.72	0.47	0.25	0.73	0.69	0.63	0.06
15	提取訊息	0.60	0.71	0.48	0.23	0.80	0.57	0.76	- 0.19
16	比較評估	0.40	0.44	0.36	0.08	0.38	0.34	0.39	- 0.05
17	詮釋整合	0.49	0.59	0.39	0.20	0.50	0.45	0.50	- 0.05
18	推論訊息	0.71	0.78	0.63	0.15	0.65	0.57	0.41	0.16
整體試題		0.67	0.72	0.61	0.11	0.46	0.40	0.42	- 0.02

### (三) 效度

#### 1. 內容效度

本評量之架構主要依照 PIRLS 閱讀素養評量的四項閱讀歷程與三種文體體裁，製成雙向細目表來逐一命題，全部指標皆有對應題目、各試題內容亦與閱讀素養有關聯，評量試題足夠且實用。雙向細目表如前表 2 所示。

#### 2. 專家效度

專家係以兩位教育學教授與一位曾做為 PIRLS 受試學校之主要聯絡人的資深國小校長組成，審視文章與題幹逐題提供修改建議。三位專家於施測方式、評量內容均提供諸多建議，使評量更符合雙閱讀素養的命題。

#### 3. 構念效度

本評量工具分為提取訊息、推論訊息、詮釋整合與比較評估之閱讀歷程，以 Pearson 積差計算與整體閱讀素養表現的相關，四大項度與總分相關依序為  $r=.67$ 、 $r=.63$ 、 $r=.64$  與  $r=.54$  ( $p<.05$ )，達中至高度相關，表示本評量的構念效度尚可。

## 二、學生雙閱讀素養表現之分析與討論

本評量閱讀素養表現分數為右偏常態分配。由平均分數觀之，紙本形式評量在選擇題與建構反應題皆顯著高於數位形式評量， $t(189)=2.75$ ， $p<.01$ ， $d=.40$ ； $t(189)=3.72$ ， $p<.01$ ， $d=.54$ 。試題內容相同，學生在紙本評量上的表現明顯優於數位評量。研究者於施測時亦感受到學生在數位閱讀時容易分心、未閱讀文章即作答，與紙本閱讀安靜且專注的氛圍差異極大，Wallace 等人 (2000) 的研究結果可解釋氛圍差異：學生在數位閱讀時，容易快速瀏覽文本，未詳細閱讀文章即快速作答。研究者亦發現學生紙本施測時，閱讀文章時會於下方畫線，而數位施測時亦以滑鼠點擊，但無法形成標記，閱讀策略的使用可能造成數位與紙本閱讀素養評量的表現差異 (Schugar et. al, 2011)。而施測後，受試學生表示較喜歡紙本評量，因為比較看得懂文章，此可與 2018 年 Wolf 在神經科學研究中解釋：受試者在螢幕閱讀時，資訊的獲取和記憶的細節順序掌握度會降低。而若平時有使用合適的數位閱讀教學，其數位閱讀素養能夠超過紙本閱讀素養。(López-Escribano et al, 2021)。由標準差觀之，國小四年級學生在紙本形式之評量表現較佳，學生之間程度差異大；而在數位形式評量則反之。

## 三、不同學校背景變項與學學生雙閱讀表現分析與討論

研究者進一步對學校的背景差異做分析比較，了解學校背景因素與雙閱讀素養表現、個別閱讀素養表現的關係。評量的原始成績範圍介於 0 至 30 分。表 4 即呈現不同背景變項之受試者在「國小雙閱讀素養導向評量工具」的雙閱讀素養表現分數與個別閱讀素養表現分數。

研究結果顯示，「閱讀環境資源」、「閱讀策略教學時間」此兩變項與「雙閱讀素養表現分數」具有顯著相關與差異，其餘背景變項與個別閱讀表現分數具有差異但未達顯著水準。就閱讀環境資源與雙閱讀素養表現分數而言，levene 檢定顯示  $F$  值為 2.32， $p>.05$  符合變異數同質性檢定的假設下，發現閱讀環境資源之圖書量的不同會造成顯著差異， $F_{(3,187)}=3.37$ ， $p<.05$ ， $\eta^2=.05$ ， $MSE=36.49$ ，為中效果量。此結果與巫有鑑於 2007 年發現之結果相同：每位學生擁有的圖書量會對整體學業表現有影響。林俊瑩、吳裕益 (2007) 指出學校背景因素僅能解釋兩成學生學業表現，因此學校圖書量的解釋量已相當高。

就閱讀策略教學時間與雙閱讀素養表現分數而言，在 levene 檢定顯示  $F$  值為 1.48， $p>.05$  符合變異數同質性檢定的假設下，可得結果  $F_{(3,187)}=4.47$ ， $p<.05$ ， $\eta^2=.07$ ， $MSE=35.89$ ，具有顯著差異且為中量關聯程度。可見閱讀策略教學會影響雙閱讀素養表現分數。

最後，在學校類型上，研究結果發現在雙閱讀素養表現上，一般地區的學生優於偏遠地區的學生，但未達顯著水準，其結果與 PIRLS 相同，推測可能因素為教育部針對偏鄉推動之閱讀教育推動計畫有所成果以及偏鄉生生有平板，使學生知道正確使用數位載具的方式。而單看紙本閱讀素養與數位閱讀素養在學校背景變項上的差異，可發現其結果均有趨勢但未達顯著。單看各國小學生個別紙本閱讀表現與數位閱讀表現，兩者落差甚大，尤其 D 國小的數位閱讀表現與紙本閱讀表現落差 4.73 分，原因值得在後續研究細探。

**表 4**  
不同學校背景變項之學生雙閱讀素養表現

學校背景變項		雙閱讀素養		紙本閱讀素養		數位閱讀素養	
		樣本數	表現 分數	樣本數	表現 分數	樣本數	表現 分數
就讀學校類型	1.一般地區	140	18.61	74	20.20	66	16.82
	2.偏遠地區	51	17.29	22	18.73	29	16.21
閱讀環境資源(圖書量)	1. 50000 本_C 國小	47	20.64	25	20.96	22	20.27
	2. 35000 本_D 國小	93	17.58	49	19.82	44	15.09
	3. 13000 本_E 國小	39	17.56	18	18.83	21	16.48
	4. 2000 本_F 國小	12	16.42	4	18.25	8	15.50
閱讀策略教學時間	1. 40 分鐘以下	57	16.93	4	18.25	53	16.83
	2. 40 分鐘至 80 分鐘	39	17.56	18	18.83	21	16.48
	3. 80 分鐘至 120 分鐘	74	20.20	74	20.20	-	-
	4. 120 分鐘至 160 分鐘	21	16.29	-	-	21	16.29

## 伍、結論與建議

### 一、結論

(一) 「國小四年級雙閱讀素養導向評量工具」具有良好信度與效度，且能顯著區別高分組及低分組之學生

本評量工具共 18 題，為中間偏易但具極佳鑑別度之評量，可以顯著區分高低能力組學生表現，其效果量已達到相當大的實際顯著性。建構反應題的平均難度與平均鑑別度皆高於選擇題，可以區分不同能力受試者的表現。其次，本評量具高度內部一致性與良好效度。此雙閱讀素養導向評量工具品質良好。

(二) 雙閱讀素養表現上，國小四年級學生之紙本閱讀素養分數顯著高於數位閱讀素養分數

雙閱讀素養表現之紙本閱讀素養分數顯著高於數位閱讀素養分數，此結果與文獻相同；試題整體表現亦呼應文獻所述：文體由易至難依序為故事體、應用文與說明文；PIRLS 層次由易至難依序為提取訊息、推論訊息、詮釋整合至比較評估，鑑別度以提取訊息最低、詮釋整合最高。

(三) 不同學校背景變項學生在雙閱讀素養導向評量之表現差異

學校圖書量和學生整體閱讀表現具有顯著正相關，可以知道學校圖書量較多之學生，閱讀素養表現較佳。過往文獻均指出家庭背景因素大幅影響學生學習成效，學校圖書量的解釋量已相當高。然學校圖書量是否由其他因素間接影響，則可再做討論。而不同閱讀策略教學時長在學生閱讀表現上有顯著差異。

### 二、建議

(一) 教學應用的省思

本研究建構反應題未填答率較高，研究者於施測後詢問未填答原因，多數學生回答「不會寫」、「不知道要寫什麼」。建構反應題可反應學生更高層次理解能力，因此可嘗試於日常評量與段考增加建構反應題。此外，學生數位閱讀素養表現顯著低於紙本閱讀素養表現，可能為教師較少將數位融入教學。使用數位載具閱讀已是現今趨勢，課堂融入並教導正確使用方法頗為重要，因此建議於課堂中融入數位閱讀相關活動，提升學生在閱讀媒介轉換的操作與適應力。再者，偏遠地區圖書量明顯比一般地區少，且閱讀策略與學生雙閱讀素養表現具有顯著差異。缺乏閱讀氛圍而讓學生閱讀表現較需加強。

(二) 未來研究的進一步修訂

本研究為評量學生之雙閱讀素養，主要以量化之分數分析紙本閱讀素養表現與數位閱讀素養表現，未來研究可以再加入質性訪問以更瞭解學生結果表現的差

異因素。而本評量對象為台南市四所國小之學生，地域的不同可能導致差異，因此應用推論上有些許限制與發展性。此外，本研究欲以平板為數位載具以呼應生生用平板政策，但發現儘管學校有平板，學生幾乎沒有操作平板的經驗且不會使用觸控筆，模擬測驗常跳出應試畫面或者無法書寫，最後施測仍選用電腦施測，因此建議學校以平板融入教學，讓學生熟習操作並讓數位與紙本閱讀皆唾手可得。再者，本次研究採用相同試題，可以看出學生在相同內容之數位與紙本評量的表現差異，以及評量形式對下一次不同評量形式的影響力。未來亦可嘗試使用複本評量，量測學生數位和紙本的能力。

## 參考文獻

- 王梅玲、曾湘怡 (2013)。兒童閱讀教學活動成效評估。《國家圖書館館刊》，102 (2)，83-110。
- 【Wang, M. L. & Tseng, H. Y. (2013). Study on reading indtruction activities assessment for children, *National Central Library Bulletin*, 102(2), 83-110】
- 巫有鑑 (2007)。學校與非學校因素對台東縣原、漢國小學生學業成就的影響。《台灣教育社會學研究》，7 (1)，29-68。
- 【Wu, Y. I. (2007). Effects of school and non-school factors on Aboriginal and Non-aboriginal elementary students' academic achievement in Taitung, Taiwan. *Taiwan Journal of Sociology of Education*, 7(1), 29-67.】
- 林俊瑩、吳裕益 (2007)。家庭因素、學校因素對學生學業成就的影響—階層線性模式的分析。《教育研究集刊》，53 (4)，107-144。
- 【Lin, C. Y., & Wu, Y. Y. (2007). Impact of Family and School Factors on Students' Academic Achievement: An Analysis of Hierarchical Linear Modeling, *Bulletin of Educational Research*, 53(4), 107-144.  
[https://doi.org/10.6910/BER.200712\\_\(53-4\).0004](https://doi.org/10.6910/BER.200712_(53-4).0004)】
- 林寶貴、杞昭安 (1996)。兒童認知發展能力測驗之編製及相關研究。《特殊教育研究學刊》，14，1-20。
- 【Lin, G. B. & Chi, C. A. (1996). A study on the nonverbal cognitive abilities of three to twelve year old children in Taiwan. *Bulletin of Special Education*, 14, 1-20.】
- 柯華蕙、張郁雯、詹益綾、丘嘉慧 (2017)。PIRLS 2016 臺灣四年級學生閱讀素養國家報告。國立中央大學。
- 【KO, H. W., Chang, Y. W., Chan, Y. L. & Chiu, C. H. (2017). *The National Report of PIRLS 2016 fourth grade student reading literacy in Taiwan*. National Central University.】
- 柯華蕙、詹益綾、丘嘉慧 (2013)。PIRLS 2011 臺灣四年級學生閱讀素養國家報告。國立中央大學。
- 【KO, H. W., Chan, Y. L. & Chiu, C. H. (2013). *PIRLS 2011 Report: Forurth graders' reading lietracy in Taiwan*. National Central University.】
- 張郁雯、詹益綾、林欣佑 (2023)。PIRLS 2021 臺灣四年級學生閱讀素養國家報告。國立臺北教育大學。 <https://cirn.moe.edu.tw/Upload/file/38741/121884.pdf>
- 【Chang, Y. W., Chan, Y. L., Lin, H. Y. (2023). PIRLS 2021 Report: Forurth graders' reading lietracy in Taiwan. <https://cirn.moe.edu.tw/Upload/file/38741/121884.pdf>】

張貴琳(2013)。青少年線上閱讀素養評量工具之發展。**教育實踐與研究**, 26(2), 29-65。

【Chang, K. L. (2013). The Development of Adolescent Online Reading Literacy Assessments, *Journal of Educational Practice and Research*, 26(2), 29-65.】

教育部(2018)。十二年國民基本教育課程綱要語文領域-國語文。教育部。

【Ministry of Education. (2018). *12-Year Basic Education Curriculum Guidelines: the domain of Mandarin*. <https://reurl.cc/rZj8N1>】

教育部(2021a)。十二年國民基本教育課程綱要總綱。教育部。<https://reurl.cc/rZj8N1>

【Ministry of Education. (2021). *12-year basic education curriculum guidelines*. <https://reurl.cc/rZj8N1>】

教育部(2021b)。雙閱讀素養教學模式研發暨師資培育計畫。教育部。  
<https://lihi.cc/GvL5T>

【Ministry of education. (2021) Development and teacher training program for dual literacy instructional models. <https://lihi.cc/GvL5T>】

教育部(2022)。新世代雙閱讀實施計畫：提升國民中小學學生閱讀素養實施計畫。教育部。<https://www.ccjh.ptc.edu.tw/uploads/1660028935568T4328UZZ.pdf>

【Ministry of Education. (2022). New generation dual reading: Implementation plan for enhancing reading literacy of elementary and junior high school students. <https://www.ccjh.ptc.edu.tw/uploads/1660028935568T4328UZZ.pdf>】

許育健(2020)。PISA2018 談閱讀理解的題型與趨向。**國語文教育電子報**, 34, 2-11。  
<https://cirn.moe.edu.tw/Upload/file/35251/94183.pdf>

【Hsu, Y. C. (2020). PISA 2018: Types and Trends in Reading Comprehension. *Mandarin Language Education Newsletter*, 34, 2-11. <https://cirn.moe.edu.tw/Upload/file/35251/94183.pdf>】

陳明薈(2019)。台灣十年來教師閱讀教學與學生閱讀表現關係之探討：來自 PIRLS 2006、2011 與 2016 的證據。**教育心理學報**, 51(1), 51-82。

【Chen, M. L. (2019). The relationship between teacher reading instruction and students' reading performance in the past ten years of Taiwan: Evidence from PIRLS 2006, 2011 and 2016. *Bulletin of Educational Psychology*, 51(1), 51-82. [https://doi.org/10.6251/BEP.201909\\_51\(1\).0003](https://doi.org/10.6251/BEP.201909_51(1).0003)】

黃秀霜、曾雅瑛、甘孟龍、許力云、黃品甄(2019)。「國中生線上閱讀理解能力測驗」之發展及相關因素之研究。**測驗學刊**, 66(4), 377-401。

【Huang, H. S., Tseng, Y. Y., Gan, M. L., Hsu, L. Y. & Huang, P. C. (2019). Research on the development and related factors of the online reading comprehension assessment for junior high school students. *Psychological Testing*, 66(4), 377-401.】

劉宜芳、柯華葳 (2014)。國小學生「線上閱讀素養測驗」之編製與線上閱讀能力表現之初探。《測驗學刊》，61 (4)，509-532。

【Liu, I. F. & KO, H. W. (2014). Developing online reading skill test to assess elementary students' online reading performance. *Psychological Testing*, 61(4), 509-532.】

Brand-Gruwel, S., Wopereis, I., & Walraven, A. (2009). A descriptive model of information problem solving while using Internet. *Computers & Education*, 53, 1207-1217. <https://doi.org/10.1016/j.compedu.2009.06.004>

Chase, C. I. (1978). *Measurement for educational evaluation*. Reading, MA: Addison-Wesley.

Ebel, R. (1979). *Essentials of educational measurement*. Englewood cliffs, NJ: Prentice-Hall.

Jian, Y. C. (2022) Reading in print versus digital media uses different cognitive strategies: evidence from eye movements during science-text reading. *Reading and Writing: An Interdisciplinary Journal*, 35(7), 1549-1568. <https://doi.org/10.1007/s11145-021-10246-2>

Leu, D. J., Kinzer, C. K., Coiro, J., & Cammack, D. (2004). *Toward a theory of new literacies emerging from the internet and other ICT*. In R. B. Ruddell & N. Unrau (Eds.), *Theoretical models and processes of reading* (5th ed.) (pp. 1568-1611). New York, NY: International Reading Association.

López-Escribano, C., Valverde-Montesino, S., & García-Ortega, V. (2021). The Impact of E-Book Reading on Young Children's Emergent Literacy Skills: An Analytical Review. *International journal of environmental research and public health*, 18(12), 6510. <https://doi.org/10.3390/ijerph18126510>

Mullis, I. V. S., & Martin, M. O. (Eds.). (2015). *PIRLS 2016 Assessment Framework (2nd ed.)*. Boston College. <https://timssandpirls.bc.edu/pirls2016/framework.html>

Mullis, I. V. S., von Davier, M., Foy, P., Fishbein, B., Reynolds, K.A., & Wry, E. (2023). *PIRLS 2021 International Results in Reading*. Boston College, TIMSS & PIRLS International Study Center. <https://doi.org/10.6017/lse.tpisc.tr2103.kb5342>

Peras, I., Klemenčič Mirazchijski, E., Japelj Pavešić, B., & Mekiš Recek, Ž. (2023). Digital versus Paper Reading: A Systematic Literature Review on Contemporary Gaps According to Gender, Socioeconomic Status, and Rurality. *European journal of investigation in health, psychology and education*, 13(10), 1986–2005. <https://doi.org/10.3390/ejihpe13100142>

- Rich, M. (2008). Literacy Debate: Online, R U really reading? *The New York Times*.  
<https://www.nytimes.com/2008/07/27/books/27reading.html>
- Schugar, J. T., Schugar, H., & Penny, C. (2011). A Nook or a Book: Comparing College Students' Reading Comprehension Levels, Critical Reading, and Study Skills. *International Journal of Technology in Teaching and Learning*, 7(2), 174-192.
- Singer, L. M., & Alexander, P. A. (2017) Reading Across Mediums: Effects of Reading Digital and Print Texts on Comprehension and Calibration, *The Journal of Experimental Education*, 85(1), 155-172,  
<https://doi.org/10.1080/00220973.2016.1143794>
- Wallace, R. M., Kupperman, J., Krajcik, J., & Soloway, E. (2000). Science on the web: students online in a sixth-grade classroom. *The Journal of the Learning Sciences*, 9(1), 75–104. [https://doi.org/10.1207/s15327809jls0901\\_5](https://doi.org/10.1207/s15327809jls0901_5)
- Wolf, M. (2018). *Reader, Come Home: The Reading Brain in a Digital World*. Harper.

## 附錄 國小學生雙閱讀素養導向評量

### 題組一



2023/10/30 星期一 癸卯年九月十六

加入會員 | 登入會員

年/月/日

新聞關鍵字



時事

社論

教育

公民素養

科學新知

藝文天地

#### (一)勇敢對抗罕見疾病 孫翊倫同學獲得熱愛生命獎章

周大觀文教基金會昨天頒發全球熱愛生命獎章給高雄市登發國小罕見疾病學童孫翊倫。他先天發育不全，脊椎彎曲達七十度，雙腳變形，至今仍找不出疾病原因。孫翊倫說，他須靠游泳擴胸，來避免臟器壓迫，但這種痛和疾病讓他更想活下去。希望未來能從事電腦程式設計的工作，研發協助身心障礙者的生活輔助系統的工具。

登發國小校長范秋芬說，孫翊倫現在就讀六年級，他須每天游泳，仰賴擴胸運動來避免器官壓迫而死亡。因為身體無法成長，體內器官卻不斷長大，造成翊倫的脊椎壓迫心臟，現在連游泳也會痛。

周大觀基金會創辦人周進華表示，孫翊倫有時會到廟宇、慈善機構、活動中心，分享自己努力生活的心得。他曾榮獲高雄市語文競賽閩南語朗讀南區第一名、身心障礙運動會游泳項目雙面金牌及二〇二〇年總統教育獎。

#### (二)熱愛生命小巨人 印度學生賈內許分享奮鬥故事

周大觀文教基金會去年將「全球熱愛生命獎章」頒給身高僅九十四公分的印度醫科學生賈內許·維薩拜·巴萊亞(以下簡稱賈內許)，今年來桃園分享他爭取自身權利，進入醫學院就讀的故事，讓人們看到他的勇氣和毅力。

賈內許出生印度窮困的農村家庭，因患侏儒症，以致個頭只有成年人的一半高，體重十八公斤。但他更加努力讀書，以高分考取醫學院。但五年前校方以身高不夠無法當醫生的理由，拒絕他進入印度公立醫學院。經過上訴到印度最高法院後，判定他可以進入醫學院。

今年年底賈內許將正式工作。他決定要到最窮苦的偏鄉當醫生，照護當地的年長病患。而這位小巨人的奮鬥故事，在網路上感動了三億五千人。

(改寫自國語日報)

◎請根據題組一之內容，回答以下問題

1.文章(一)中，孫翊倫的罕見疾病有什麼樣的症狀？請寫出兩項症狀。

(1)\_\_\_\_\_

(2)\_\_\_\_\_

( ) 2.文章(一)中，孫翊倫為了避免死亡，他做了什麼事情？

(A)研發一套生活輔助系統

(B)分享自己努力生活心得

(C)參加比賽獲得各項金牌

(D)持續游泳仰賴擴胸運動

3.為什麼文章(一)的孫翊倫到處分享他努力生活的心得？請推測你覺得他到處分享的一個可能原因。

\_\_\_\_\_

( ) 4.作者藉由文章(二)，最主要想告訴大家什麼涵義？

(A)賈內許獲得全球熱愛生命獎章

(B)賈內許的故事感動了三億五千人

(C)賈內許當上醫學生，今年年底將開始工作

(D)賈內許讓人們看見面對困難的勇氣與毅力

( ) 5.如果我們對文章(二)的賈內許有興趣，網路要搜尋哪一組關鍵字能查詢到最多有關賈內許的資料呢？

(A) 全球熱愛生命獎章

(B) 周大觀文教基金會

(C) 賈內許·維薩拜·巴萊亞

(D) 奮發讀書，高分考取醫學院的學生

6.這兩位生命鬥士在個性上有什麼共同的特色？請列舉出2個。

(1)\_\_\_\_\_

(2)\_\_\_\_\_

( ) 7. 阿芸想知道做什麼事可以獲得獎章，進入周大觀文教基金會網站後出現以下畫面。

下面哪一部分可以知道申請的條件？

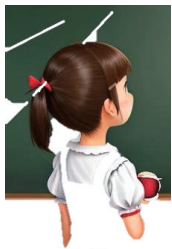
### 全球熱愛生命獎章辦法



- (A) 一、宗旨：為提倡「熱愛生命」之精神，並鼓勵在各自領域有具體作為足以實踐事蹟者。  
二、對象：全球各國人士。
- (B) 三、申請類別：  
(一)勇敢事蹟：不畏環境艱難或疾病痛苦，而能呈現其勇氣與毅力足資褒揚者。  
(二)愛心事蹟：捨己救人，友愛孝親或其他愛心事蹟，散發人性之光與熱足資褒揚者。  
(三)努力事蹟：就其個人資賦，因努力不懈，超越上天賦予之極限，其精神可讓世人學習褒揚者。  
(四)成就事蹟：經長期奮鬥，鍥而不捨，終能有所成就而嘉惠社會大眾者。
- (C) 四、推薦辦法：各機關社團、學校或個人均得依據本辦法向本基金會推薦候選人(書面+電子檔資料各乙份)。  
(一)推薦請使用規定之推薦表，填妥申請類別，具體優良事蹟外並檢具有關證明資料文件。  
(二)請附候選人自傳一篇(可由候選人父母或推薦人代筆，至少五千字)，內容包含候選人之優良德行、傑出成就或奮鬥經過及對周遭影響與社會貢獻。  
(三)請附與候選人優良事蹟之有關照片五十二張(包括二吋照片二張及生活照五十張)。
- (D) 五、推薦時間：每年三月一日起至六月卅日止。  
六、評審：由本基金會銘聘社會公益賢達人士五至七人組成評審委員會，就各地所彙整候選人資料逐一進行初審、派員調查、複審、決審程序評定得獎人選。

(節錄自周大觀文教基金會)

## 題組二 姊姊是外星人



小小年紀的我，一直懷疑姊姊有特異功能。她很可能是外星人送來地球的密探。

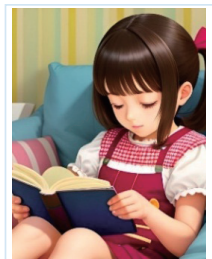
媽媽說姊姊從小就不愛哭，乖乖地吃飽睡，睡飽吃。從這件事就可以看出姊姊有多奇怪。媽媽說我從小就愛哭，是一個愛哭鬼。可是，哪一個孩子不愛哭呢？媽媽不理會我的抗議，她繼續提醒我，姊姊比較不愛哭，比較好帶。我不會在意媽媽怎麼說，因為我得隨時注意我的姊姊。也許有一天，我會看到外星人來找她。為了這個偉大的計畫，我很努力地當姊姊的跟班，她到哪裡，我就跟到哪裡。

經過我不斷的觀察和跟蹤，我發現姊姊真的有特異功能。

我和姊姊讀同一所小學。早上，為了準時到學校，我得放棄跟蹤姊姊。這實在是在不得已的，姊姊總是慢吞吞的起床，慢吞吞的刷牙，慢吞吞的吃早餐，慢吞吞的…。我只要跟她一起上學，一定會遲到。奇怪的是，她的老師會打人，可是她從來不怕遲到。

早上沒和姊姊一起上學，下課時，我喜歡到姊姊的教室去巡視一下。通常，她又被老師罰站了。什麼原因？當然是沒寫作業。我的姊姊從不寫作業，她寧願挨老師打或是罰站，也不肯寫作業。她告訴我：「都會了，為什麼要寫？」

不寫作業，那她都做些什麼呢？她可忙著呢。打彈珠、跳房子、玩橡皮筋、騎單車……還有她最喜歡做的-看故事書。有時候，一回到家，書包一放，立刻繼續看沒看完的故事。只要她一拿起故事書，誰也沒法兒讓她把書放，除非她自己讀完了，讀累了。她可以一邊看書，一邊吃飯；一邊看書，她一邊洗澡；一邊看書一邊走路去買醬油…。有時候，沒有新的故事書可以看，她會把舊的書再看一遍。奇怪的是，看第二遍、第三遍、第四遍，還是可以旁若無人地看得津津有味，再吵的聲音都不會影響她的專心。這種現象都叫我不得不懷疑她是外星人。



不過，這還不是最令我大惑不解的事。最令我百思不得其解的，是她每次月考都是班上第一名！不僅我很困惑，連她的老師都很困惑。我猜，她的老師心裡一定在想：「這個不寫作業的學生怎麼老是考第一名？她會不會有什麼特異功能？」

嗯，我想，她的老師可能沒有這麼聰明。他一定會先想到：「這個學生會不會作弊？」不過，姊姊的老師從來沒有抓到姊姊作弊的證據，而姊姊卻一直考第一名。這就是特異功能。

(改寫自樊雪梅〈姊姊是外星人〉—《兒童散文精華集》馮輝岳編輯/小魯文化出版)

◎請根據題組二之內容，回答以下問題

8. 從作者的敘述中，我們瞭解到姊姊是個怎樣的人。

請寫出三個作者認為姊姊有特異功能的地方。

(1)\_\_\_\_\_

(2)\_\_\_\_\_

(3)\_\_\_\_\_

( ) 9. 姊姊看書的時候，不會做什麼事情？

(A) 吃飯

(B) 洗澡

(C) 買醬油

(D) 做功課

( ) 10. 姊姊成為班上第一名最有可能的原因是什麼？

(A) 她被外星人附身

(B) 她閱讀很多書籍

(C) 她作弊能力厲害

(D) 她不寫任何作業

( ) 11. 下列哪一個選項是這篇文章的主要涵義？

(A) 作者和姊姊讀同一間小學

(B) 作者的父母比較喜歡姊姊

(C) 作者的姊姊段考都是第一名

(D) 作者和姊姊的特質差異很大

12. 為什麼媽媽要一直提醒作者「姊姊比較不愛哭，比較好帶。」？

請寫出一個媽媽可能的用意。

---

( ) 13. 作者很好奇外星人的長相，以關鍵字搜尋得到下列幾個網站。

請問：下列哪個網頁能滿足作者的好奇心？



學術知識服務網

<https://ref.ncl.edu.tw> › 知識共享圖-文章, 檢視文章

(A)

## 世界上真的有外星人嗎？如果有的話，外星人長什麼樣子？

外星人是人類對地球以外的智慧生命的統稱。古今中外一直有關於外星人的假想，在各國史書中也有不少疑似外星人的奇異記載，但現今人類還無法確定是否有外星生命，甚至是外星 ...



維基百科

<https://zh.wikipedia.org/zh-tw> › 外星+人

(B)

## 外星+人- 維基百科，自由的百科全書

《外星+人》（韓語：외계+인1부；英語：Alienoid），是一部2022年上映的韓國奇幻科幻動作片，由崔東勳編導，柳俊烈、金宇彬、金泰梨、蘇志燮、廉晶雅、趙祐鎮及金義城 ...



PanSci 泛科學

<https://pansci.asia> › archives

(C)

## 為什麼外星人音訊全無？

從物理學的角度來看，「探測尺度」和卡爾達尚夫指數的「能量」其實也是可以呼應的。由於相對論告訴我們宇宙中萬物都有一個速限，也就是光速，這意味著無論是能量、溫度、 ...



教育部重編國語辭典修訂本

<https://dict.revised.moe.edu.tw> › dictView

(D)

## 辭典檢視[外星人: ㄨㄞˋ ㄊㄧˋ ㄌㄨˋ ㄇㄢˊ]

外星人: ㄨㄞˋ ㄊㄧˋ ㄌㄨˋ ㄇㄢˊ; 外星人 · ㄨㄞˋ ㄊㄧˋ ㄌㄨˋ ㄇㄢˊ · wài xīng rén · 地球以外，其他星球上的人類或是具有高等智慧的生物。

（節錄自 google 搜尋引擎）

請翻面繼續作答，加油！

## 題組三



...

今天要介紹的是 #高空作業員\_\_壁虎

這個怪咖發出聲音，並不是要嚇人，壁虎「先生」是為了求偶而大唱情歌，所以在每年春夏之際的求偶繁殖期，雄壁虎會叫得更加頻繁，然而，這一切都是為了得到壁虎「小姐」的青睞，都是因為愛啊！

#南北壁虎大不同？

小時候常常聽人說：「南部的壁虎會叫、北部的不會叫。」其實這都是傳說，事實上，是因為壁虎品種不同才有這樣的差異，其實我們常說的「壁虎」只是一個通稱，事實上並不都是同一種，像最常出現在家中的就是疣尾蜥虎和無疣蜥虎，這兩種壁虎外型十分相似，「會叫的」是疣尾蜥虎，最初分布在台灣南部，身上有疣鱗，尾巴有刺狀鱗像狼牙棒；而另一種被認為「不會叫」的無疣蜥虎棲息地偏北部，身上沒有疣，尾巴沒有刺狀鱗片。不過，這裡要為無疣蜥虎平反一下！它們並非不叫，而是叫聲的音量很低，所以並不明顯。

#飛簷走壁高手

壁虎最厲害的特異功能就是攀牆術了，牠們腳上並沒有吸盤，卻能飛簷走壁而不掉下來，都要歸功於腳掌上一條條指瓣之間的細小絨毛，大大地增加附著面積，好讓自己可以貼在牆壁上，如果你手上沒有和牠一樣的構造，奉勸你不要輕易嘗試！

#為了活命而切割

除了爬牆，壁虎也是逃生高手，「斷尾求生」是牠的保命密技，牠們在遭遇到天敵時，尾巴會突然斷裂，斷掉的尾巴會持續扭動，引開掠食者的目光，讓牠有時間逃跑得以保住性命，而斷尾的個體在一段時間內，很快的就會長出新的尾巴。有這超強的求生術，稱牠們為善於「切割」的大內高手，一點都不為過！

（改寫自黃一峯〈壁虎〉。出自《怪咖動物偵探：城市野住客事件簿》/三采出版社）



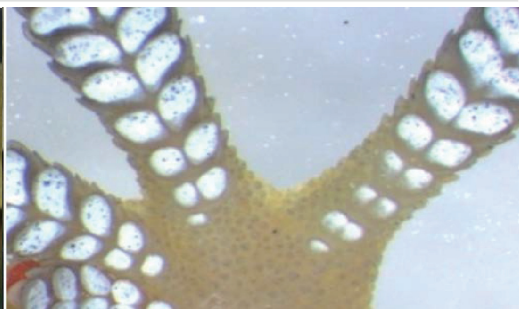
讚



留言



分享



圖片節錄自 [Let's 探索家中昆蟲](#)·國立自然科學博物館



作者

動物知識分享

壁虎求生的方式還有很多，有誰知道呢？

## #斷尾求生

當壁虎被敵人攻擊時，會把自己的尾巴切斷，留下跳動的尾巴吸引敵人注意，然後趁這個機會逃跑。

## #咬尾也求生

如果掠食者沒有將尾巴吃掉，壁虎會在危機解除後，回來把斷掉的尾巴吃掉，一點都不浪費珍貴的食物。

壁虎的體色會隨著環境改變來改變深淺，這也是避免被掠食者發現的策略！

◎請根據題組三之內容，回答以下問題

14. 文章提供了疣尾蜥虎和無疣蜥虎這兩個品種差別。

請舉出三種相異的特質並填入空格。

	疣尾蜥虎	無疣蜥虎
不同處 1		
不同處 2		
不同處 3		

( ) 15. 為什麼壁虎能貼在牆壁不會掉下來?

- (A) 腳上有吸盤，可以增加附著力量
- (B) 腳上有細小絨毛，可以提高附著面積
- (C) 腳上有黏著劑，可以分泌黏液以抵抗重力
- (D) 腳上有保命密技，可以啟動斷尾求生機制

( ) 16. 本文最後一段話寫「稱牠們為善於切割的武林高手，一點都不為過!」，為什麼用武林高手來結束這篇文章呢?

- (A) 提供問題的形成原因
- (B) 引起對壁虎的想像
- (C) 舉出反面例子強調主張
- (D) 幫助了解壁虎的危險性

請翻面繼續作答！

( ) 17. 阿任很認真觀察無疣蜥虎，向朋友描述驚嚇壁虎的故事。

請問阿任可能說錯哪一段話了？

- (A)我昨天看到的壁虎體色比較淺，可能是因為環境的關係
- (B)我去嚇壁虎，牠馬上把尾巴切斷，留下一段會搖的尾巴。
- (C)牠之所以稱作無疣蜥虎，是因為沒有尾巴。
- (D)沒想到不久後，壁虎回到現場把斷掉的尾巴吃掉！

( ) 18. 小芸想更深入了解壁虎，搜尋另一個網站，看到下面資料。

哪一部分能讓小芸更知道壁虎飛簷走壁的攀牆方式？

## Let's 探索家中昆蟲

活動 **居家生物** 防治小撒步 觀察與探索 知識加油站 問與答 相關連結

- (A) 壁虎生與死？蜥虎為卵生動物，行有性生殖，一次可生兩顆卵，卵殼不相連，從小到大其體態外形除了大小顏色外，其餘變化不大。
- (B) 對人類影響？蜥虎主食為昆蟲，以居家環境來看是對人類有益的動物，但有時所遺留的排泄物會令人感到厭惡。
- (C) 減少壁虎的方法？家中保持乾淨整潔，以避免蜥虎的獵物如蟑螂、蚊蟲等孳生，可減少蜥虎進駐家中取食。
- (D) 驚人事蹟？壁虎為什麼能在天花板、牆壁，甚至玻璃窗上來去自如呢？一般認為壁虎足的附着力來自於腳趾上毛狀分岔構造，這種構造與接觸面表面分子產生交互作用，使壁虎可以抵抗重力作用。而又有學者發現在這些構造上會產生磷脂質一類的物質，可以保護足墊減少

(節錄自 Let's 探索家中昆蟲-國立自然科學博物館)

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## 雙語教師情緒勞務：艱辛路的情境脈絡

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### 摘要

雙語政策在國內如火如荼進行，教育政策之成功與否與執行的教師息息相關，因此本研究將透過半結構訪談以及文件分析，探討雙語教師情緒勞務產生的情境脈絡以及描述教師的情緒勞務表現形式。研究發現情緒勞務脈絡來自於鉅觀的雙語教育政策和微觀的自身的教學信念、教學上的負擔跟與學生、同事跟行政的關係。而雙語教師面對不同的脈絡情境的情緒展現不同，面對入校輔導教授團隊傾向於「表層情緒偽裝」的「虛心接受」。對於長時間的備課身心都感到疲憊，教師能轉化自己的情緒，「主動深層展現」對雙語教育的自身信念，在面對學校同事，也從一開始的「忍氣吞聲」跟「委曲求全」的「表層情緒偽裝」，到後來透過情緒轉化的「被動深層展現」來解決自己情緒的困境。

關鍵詞：情緒展現形式、情緒勞務脈絡、雙語教育

## **Bilingual Teachers' Emotional Labor: the Context of the Difficult Road**

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### **Abstract**

The bilingual policy is being actively implemented nationwide, and the success of educational policies is closely tied to the teachers responsible for their execution. Therefore, this study employs semi-structured interviews and document analysis to explore the contextual factors contributing to bilingual teachers' emotional labor and to describe the ways in which they express and manage emotional labor. The study found that the context of emotional labor comes from the macro and micro perspectives. Bilingual education policy found is the main macro-level resource of bilingual teachers' emotional labor. From micro-level perspectives, it's known that the bilingual teachers' emotional labor resulted from teaching beliefs, teaching burden, and the relationships with students, colleagues, and administration. In terms of manifestations of teachers' emotional labor, bilingual teachers showed different emotions in different contextual situations. The bilingual teachers facing school counseling tends to accept modestly, which was the manifestation of emotional "surface acting." Feeling physically and mentally exhausted from long hours of lesson preparation, bilingual teachers could transform their emotions to express their own belief in bilingual education positively, which called "deep acting." To solve their emotional dilemma, bilingual teachers utilized emotional transformation. When bilingual teachers faced school colleagues, the manifestation of emotion was also changed from the "superficial emotional disguise" at the beginning, which means "swallowing one's breath" and "begging for perfection", to the "passive deep acting."

**Keywords:** manifestation of emotional display, emotional labor context,  
bilingual education

## 壹、前言

2018 年 12 月行政院發布「2030 雙語政策藍圖」，推動國中小實施「英語課全英語授課，部分領域雙語授課」（教育部，2021）。至 2022 年，全國已有 949 所公立國中小進行部分領域雙語教學，其中嘉義市與台北市推動比例最高（李昀修，2022）。雙語教育雖快速擴展，但政策指引尚未明確，實務操作上也存在多頭馬車現象，輔導學校與教材編撰者之間對雙語教學理念也不一致（劉十賢，2021）。雙語教學推行多年仍面臨挑戰，包括師資不足、教材匱乏與城鄉差距等問題（田耐青，2020；羅文杏，2021）。其中，師資問題尤為關鍵。目前 CLIL 教學模式多由英語教師擔綱，或與外籍教師協同教學，但現有英語與學科教師大多未具備雙語教學專業知能，增加了其備課與教學負擔（羅文杏，2021）。儘管政策執行面存有諸多困境，許多學校仍視雙語教育為績效指標，甚至為吸引生源的重要策略。

然而，這樣的期待與壓力亦對雙語教師造成心理負擔，可能引發「情緒勞務」（emotional labor）現象。Hochschild（1983）指出，情緒勞務工作者需與對象進行面對面或語音互動，並表現特定情緒，教師符合其中兩項，屬於「高情緒勞務工作」的一環（Adelmann, 1989）。教師在與學生、家長、同儕、行政人員互動過程中，經常需管理與調整情緒，以維繫專業形象與人際關係（Hargreaves, 1998）。情緒勞務不僅存在於與他人互動的微觀層面，也受到政策與社會結構等鉅觀脈絡影響（Hargreaves, 1998；Saarni, 2000）。因此，理解雙語教師情緒勞務的脈絡，有助於掌握其情緒展演背後的制度壓力與文化期待。

情緒勞務研究最初聚焦於服務業，近年逐漸延伸至教育領域，已有研究探討教師的情緒勞務產生情境、表現形式與其影響（江文慈，2009；沈碩彬、黃文三，2017；孫俊傑、龔心怡，2010）。然而，現有研究多集中於幼教師、導師與輔導教師，鮮少針對雙語教師。再者，多數研究採用量化問卷，較難揭示情緒勞務在具體情境中的展現樣貌。雙語教師作為政策實踐的關鍵推手，其情緒勞務實應受到重視，並需透過質性方法深入理解其經驗。

本研究旨在填補上述研究缺口，並以國小雙語教師為對象，透過質性訪談與文件分析，深入探討其情緒勞務的脈絡與展演形式，具體研究問題如下：

1. 國小雙語教師情緒勞務產生的情境脈絡為何？
2. 國小雙語教師的情緒勞務表現形式為何？

## 貳、文獻探討

### 一、國小雙語教師教學現場的困難與工作負擔

#### (一) 多頭馬車的雙語政策，雙語教學模式定調未明

雙語教育近年在國內迅速推動，目標是在課程中融合兩種語言進行學科教學，促進學生學科理解與英語習得(林子斌，2020；盧博安，2021)。目前常見的教學模式包括 CLIL(內容與語言整合教學)、沉浸式教學，以及 EMI(全英語授課)(廖偉民，2020)。然而，從鉅觀角度來看，中央未明確訂定統一指導原則，各縣市對政策解讀不一，導致教學現場混亂。此情況造成教師面臨多種教學模式並存的執行壓力。部分教師依賴教育部派遣教授指導，部分則自行進修摸索適用方式，顯示中央政策與現場實務脫節。模糊的政策方向與缺乏明確支持，使教師在教學模式選擇與實施上產生混亂與負擔，也突顯教師在制度不確定性下的情緒勞務壓力(劉十賢，2021)。

#### (二) 雙語教學執行上的困難與教師工作負擔

雙語教學在實施過程中面臨六大挑戰：師資數量不足、教師教學知能有限、協同教學困難、教材資源缺乏、學生語言能力差異，以及行政支持不足。首先，最核心的問題在於合格雙語教師數量短缺與其教學知能不夠。Çekrezi(2011)認為 CLIL 師資可為英語教師或學科教師擔任，然而在我國，欲成為雙語教師，除須修畢雙語教學六學分課程外，還需具備 CEFR B2 以上英語能力(教育部，2018)。目前仍未釐清應優先強化語言教師的學科能力，或學科教師的語言能力(王力億、林子斌，2021)。在缺乏合格雙語教師的情況下，多所學校採團隊合作制，由英文、級任與科任教師共備教案，整合教學知能(田耐青，2020)。然而，此方式雖可彌補知能不足，卻也顯著增加備課負擔與協調成本。

針對雙語教師專業知能，洪月女與陳敬容(2022)提出三大面向：學科知識、教學知識，以及雙語學科教學知識。其中學科知識涵蓋內容知識與學科語言能力；教學知識則指教學設計與教室管理等能力；雙語學科教學知能則聚焦於課程設計、教學任務與評量等。然而，現場多數老師僅具其中一種能力，兼具語言與學科知能者仍屬少數，加上多數縣市尚未普及教師增能訓練(葉若蘭、翁福元，2021)。為因應師資問題，協同教學成為可行策略。學科教師可透過英語教師協助，調整語言使用的難度(張承安，2022)，但此合作需整合不同專業教師的教學目標與方法(Dalton-Puffer, 2007; Valdés-Sánchez & Espinet, 2020)，需仰賴長時間共備。然而實務上，教師行程緊湊，共備時間難以安排(葉若蘭、翁福元，2021)。此外，

即使部分教師因參與雙語計畫而減課，仍常以超鐘點方式授課，進一步壓縮準備與共備時間。

教材資源不足也是重大挑戰之一。理想的雙語教材應整合課室語言策略、情境脈絡、任務設計與學科學習目標（劉述懿、吳國誠，2021；諶亦聰，2021）。目前僅台北市開始編寫部分領域的雙語教材，並於「酷課雲」開放全國教師下載（諶亦聰，2021）。其他縣市教材開發進度緩慢，多數教師仍須自行設計課程與編寫教材，造成極大教學壓力。學生的英語程度不一，也是影響教學成效的變數。教師需提升學生課堂語言使用頻率，並設計兼顧語言程度與學科目標的課程，避免學生產生挫折與無助感（張承安，2022；葉若蘭、翁福元，2021）。

除了上述教學面挑戰，行政支持系統的缺位亦是關鍵問題。雙語教育的推展應為全校共同投入的系統工程，而非個別教師孤軍奮戰（林子斌，2020）。然而實務上，雙語教學人力配置常排擠其他領域教師，導致校內師資結構失衡；同時，超鐘點授課亦加重教師工作壓力（諶亦聰，2021）。

綜觀上述，雙語教師在教學現場遭遇的種種困難，構成沉重的情境壓力與專業挑戰。這些壓力進一步引發教師的情緒反應，可能導致情緒勞務的出現。儘管國內已有研究探討雙語教學推行問題（葉若蘭、翁福元，2021；劉述懿、吳國誠，2021；諶亦聰，2021），但鮮少從這些困境出發，深入分析其對教師情緒勞務的影響。Kelchtermans（2005）指出，教育改革政策的成功與否，端賴教師的參與與實踐。因此，理解教師在政策脈絡下的情緒勞務經驗，不僅有助於政策修正與學校支持系統的建構，也能深化我們對教學現場中情緒工作的理解與關懷。

## 二、教師情緒勞務相關研究

### （一）教師情緒勞務情境脈絡的相關研究

情緒勞務首先是 Hochschild 於 1983 年提出，情緒勞務為「理解、評估與管理自己與他人的情緒」，而這裡的他人包括外部顧客(例如：消費者)、內部顧客(例如：同事、行政主管)和自己（Hochschild, 1983）。綜言之，情緒勞務本身是一種獲取利益或是達成目標的籌碼，在脈絡裡人與人的互動過程中，行為者必須為了符合所在組織的要求而控制與管理自身情緒，而根據上述的定義運用到本研究，雙語教師是情緒付出者，外部顧客為購買服務的學生與家長，而內部顧客則是組織內的同事、行政長官或是入校提供諮詢的專家。

關於情緒勞務的研究，以服務業為研究對象居多（Ashforth & Humphrey, 1993；Hochschild, 1983；Morris & Feldman, 1996；林尚平，2000），若應用於教育領域，則需重新思考教師在職業身份、社會期望與情感規範之間的特殊位置。Hargreaves(1998)指出，教學是一種高度情緒化的工作，教師的情緒不僅關涉人際

互動，更與教育改革、政策壓力及專業認同深度交織。相較於單純的組織要求，教師的情緒勞務應視為一種動態的專業實踐。例如教師面對學生必須「展現活力」，有時必須「假裝生氣」進行班級經營，面對家長批評儘管內心充滿「充滿挫折、憤怒」，但還是要「忍氣吞聲、和顏悅色」，因此在教育領域中的情緒勞務之探究逐漸興起（Nazari & Karimpour, 2023; Sulaiman, 2022; Tschannen-Moran, 2017; 江文慈，2009；李新民、陳蜜桃，2006；沈碩彬、黃文三，2017；孫俊傑、龔心怡，2010；張乃文，2009；張純子、洪志成，2008；張淇涵，2024；賓玉華，2019）。

李新民與陳蜜桃（2006）以問卷探討幼兒教師情緒勞務與工作倦怠的關係，指出「工作焦點情緒勞務」為主要心理負荷來源，並導致倦怠。然而，量化研究未能揭示具體的情境脈絡與情緒展演方式。胡惟諭等人（2017）亦採問卷分析幼兒教師的情緒勞務、角色壓力與工作滿意度，將情緒勞務分為「基本表達」、「深層偽裝」、「情緒多樣性」與「互動程度」四構面，雖涉及與學生、同事及家長的互動，但仍難細緻呈現背景脈絡與不同教師間的差異。相較之下，江文慈（2009）以質性訪談深入剖析國小教師正負向情緒展演與心理調適歷程，雖具深度，卻較少著墨於情緒勞務產生的情境背景。此外，導師與雙語教師的職務特性不同，情緒勞務的形成脈絡亦應有所區別，顯示過往研究對雙語教師此面向關注不足。

而除了教師的自身教學信仰以及與學生、同事、家長之間的互動與衝突會產生情緒勞務之外，鉅觀的教育政策也是教師產生情緒勞務的脈絡之一，Sulaiman（2022）指出在馬來西亞課程改革的情境下，教師的情緒反應與專業認同建構呈現高度動態性。在國內教育基本法規定：「國民教育階段內，家長...得為其子女之最佳福祉，依法律選擇受教育之方式、內容及參與學校教育事務之權利」（教育基本法，2013）。家長教育選擇權意識高漲，教育市場化的結果讓各學校在少子化的危機中講求辦學的績效積極提高學校效能，以吸引家長選擇讓孩子入學（吳清山，1998），而這也進一步讓教育現場的老師工作負擔提升。

針對雙語教師情緒勞務的研究，Tschannen-Moran（2017）指出，在語言政策與教育市場化交織下，雙語教師常需在制度期待與自身信念之間進行認同協商，這類心理勞務亦會轉化為情緒壓力。Nazari 與 Karimpour（2023）指出伊朗語言教師在跨語言教學過程中不僅需掩飾、表達與調整情緒，更在外在教學實踐與內在認同建構之間進行情緒協商，顯示情緒勞務與語言政策實施之間存在深刻連動關係。在國內張淇涵（2024）訪談了四位具有不同專業背景的國小雙語教師，探討他們在雙語教學過程中經歷的情緒勞務及其調適策略。研究發現，雙語政策實施的倉促與資源不足，加重了教師的情緒負荷，特別是在教師需同時承擔導師與雙語教師等多重角色的情況下。

綜合上述的研究情緒勞務產生的脈絡情境可能源自於教育政策、「顧客導向」的教育場域改變、教師在職場上「多重角色」的身分轉換。在雙語政策的推行下

教師是教育品質的關鍵，然而國內對於雙語教師情緒勞務之研究稀缺。因此本研究目的為凸顯出雙語教師在推動雙語政策下那些因素脈絡會產生情緒勞務，才能針對這些因素脈絡提出具體的解決此勞務的方案，讓雙語政策順利推行。

## (二) 教師情緒勞務展現的相關研究

Hochschild 根據 Goffman 所提出的戲劇理論：情緒表現是深受社會期待的影響，提出了情緒展演的形式——「表層演出」(surface acting)和「深層演出」(deep acting)的概念來說明人們如何透過情緒的控制跟管理來符合外界的期望。表層演出即外部表現符合組織期待的行為跟情緒，但與其內部的實際感受不一致；深層演出則是個人的內在情感改變成跟外部的感受一致，使偽裝出來的情緒如同真情流露、感同身受一般，亦即偽裝已經成為自我的一部份 (Hochschild, 1983)。Isenbarger 與 Zembylas (2006) 亦指出，教師的情緒展演與其對教育意義的理解密切相關，情緒實踐不僅僅是壓力的反映，也是專業成長與反思的重要機會。換言之，情緒勞務不只是「壓力管理」，更應被視為教師日常教學與專業發展的一部分。這樣的觀點有助於突破傳統情緒理論對教育情境之簡化理解，開展更具脈絡感的詮釋方向。

幼教教師的情緒展演可分為表層與深層兩種形式。表層情緒多表現在壓抑負面情緒、應對家長要求、對同事主管表現忍讓等；深層情緒則包含「被動深層偽裝」與「主動深層偽裝」，前者屬於同理、後者則能感同身受，展現出內在認同與情感投入。研究指出，表層演出愈高，情緒勞務負擔也愈重，進而導致較高的工作倦怠 (張純子、洪志成，2008；Hobfoll & Freedy, 1993)。沈碩彬與黃文三 (2017) 則透過問卷探討高中職教師的情緒勞務與學校生活適應的關係，提出情緒勞務可分為個人焦點（如表層演出、深層演出、真情流露）與工作焦點（如情緒規範、多樣性）等五構面。研究顯示，教師若能真情流露、不求回報地為學生付出，將有助於其學校生活的適應與正向回饋。

在探討教師情緒展演的原因方面，江文慈 (2009) 指出，正向情緒的表層展現可能來自於禮貌維持或壓力情境下的強顏歡笑；而深層情緒則與教學需求、專業認同或個人特質有關。當教師面對負向情緒時，可能採取三種策略：壓抑情緒、真實爆發或偽裝演出。雖然情緒爆發被視為一種抒發方式，能暫時緩解壓力，但在學校情境中，爆發往往需付出更大代價來修補人際關係，因此反而加重情緒勞務負荷。

整體而言，教師在不同情境中對情緒的選擇性展演，既反映了工作情境的壓力，也凸顯出其背後的情緒勞務動態。無論是正向或負向情緒的調節與展演，都深刻影響著教師的心理負荷與教學適應，顯示教育現場的情緒管理並非僅屬個人能力，更與制度脈絡與職務期待密切相關。

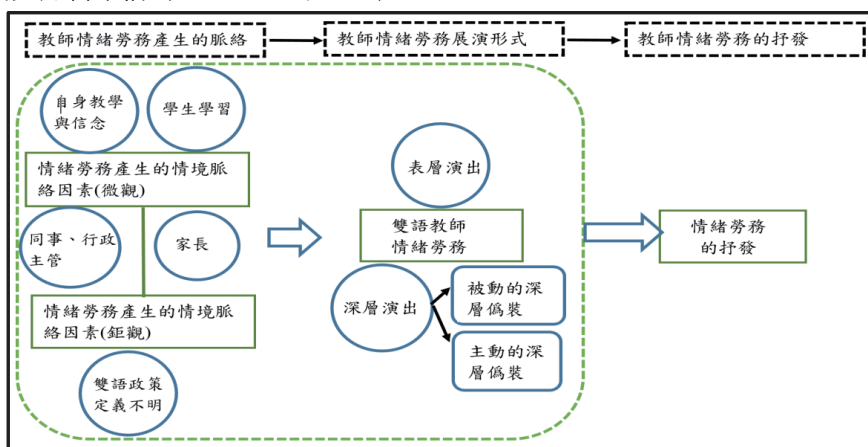
綜上所述，雙語教師的情緒勞務並非單一層面可解釋，而是制度脈絡、教育實踐與情感規範多重交織的結果。理解其情緒展演形式與應對策略，須納入鉅觀政策、學校組織與教師個人信念等因素的動態互動。張淇涵（2024）採質性研究，以國小雙語教師為對象剖析其在政策推動過程中的多重角色與情緒負荷，但該研究聚焦於個別教師的調適策略，較少對制度脈絡、教師信念與教學情境的交織互動進行整體性分析。因此本研究採取質性取向，透過訪談與文件分析，深入探討教師如何在政策與現場的多重張力中調節與展演情緒，補足量化研究在脈絡詮釋與情緒細節描繪上的限制。本研究不僅呈現雙語教師情緒勞務的具體樣態，亦揭示制度因素、教師信念與互動情境如何交織形塑情緒表現，有助於從情境化角度深化對雙語教育實施過程中情緒勞務的理解。

## 參、研究設計與實施

本研究採取質性研究途徑，並參考 Stake（2020）所提出之「集體個案研究」（collective case study）設計。所謂集體個案研究，乃透過多個個案的觀察與分析，理解某一特定社會現象的多樣性與共通性。與單一個案研究不同，集體個案研究強調跨個案的比較性詮釋，以揭示不同情境中個案經驗之間的交集與差異。研究者選取六位國民小學雙語教師作為個案，透過半結構式訪談與政策文件分析，蒐集其在雙語政策實施過程中的情緒勞務經驗，藉由橫向整合與對照，分析教師情緒勞務如何在不同脈絡中展現，並建構出教師情緒調節策略與制度結構之間的互動圖像，其分析架構如圖 1：

圖 1

本研究分析架構（Hochschild, 1983）



註：修改自 *The managed heart* (p.328~344), by. A. R. Hochschild, 1983, Berkely, CA: University of California Press.

## 一、半結構訪談的實施

### (一) 研究參與者

六位研究參與者是研究者從臉書社團「CLIL 可以唷-教學資源共享社群」和「雙語及英語授課教師社群」兩個社群平台所招募，為確保樣本具代表性，研究者特別考量教師所屬學校的地理分布（包括北部與東部）、雙語教育推動的成熟度（成熟實施與起步階段並具），以及教師所任教之科目（涵蓋自然、生活、美術、體育等），藉此涵蓋多元背景並呈現雙語教學實務的多樣性。所有受訪教師皆為現職參與地方政府或教育部雙語計畫之教師，具備第一線執行政策的經驗與洞見。該六位雙語教師的雙語背景如下，A 老師為外語系畢業；B 老師為英語跟美術雙主修；C 老師為美術專長且有 B2 英語證照，之前擔任過低年級雙語導師的職務；D 老師為英語教學所碩士生；E 老師為專責管理外師與英語村兼任行政教師，參與雙語計畫的執行，而 F 老師為體育專長，有國外留學的經驗，茲將六位研究參與者的資料簡述如表 1。

表 1

研究參與者之教育服務背景與訪談時間摘要表

代碼	性別	年資	雙語教學 年資	任教縣市	教授科目	訪談日期
A 老師	女	20	3	宜蘭縣	雙語自然; 英語	2022.12.19
B 老師	女	10	3	新北市	雙語美術	2022.12.20
C 老師	女	5	4	臺北市	雙語美術; 雙語綜合	2022.12.21
D 老師	女	5	3	臺北市	雙語生活;英語	2022.12.22
E 老師	女	12	5	新北市	雙語處主管	2022.12.23
F 老師	女	7	1	臺北市	雙語體育	2022.12.26

註：研究者自行整理

本研究六位參與者來自五所國小（皆為化名）：AA、BE、CC、DD、FF 小學。其中 B 與 E 教師同屬新北市的 BE 小學。AA 小學為宜蘭縣大型學校，自 109 學年度起推行高年級雙語自然課程。BE 小學設有英語村，聘有多位外籍教師與雙語教師協同授課。CC 小學位於臺北市郊，為 25 班中型學校。DD 與 FF 則位於臺北市區，規模皆為 24 班，兩校因雙語教學與新校舍吸引學生，轉型為總量管制學校。CC、DD、FF 三校因地處臺北市，約三分之一課程已實施雙語教學。

## （二）訪談方式

研究者說明研究目的並給予參與者研究同意書和訪談的大綱，利用 Google Meet 進行遠距訪談，並在訪談前詢問是否可以將訪談內容錄影或是錄音，訪談時間大約一到一個半小時。研究者盡最大努力保護研究參與者之權益，將訪談逐字稿請研究參與者檢核是否與其原意相符，若為曲解其意則修正之直到符合研究參與者的原意為止。

## （三）訪談大綱

為了達到有效的研究目的，研究者預先擬好了訪談大綱（見附錄一），訪談大綱的設計參考了過去有關教師情緒勞務（如江文慈，2009；張純子與洪志成，2008）以及雙語教學實施經驗之相關研究，並於初稿完成後邀請兩位熟悉質性研究與雙語教育領域的雙語教師兼研究生進行內容效度審查。根據所提供的建議修訂題項表述與順序，以提升研究工具的信實度，並在訪談前給予研究參與者先看過，以便讓參與者對受訪內容有大概認識。

# 二、文件分析

透過文本(text)呈現、協調、管理工作的內容，能夠串起工作的網絡，而工作者使用文本以實踐工作權利（Campbell & Gregor, 2002）。雙語計畫有許多規範雙語教師必須執行的工作與成果檢核，因此檢視文件有助於研究者對訪談所得結果進行驗證分析時的對照。本研究根據六位研究參與者學校所申請的雙語計畫，蒐集教育部學前及國民教育署 113 學年度國民中小學部分領域課程雙語教學實施計畫、台北市公立國民中小學雙語教育實施計畫與新北市 113-115 學年度國民小學雙語實驗課程領航計畫，此部分不僅可補充教師訪談中未涵蓋之政策脈絡、驗證與輔佐訪談所得之資料、找出雙語教師的情緒勞務脈絡，也有助於交叉檢視教師所述內容與政策文本之間的對應情形，進一步強化研究資料的可信度與詮釋深度。

# 三、資料處理與分析

本文以訪談跟文件分析方式蒐集所需的資料。訪談紀錄代號為 I，文件資料為 T。訪談透過錄音或是錄影轉譯成逐字稿之後並將之編碼組織資料，編碼方式第二碼為訪談對象，以英文字母 ABCD 等為教師代碼，接下來以數字表示該次的訪談時間，如「IA20221208」即表示 2022 年 12 月 08 日訪談教師 A 之內容。文件則依據取得資料之日期，加註代號和文件名稱，例如 T20240407 教育部國教署。

本研究採主題分析法進行訪談資料分析，資料經逐字稿轉譯後，依李藹慈（2013）方法分為三階段：敘述編碼、詮釋編碼與最高主題歸納。首先，敘述編碼針對逐字稿進行審讀，標記情緒經驗與語境語句，如「壓力下的表現控制」等。

接著，詮釋編碼將初步標記統整，辨識教師調適情緒的策略，如區分「表層演出」與「深層演出」。最後，透過最高主題歸納，將分析結果整合為核心主題，例：「教師專業形象維持」、「政策壓力下的教學調適」(見表 2)。

**表 2**  
**層次編碼舉例**

逐字稿內容	敘述編碼	詮釋編碼	最高主題
教授有提雙語的引導語句是不是分年級讓他們學會，但例如星星那你只能用中文那蠻怪的，可是我又不不好意思反映。	雙語定義不清	表層演出	壓力下的教學調適

資料來源:研究者自行整理

為提升本研究的可信度與資料詮釋的客觀性，研究者採用「受訪者確認」(respondent validation)進行驗證 (Creswell, 2002)。完成初步資料整理與主題歸納後，研究者主動聯繫受訪教師，提供其個別訪談逐字稿與彙整後的研究發現，邀請其針對內容的真實性與詮釋的合理性提供回饋意見。此過程有助於確保研究結果能忠實反映受訪者的經驗與觀點，避免研究者主觀意識介入分析過程。所有受訪者皆對分析結果表示認同，無提出異議。

## 肆、研究結果分析與討論

首先為了得知雙語教師情緒勞務的情境脈絡與展現方式，本研究將依據 Hochschild (1983) 情緒勞務的的衍生與展現方式為分析的架構，從資料中歸納出雙語教師的情緒勞務可從微觀與鉅觀角度探討，並對應不同的情緒展演方式，分析六位國小雙語教師的訪談資料和進行文件分析。

### 一、雙語教師情緒勞務脈絡情境

#### (一)對於雙語政策的信念

2030 雙語政策正如火如荼的推行，訪談中的雙語教師對於雙語教育都抱持正面的看法，但是面對 10 年期限跟一些未到位的配套措施，對雙語教師帶來很多的情緒衝擊。

**雙語這個一定可以推，只是我覺得真的有點太趕，因為師資還有老師身心靈準備好這件事情真的是十年是不夠的啦。(IE20221223)**

對於這個政策，我是只考慮小孩到底需不需要雙語的能力，我是覺得需要。母語教育還是要紮根，但是雙語教育可以同時並行，希望學生能夠自由在語言中穿梭。(IA20221219)

**新北市剛開始在推對雙語的定義其實還蠻模糊的，所以後來我們轉成 CLIL 的時候我們的那個組長有點跟教授吵架，組長直接跟教授說你的雙語定義到底是什麼？(IE20221223)**

本研究顯示，雙語教師面對師資不足、政策年限壓力與教學模式定義不清等問題，皆感受到情緒衝擊。中和國中視覺藝術教師孫菊君指出，現場教師多缺乏雙語教學訓練與資源（陳奕安、許家齊，2021）。葉若蘭與翁福元(2021)也提到，小校因班級數少難以共備，尋求校外支援亦不易。此外，雙語政策方向不明也造成現場混亂。林子斌教授認為，中央未明訂指導原則，導致教師執行困難與心理壓力增加（劉十賢，2021）。

## **(二)雙語「教」的負擔與學生「學」的反抗**

在雙語課程「教」與「學」過程中雙語教師都面臨了一些困難。研究中雙語教師都反映沒有雙語教材，導致於他們在備課的過程中很辛苦，需要花很長的時間摸索設計出適合學生的教材跟學習單，以及活動流程的安排。

**備課需要很多時間，因為我會找國外的教材材料，然後經過轉化，所以需要許多時間，也會針對每單元寫教案。我其實有被減課，但是其實我都超鐘點，所以我都寒暑假備課。(IB20221220)**

雙語綜合有另一位夥伴，但是說真得因為 loading 非常的重，他自己有雙語自然要顧……我有雙語美術，但我跟他又要把雙語綜合要備課出來，還要顧自己的本科(自然、美術)。其實比較花時間的是學習單。(IC20221221)

**改課綱的時候就沒有把雙語政策考慮進去，所以才導致說老師在現場自己想辦法去生出教材，現在就是沒有雙語教材，把現場的老師搞得很辛苦。(IE20221223)**

學校應自本署(國民及學前教育署)提供之專家學者名單內邀請專家學者入校或線上諮詢。每學年至少陪伴4次以上(其中至少含2次以上實際入校，餘得採線上諮詢方式辦理)。(T20240407 教育部國教署)

**備課真的超辛苦的，我還有聽說好不容易做出來了，還被教授批評到不行，教授因為本身的意念不同。(IA20221219)**

研究指出，雙語教材的缺乏是造成教師教學負擔的重要原因。劉述懿與吳國誠（2021）、湛亦聰（2021）皆指出，若有符合領綱指標的教材，將有助教師設計教學任務與策略，減輕備課壓力。然而，由於教材尚未普及，許多教師需自行設計課程與編寫教材，形成沉重負擔。雖然教育部提供專家入校諮詢，但雙語教師與專家意見不一，反而成為另一層情緒勞務的來源。此外，學生對雙語課程的反應也加劇教學挑戰。部分高年級學生因英語程度不足，對課程產生抗拒情緒；低年級實施雙語教學時，教師在班級經營與教學控制上亦面臨困難，導致額外的工作壓力與情緒耗損。這些來自教材資源、專業協作與學生反應的挑戰，交織構成教師在雙語教學現場中的情緒勞務來源。

*高年級學生上到雙語自然他們就會很抗拒，老師有反映高年級學習動機就很差了，然後把雙語課放在自然，學生動機會更差。(IB20221220)*

*我覺得雙語教育在高年級執行學生反抗一定是會有的，因為這些孩子在英語課堂就不喜歡英語，確實一開始是被動的，但是從一開始意興闌珊到後來因為活動有趣學生就不排斥了。(IA20221219)*

*小朋友的評價還是高的，但是開始有小朋友會反應說有些地方就是覺得有點難，那個期末教學滿意度調查表就是因為聽不懂，興趣的部份的分數有點掉下來。(IE20221223)*

學生英語程度不足是雙語教師面臨的重要挑戰（張承安，2022；葉若蘭、翁福元，2021）。雖然弱勢學生初期可能出現抗拒，但教師可透過雙語教學知能與趣味活動設計，逐步搭建學習鷹架，激發學習動機並提升語言能力。然而，教師在協助學生適應的同時，也須兼顧班級經營，面對學生的反抗與教學秩序的維持，承擔高度情緒勞務壓力。此外，教師需在保持課堂語言比例與實際教學管理之間取得平衡，擔心使用過多中文影響雙語教學目標，進一步加劇其情緒負擔，這些角色衝突與教學張力使雙語教師處於高度情緒調節的狀態。

### **(三)同事對雙語政策的不理解與不支持**

在研究中部份受訪者提及了同事對於雙語政策的不理解跟不支持，進一步因為排課的問題變成對雙語教師敵意，讓雙語教師在與學校同事的相處中增加許多情緒勞務。

*本來以前美術是那些資深老師最喜歡教的科目，結果被雙語老師搶走了，教室也被搶走了，但他們根本不知道雙語教師在做什麼，也不知道我們的壓力。(IC20221221)*

臺北市依規定之雙語課程總節數，模式一：每年段每周 8 節，彈性規劃至各學科。  
模式二：低年級每週 8 節，中高年級每週合計 14 節以上，以領域學習課程與彈性課程排課。(T20240801 台北市)

同事說為什麼雙語教師有超鐘點，他會覺得不公平，因為有超鐘點，所以薪水有高一點。其他老師覺得他們做其他業務也很辛苦，為什麼沒有多領錢。(IC20221221)

減課鐘點費：每年核配減課 12 節鐘點節數，各校除安排專責人力 1 名執行計畫外，應依據任務核予計畫參與人員減課節數。(T20240801 新北市)

去年外師跟全校的導師協同教學，結果是個大災難。開始執行後六年級老師反應激烈，覺得都已經學生難管了，為什麼不等雙語師培生出來，要急著實行。(IE20221223)

教學現場的老師也反映排擠到其他領域教師的員額數，影響校內師資結構（謙亦聰，2021），而面對來自於同事的情緒，雙語教師必須「理解、評估與管理自己與他人的情緒」，帶來了雙語教師本身的情緒勞務（Hochschild,1993），當與同事產生專業與信念的衝突時，就是教師情緒勞務發生的時候（江文慈，2009；張純子、洪志成，2008）。

#### **(四)來自於行政所指派雙語計畫任務所帶來的負擔**

學校的行政支持可以讓教師安穩的在教學現場打拼，但如果無法跟教師溝通反而是一味把雙語計畫所需要做的成果推給雙語教師，將會造成教師很大的工作負擔與情緒勞務。

我有時候會不知道我應該是聽教務主任還是雙語處主任的建議會比較好，所以當教務處跟雙語處發生衝突，我就看誰給我最後的指令。(IB20221220)

在導師對我上雙語綜合產生質疑時，主任他當時是可以出來講話的，雙語教師沒那麼偉大可以去決定學校排課的方向。(IC20221221)

原本主任都說他寫計畫，就這樣他前一個禮拜跟我說他寫不出來叫我寫，氣死我了，明明我一個月前有問主任我要準備什麼。(IB20221220)

參與本計畫之中籍英語教師團隊須參與本市「跨領域全英語授課獎勵實施計畫」，每學年至少送件 1 份，透過教學實踐與本市英語教師分享。(T20240522 新北市)

林子斌（2020）指出雙語教育是全校都需要投入共同營造出雙語環境，靠雙語教師一人是無法完成的，而當面對雙語計畫成果要求，在與學校行政人員的互動所產生的負向情緒會影響到教師教學效能（江文慈，2009；孫俊傑、龔心怡，

2010)。分析國內雙語計畫的要求時，也可以知道雖然申請計畫可以獲得經費，但雙語教師配合計畫要做的事情真的是一個不小的負擔。

*因為計畫申請才有外師，校長有沒有外師下不了台，所以都會繼續參加。  
(IE20221223)*

*沉浸式就某教授的要求很多，因為所有教案、課程計畫跟學習單在暑假就要交整個學年的東西在八月底完成，然後又剛好 108 在推行新課綱，所以過程真的很辛苦。  
(IE20221223)*

*沉浸式英語教學特色學校試辦計畫：每學期入校輔導至少 1 次，每次至少 3 小時，就教學方式、課程規劃等面向，提供專業諮詢輔導。學校亦可於校內建立教師專業學習社群，凝聚不同學科教師對英語融入各領域教學活動之共識。學校應以學期為期程，進行前測及後測，評估學生學習成效。(T20221223 教育部)*

綜合而言，鉅觀政策使雙語教育在學校中淪為績效競賽，學校為達 KPI，不僅回應縣市教育局要求，也希望藉雙語課程吸引生源。計畫成果壓力落在教師身上，使雙語教師面臨沉重負擔。備課困難、學生的負面反應、行政與教學理念的拉扯，皆為情緒壓力來源。此外，同儕對雙語政策的不理解與配合不足，也讓教師在人際互動中經歷高度情緒勞務，進一步加深其教學現場的挑戰。

## 二、雙語教師情緒勞務的表現形式

面對來自於整個鉅觀的雙語政策壓力，以及雙語教師與行政、同事、學生互動過程中所產生的情緒勞務，雙語教師會以不同的方式表現出來。雙語教師情緒勞務的表現包含「表層情緒偽裝」與「深層情緒演出」。

### (一)雙語教師的表層情緒偽裝

教師在面對情緒勞務的情境脈絡，需要控制自己的情緒做出「表層情緒偽裝」，因此「表層情緒」偽裝的程度愈高，則情緒勞務的負擔也愈高（張純子、洪志成，2008），表層的情緒偽裝容易帶來工作倦怠（Hobfoll & Freedy, 1993）。

#### 1. 對於同事的不友善，控制情緒，委曲求全

為了維持跟學校同事相處的表面關係和諧，雙語教師即使面對同事對於自己雙語教學工作內容的不理解時也選擇維持和平，希望能讓教學工作順利的完成。

*導師就把之前用綜合課拿來做什麼事情，像交通安全、性別平等、家庭教育的成果，所以就要雙語綜合教師來完成這些成果，好像就是眾矢之的。(IB20221220)*

**導師會覺得我都沒有處理好雙語體育課學生發生的事情，所以後來我就會提早回教室，所以我現在帶回去不會馬上離開教室，看到底還有什麼後續。(IF20221226)**

**面對六年級老師所帶來的衝突，說要等雙語師培生畢業進來學校任教再做雙語教育，我心裡在想說那你要退休讓人家進來啊！但表面還是裝作理解他們的難處。(IE20221223)**

本研究中雙語教師面對與同事之間的衝突時，他們多採取「表層的情緒偽裝」，只希望委曲求全可以讓自己的雙語教學工作更加的順利。例如上述 E 師在面對六年級同事的衝突時的心理歷程與之前研究提到教師「禮貌客套，印象整飾」(江文慈，2009)，或是顧及團隊合作，讓工作可以順利的推展(張純子、洪志成，2008；吳芷筠，2015)相符應，因此教師面對來自於同事的衝突，都會選擇委曲求全的心態。

## 2. 對於行政業務的要求儘量配合

雙語教師在面對行政所給予的工作，即便是增加許多的負擔，雙語教師都是會盡量符合組織的要求將工作完成，維持最起碼的相敬如賓，以便讓雙語教學的工作可以順利的推展。

**行政要求將雙語生活的教案從一年級寫到四年級，而且要把五年級跟六年級完成。因為政策要符合 1/3 的領域，所以我除了雙語美術，還寫了雙語綜合的教案，而且學校還把我們的教案集結成冊去宣傳，我覺得有違反我的著作權。(IC20221221)**

**學校應成立雙語教師共備社群：學校應安排領域教師與英語教師共同備課時間，所需經費由本局推動雙語教育計畫專案經費支應。(T20240801 台北市)**

**教授的計畫有提到說你要在校園當中成立的一個社群，但我覺得這個社群成立其實是沒有意義，應該是主任要成立社群，而不是老師自己成立社群。(IB20221220)**

Kemper (1993) 指出教師情緒表達會跟自己的文化以及社會結構有所相關，教師會根據當時的社會文化情境來調整自己的情緒，因此當面對來自於行政的壓力時，雙語教師在東方的社會文化中還是會選擇圓融的方式解決職場上遇到的壓力衝突。

## 3. 對於入校觀課輔導的教授建議表面式的接受

申請雙語教育都會有團隊教授入校的備課陪伴、觀課與議課。在這過程中雙語教師要準備每個月入校陪伴教授要觀看的教案以及觀課跟議課的所有的事務，

但是在這過程之中教授給予的一些建議，雖然心裡並不贊同教授的建議，但雙語教師大多只能接受跟修正。

*教健康的教授認為八個都要教到，但英語領域的老師覺得是可以用提問的方式...，還有跟我們一起共備的教授跟前面兩位來觀課的教授意見也不一樣，讓我們覺得有點無所適從。(ID20221222)*

*教育部的兩個教授團隊之間意見不太一致，但至少在全英語部份有鬆動了，因為CLIL有soft CLIL跟hard CLIL。入校備課陪伴，基本上就是兩個領域的教授要一起來，意見不同時他們就是會就是現場討論這樣子。(IE20221223)*

*教授有提雙語的引導語句是不是分年級讓他們學會，他覺得我一次給太多了，可是例如星星那你只能用中文那蠻怪的，可是我又不好意思反映，因為在場很多人。(IB20221220)*

對照本研究發現雙語教師對於入校來輔導或是訪視的教授給予的一些建議都是接受居多，雖然覺得教授可能不太了解真實的教育現場實務狀況，但還是會接受建議。劉十賢（2021）認為中央的雙語政策說的模糊造成教育現場的老師的慌亂、負擔跟壓力，在此次研究參與者的訪談中充分體現鉅觀的政策造成入校入校觀課輔導教授們給的建議歧異性，而雙語老師面對教授也只能採取表層情緒偽裝。

## (二)雙語教師的深層情緒演出

情緒的深層演出分為「被動深層偽裝」與「主動深層偽裝」。教師改變自己的內在情感變得跟外部表現出來的情緒一樣，為「被動深層偽裝」，而如果教師能夠進一步去同理，就是「主動深層偽裝」(Hochschild, 1983；林尚平，2000)。

### 1. 面對學校同事與行政間的關係，透過情緒轉化來解決困境

研究中的兩位受訪者在與行政跟同事的關係中，從一開始的選擇控制情緒、委曲求全與儘量配合，到後來的情緒轉化來解決自己的情緒困境，從「表層情緒偽裝」轉化成「被動深層偽裝」。

*應該說同事應該也不知道雙語教師在做什麼，無法理解雙語教師的辛苦、壓力跟努力，所以面對這些同事的紛擾，我也只能選擇看自己學生在學習時的正面回饋。(IC20221221)*

*經過這一個跟六年級導師的衝突，剛好啦！校長才能知道說這樣子強求不來的，所以這樣才能夠將外師跟科任老師共備，這個衝突反而可以讓外師跟科任老師搭配。(IE20221223)*

上述兩位雙語教師的情緒展現屬於「深層情緒演出」中的「被動的深層偽裝」，面對學校同事跟行政的不合理對待或是要求，兩位雙語教師都試著從別的角度來理解同事或是行政教師的作法，例如學生對雙語課程的喜愛或是衝突背後的好處，認同這份雙語教學的工作。

## 2. 雙語政策帶來的沉重工作負擔，卻也積極認同雙語政策帶來的效益

儘管雙語教師需投入大量時間準備課程、撰寫教案，並配合觀課與議課，多數受訪者仍肯定雙語教育對學生學科與英語能力的助益。即使在與同事、行政或入校教授互動過程中產生情緒勞務，教師仍普遍認同雙語教育的價值與正向影響。

*面對同事帶來的紛爭，持續下去的動力就是在教學上面學生覺得有趣、樂在學習，給我的 feedback 讓我覺得是讓我可以繼續在雙語教學上投注我的熱情的關鍵點。(IC20221221)*

*我覺得說這樣做(雙語教育)第一個對學生好，我也覺得有這個需要。我是只考慮小孩到底需不需要雙語的能力。(IA20221219)*

*雙語教育對於學生的英語能力有所提升，但是要持續，雖然學校同事可能私底下說為什麼課室用語要用英語，但是至少在學生面前還是會說，出發點都是為學生好。(IB20221220)*

一開始的雙語政策定義不明，其實對於教學現場的老師是有所困擾的(劉十賢，2021)，但隨著定義的逐漸明確，教學現場其實可以看出雙語教學的有效性。教師在這過程中已經將雙語教學過程中遇到問題的情緒，完全轉化成為了學生學習的效益，而自然得表現出合乎組織的情感規則，這是一種「主動的深層偽裝」甚至是真情流露，而真情流露是教師將工作當成志業最需要具備的特質(李安明等人，2012)。

## 3. 面對學生的學習反抗，真情流露給予積極的學習幫助與同理心

雙語教師在面對雙語課程時努力備課，但面對學生給的一些負面回饋，內心還是會有一些衝擊。研究中的雙語教師都能夠同理部份英語程度不好的學生在面對雙語課程時內心的壓力以及習得的無助感，雙語教師均能從課堂中英語使用量的比例調整、設計有趣的教學活動以及提供學生足夠的學習鷹架，讓學生能夠逐漸在雙語課程中獲得學科知識與進一步改善英語能力。

*學生覺得老師你為什麼要在美勞課講這麼多英語。我有私底下一個個問你們的困難點是什麼？小女生的回應就說他覺得英語就是很難，那些女生就不知道我在幹嘛，但了解完我的用意之後學生願意開始用英語回應我。(IB20221220)*

*我覺得雙語教育在高年級執行學生反抗一定是會有的，確實學生一開始是被動的，但是從一開始意興闌珊到後來因為活動有趣學生就不排斥了。(IA20221219)*

*在教四年級的雙語綜合的時候，他們一開始就是聽不懂，當時一開始我就是會調整將英語的比例減少。有一些會反應行為上，一兩個是表明都不想上課，很大的原因就是他們聽不懂，但是過一兩個月，他們就發現了沒有這麼的可怕。(IA20221219)*

雙語教育的推動不僅仰賴教師的專業與心理準備，也需要學生適應新的學習方式與語言挑戰。當學生因聽不懂產生焦慮時，教師需展現同理心，以「主動的深層偽裝」調整教學設計，減少學生挫折感（Hargreaves, 1998）。透過改變課堂活動與語言支援策略，協助學生逐步適應雙語情境。張承安（2022）與葉若蘭、翁福元（2021）也指出，提供語言使用機會與設計貼近程度的課程，有助減輕學生無助感並提升學習參與。此外，情緒勞務受文化與制度脈絡影響，Sulaiman（2022）發現馬來西亞教師在宗教信仰與社群支持下，能較有效調節改革壓力帶來的情緒；Nazari 與 Karimpour（2023）則指出伊朗教師在語言政策壓力下的情緒反應常帶有文化協商色彩。相較之下，台灣雙語教師須應對行政責任與政策要求，展演情緒時兼具「順應制度」與「個人使命」的文化特徵，呈現高度制度性情緒勞務的樣態。

### 三、雙語教師情緒勞務脈絡與情緒的表現形式

雙語教師的情緒勞務受多重情境脈絡影響，涉及個人信念、教學負擔、人際互動與行政要求等層面，雙語教師在不同情境下表現其情緒展演方式並不同，例如 E 師在面對學生對於雙語教學的反抗下的真情流露給予積極的學習幫助與同理心(主動深層展現)；在面對行政責任情境下透過情緒轉化來解決困境(被動深層展現)；以及同儕不友善互動情境下的回應(表層情緒偽裝)。因此本研究藉由 Hochschild（1983）所提出的「表層演出」與「深層演出」概念進行分析，從資料中歸納出雙語教師的情緒勞務可從微觀與鉅觀角度探討，並對應不同的情緒展演方式(表 3)。

表 3

國小雙語教師情緒勞務的情境脈絡和情緒表現方式

	情緒勞務的情境脈絡	情緒表現方式
微觀角度	1.自身對於雙語政策的信念	認同雙語政策帶來的效益(主動深層展現)
	2.雙語教學上的負擔	雖然雙語備課耗費心力,卻積極認同雙語政策帶來的效益(主動深層展現)
	3.學生對雙語教學的反抗	學生的學習反抗,真情流露給予積極的學習幫助與同理心(主動深層展現)
	4.學校同事對雙語政策的不理解與不支持	對於同事的不友善,控制負面的情緒委曲求全(表層情緒偽裝) 透過情緒轉化來解決困境(被動深層展現)
	5.行政的所指派任務負擔	對於行政業務的要求儘量配合(表層情緒偽裝) 與行政間的關係,透過情緒轉化來解決困境(被動深層展現)
鉅觀角度	1.雙語計畫所帶來的負擔	積極認同雙語政策為學生帶來的效益(主動深層展現)
	2.入校輔導教授的建議	教授建議表面式的接受(表層情緒偽裝)

註: 研究者自行整理

### (一)微觀角度：個人信念與教學現場的影響

教師對雙語政策的信念深刻影響其情緒勞務展現。當教師認同政策價值時，傾向以「主動深層展現」方式投入教學，展現積極情緒並強化教學動機（Lee & Van Vlack, 2018）。儘管雙語教學增加備課與語言轉換等負擔（Gao & Cui, 2022），部分教師仍透過主動調適維持教學熱情，反映其對政策效益的支持。學生對雙語學習的抗拒也是情緒壓力來源之一，語言焦慮常削弱學生學習動機，進而影響教師的教學情緒（Horwitz, 2010）。面對學生挫折，教師常選擇以真情流露與同理心應對，此為「主動深層展現」的實踐策略（Brotheridge & Lee, 2003）。此外，學校內部對

雙語政策的不一致認知亦加重教師的人際情緒勞務。當同事缺乏理解甚至質疑雙語教學時，教師需壓抑不滿，透過「表層情緒偽裝」維持和諧（Morris & Feldman, 1996），或以「被動深層展現」轉化情緒，努力調適人際關係與組織文化的張力。

## （二）鉅觀角度：行政負擔與政策影響

鉅觀層面，行政指派的額外業務是影響教師情緒勞務的重要因素。教育政策的推行往往伴隨大量行政工作，而這些行政負擔可能增加教師的職業倦怠（Liu & Onwuegbuzie, 2012）。本研究發現，教師在面對行政業務時，主要採取「表層情緒偽裝」來表現順從但內心可能產生壓力與不滿。此外，部分教師則透過「被動深層展現」，以情緒轉化方式適應行政要求，這與Grandey（2000）所提出的工作環境與情緒調節關聯性相符。此外，雙語政策的整體負擔與外部輔導教師的建議亦影響教師的情緒表現，部分教師積極認同政策帶來的效益，並透過「主動深層展現」來維持正向教學態度。然而，在面對外部輔導教師的建議時，部分教師則選擇「表層情緒偽裝」，表面上接受指導，實則可能產生內在情緒衝突，這與先前研究指出的教師在政策適應過程中的情緒調節機制一（Richards, 2020）。

# 伍、研究結論與建議

## 一、結論

### （一）情緒勞務的情境脈絡來自於雙語教育政策、自身的教學信念、教學上的負擔跟與學生、同事跟行政的關係

在鉅觀層面，雙語教育政策與縣市教育局處的推動壓力，使雙語成為學校績效的重要指標。雙語教師需協助教案撰寫、觀課、議課與成果展示，甚至面對與自身教學理念不符的外部建議，形成情緒勞務來源。微觀層面則包括：缺乏教材導致備課困難、學生英語程度參差帶來負面反應，皆增加教師的情緒負擔。此外，學校同儕若對雙語政策缺乏理解或不支持，亦削弱教師的專業認同。儘管多數教師認為雙語教學有助學生學習，但在政策、教學與人際間的多重張力下，情緒勞務成為其日常挑戰的一部分。

### （二）雙語教師情緒展現包含表層情緒偽裝、被動深層展現與主動深層展現

面對入校輔導教授的建議，雙語教師多以「表層情緒偽裝」應對，儘管部分建議與教學理念相左，仍表面虛心接受，但實際課堂運用上會自行斟酌是否採納。備課方面，教師常於寒暑假、週末與下班後持續投入，雖感身心疲憊，仍因相信雙語教育對學生有助益，透過「主動深層展現」轉化情緒，堅持教學目標與政策要求。此外，教師在面對校內同事對雙語教學的誤解與質疑時，從初期的「忍氣

吞聲」與「委曲求全」的表層偽裝，逐漸轉化為「被動深層展現」，以內在信念調適負面情緒。這些情緒策略展現出教師在制度壓力與現場挑戰下的應對智慧，也凸顯其深層的專業認同與教學韌性。

## 二、建議

針對雙語教師情緒勞務的情境脈絡與情緒展現的形式此議題之「教育實務的建議」和「未來研究的建議」分別論述之，其「教育實務的建議」如下：

### (一) 面對雙語教學的龐大工作負擔，雙語教師應該強化教學專業能力

「2030 年雙語政策」讓國小 CLIL 雙語教學如火如荼的進行，然而研究參與者提及在準備課程中需要花費許多的時間配合雙語計畫撰寫雙語教學教案、準備教授入校的觀課與議課，為了減少此脈絡情境帶來的情緒勞務根本的辦法就是精進自己領域科目專門知識、學科語言知識和雙語學科教學知識，並多參加工作坊累積自己的雙語教學專業知能，此外，教師可發展個人化的情緒調節策略，並與夥伴教師建立專業支持網絡，分享教學困境與資源。。

### (二) 雙語政策的實施，應該給予雙語教師所需資源的協助和備課時間

「2030 雙語政策」雖然明訂了參與雙語教學計畫的老師可以減課，方便讓雙語老師有較多的備課時間，然而學校端因為雙語師資的不足，所以許多雙語老師都是以超鐘點的方式上滿了可以上的節數，這種惡性循環讓基層的雙語教師沒有足夠的時間進行雙語教學的備課，因此應該給予雙語教師所需資源的協助和備課時間。建議學校行政單位建立具體且定期的溝通機制，由教師與行政人員共同討論教學需求與行政調配，提升教學支持度與組織共識。此外，學校可依據教師需求提供「主題式在職培訓」，例如聚焦於雙語課堂語言轉換策略、情緒調節技巧與溝通回饋訓練，每學期安排 2-3 次工作坊形式課程，並邀請實務教師或輔導員進行實例分享，提高培訓成效與實用性。

### (三) 教育當局應該研發雙語教學的課本教材

國內雙語教材的缺乏是造成雙語教師教學負擔的情緒壓力來源，好的雙語課本能提供課室語言應用與策略、規劃情境脈絡、學習遷移的教學任務設計還需要包含學科領域領綱之學習指標等，這並不是單單雙語教師可以處理的。教育部可以將雙語政策經費部份用作雙語教材的研發，以減輕雙語教師在備課時所產生的情緒勞務。

本研究樣本集中於北部與東部國小，雖涵蓋不同類型學校，仍未涵蓋中南部地區及其他教育階段（如高中、大學），其制度環境與教學文化可能對情緒勞務有不同影響。此外，本研究以單次性質性訪談為主，樣本數有限，難以全面呈現國內雙語教師情緒勞務的全貌。未來研究可擴及不同地區與教育層級，探討制度背景如何影響教師的情緒調節策略，並建議納入同校行政人員與教師的觀點，以更完整刻劃雙語教師的情緒脈絡。另可採長期追蹤訪談方式，深入分析教師情緒勞務的歷時變化。最後，建議未來可發展量化工具，如建構「雙語教師情緒勞務量表」，探討不同教學模式（如 CLIL、沉浸式）與制度背景對情緒調節策略的影響，以驗證研究所歸納之質性結果。

## 參考文獻

- 王力億、林子斌(2021)。雙語教育推動的第一步:雙語學科教師培訓與增能的建議。載於財團法人黃昆輝教授教育基金會(主編), **臺灣的雙語教育:挑戰與對策** (375-394 頁)。臺北:財團法人黃昆輝教授教育基金會。
- 【Wang, L.-Y., & Lin, T.-P. (2021). *The first step in promoting bilingual education: Suggestions for training and empowering bilingual subject teachers*. In Huang Kun-Huei Educational Foundation (Ed.), *Bilingual education in Taiwan: Challenges and strategies* (pp. 375–394). Taipei: Huang Kun-Huei Educational Foundation.】
- 田耐青(2020)。論國小雙語師資應有之教學知能。**臺灣教育評論月刊**, 9(9), 51-56。
- 【Tian, N.-C. (2020). *On the pedagogical competencies required for bilingual teachers in elementary schools*. *Taiwan Educational Review Monthly*, 9(9), 51–56.】
- 江文慈(2009)。“和顏悅色”與“忍氣吞聲”的背後:國小教師情緒勞動的心理歷程分析。**教育心理學報**, 40(4), 553-575。https://doi.org/10.6251/BEP.20080710
- 【Chiang, Wen-Tzu. (2009). Behind Smiling and Suppressing: Psychological Processes in Emotional Labor of Elementary School Teachers. *Bulletin of Educational Psychology*, 40(4), 553–575. https://doi.org/10.6251/BEP.20080710】
- 吳芷筠(2015)。**我的面具與我的心—探究國中輔導教師之情緒規則**。〔未出版之碩士論文〕。國立中正大學。
- 【Wu, C.-Y. (2015). *My Mask and My Heart.* — Explore Junior High School Guidance Teachers' Emotional Rules. (Unpublished master's thesis). National Chung Cheng University.】
- 吳清山(1998)。**教育革新研究**。師大書苑。
- 【Wu, C.-S. (1998). *Research on educational innovation*. Shida Bookstore.】
- 李安明、黃芳銘、呂晶晶(2012)。國民小學教育人員情緒勞務量表之發展與編製。**測驗學刊**, 59(3), 451-486。https://doi.org/10.7108/PT.201209.0451
- 【Li, A.-M., Huang, F.-M., & Lu, C.-C. (2012). The Development of Emotional Labor Scales for Elementary School Teachers. *Journal of Educational Measurement*, 59(3), 451–486. https://doi.org/10.7108/PT.201209.0451】
- 李昀修(2022年5月4日)。台灣為什麼推「雙語教學」?從師資培育到政策白皮書都顯示,雙語只是全英語的過渡期。**關鍵評論**。  
https://www.thenewslens.com/article/165314

- 【Li, Y.-H. (2022, May 4). *Why is Taiwan promoting "bilingual education"? From teacher training to the policy white paper, all suggest that bilingualism is just a transitional phase toward full English instruction*. The News Lens.  
<https://www.thenewslens.com/article/165314>】
- 李新民、陳密桃（2006）。實用智能，緣分信念與心理健康，工作表現之相關：以幼兒教師為例。*中華心理學刊*，48（2），183-202。  
<https://doi.org/10.6129/CJP.2006.4802.05>
- 【Lee, H-M, & Chen, M-T. (2006). The Relationship among Practical Intelligence, Yuarn- Feng Beliefs, Mental Health and Job Performance for the Preschool Teachers. *Chinese Journal of Psychology*, 48(2), 183–202.  
<https://doi.org/10.6129/CJP.2006.4802.05>】
- 李藹慈（2013）。質性研究方法論。雙葉書廊。
- 【Li, A.-T. (2013). *Qualitative research methodology*. Shuang-Ye Bookstore.】
- 沈碩彬、黃文三（2017）。高中職教師情緒勞務與學校生活適應之關聯模式探析。*教育理論與實踐學刊*，36，47-73。  
[https://doi.org/10.7038/JETP.201712\\_\(36\).0003](https://doi.org/10.7038/JETP.201712_(36).0003)
- 【Shen, S-P, & Huang, W-S. (2017). The Associated Model of Teachers' Emotional Labor and School Life Adjustment in General and Vocational High Schools. *Journal of Educational Theory and Practice*, 36, 47–73.  
[https://doi.org/10.7038/JETP.201712\\_\(36\).0003](https://doi.org/10.7038/JETP.201712_(36).0003)】
- 林子斌（2020）。臺灣雙語教育的未來：本土模式之建構。*臺灣教育評論月刊*，9（10），8-13。
- 【Lin, T.-P. (2020). *The future of bilingual education in Taiwan: Constructing a localized model*. *Taiwan Educational Review Monthly*, 9(10), 8–13.】
- 林尚平（2000）。組織情緒勞務負擔量表之發展。*中山管理評論*，8（3），427-447。
- 【Lin, S.-P. (2000). *The development of the organizational emotional labor burden scale*. *Sun Yat-sen Management Review*, 8(3), 427–447.】
- 洪月女、陳敬容（2022）。全球在地化臺灣雙語教學知能與培育。載於鄒文莉、黃怡萍主編，臺灣雙語教學資源書--全球在地化課程設計與教學實踐（頁 15-31 頁）。臺北：書林出版社。
- 【Hung, Y.-N., & Chen, C.-J. (2022). *Glocalization and the cultivation of bilingual teaching competencies in Taiwan*. In W.-L. Chou & Y.-P. Huang (Eds.), *Bilingual teaching resource book in Taiwan: Glocalized curriculum design and teaching practices* (pp. 15–31). Taipei: Bookman Books.】

胡惟喻、陳依婷、邱華凱、鄒家瑜（2017）。幼兒園教師情緒勞務，角色壓力及工作滿意度之研究。**中華科技大學學報**，(69)，57-79。

【Hu, W.-Y., Chen, Y.-T., Chiu, H.-K., & Tsou, C.-Y. (2017). *A study on emotional labor, role stress, and job satisfaction among kindergarten teachers. Journal of China University of Science and Technology*, (69), 57-79.】

孫俊傑、龔心怡（2010）。國民中學兼任行政職務教師情緒勞務，教師自我效能與學校效能關係之研究。**彰化師大教育學報**，(18)，29-62。

<https://doi.org/10.6769/JENCUE.201012.0031>

【Sun, C-C, & Kung, H-Y. (2010). A Study of the Relationships among Emotional Labor, Teacher Self-efficacy and School Effectiveness for the Teachers with Administrative Position in Junior High Schools. *Journal of Education, National Changhua University of Education*, (18), 29-62.】

張乃文（2009）。教師情緒素養建立之研究：情緒勞務負荷的觀點。**臺中教育大學學報：教育類**，23（1），75-98。<https://doi.org/10.7037/JNTUE.200906.0075>

【Chang, N-W. (2009). The Construction of Teacher's Emotional Literacy: From Emotional Labor Perspective. *Journal of National Taichung University: Education*, 23(1), 75-98. <https://doi.org/10.7037/JNTUE.200906.0075>】

張承安（2022）。國民小學教師實施雙語教學模式研究-以桃園市一所國小為例〔未出版之碩士論文〕。國立台灣師範大學台灣。

<http://doi.org/10.6345/NTNU202200713>

【Chang, Cheng-An. (2022). A Study on the Implementation of the Bilingual Teaching Model by Elementary School Teachers: Taking an Elementary School in Taoyuan City as an Example. (Unpublished master's thesis). National Taiwan Normal University, Taiwan. <http://doi.org/10.6345/NTNU202200713>】

張純子、洪志成（2008）。幼兒教師之情緒勞動-勞心勞力的脈絡情境分析。**教育研究學報**，42（2），45-66。<https://doi.org/10.7029/JES.200810.0045>

【Chang, C.-T., & Hung, C.-C. (2008). *Emotional labor of preschool teachers: A contextual analysis of mental and physical effort. Journal of Educational Research*, 42(2), 45-66. <https://doi.org/10.7029/JES.200810.0045>】

張淇涵（2024）。國民小學雙語教師情緒勞務之研究。國立中正大學教育學研究所碩士論文。

【Chang, C.-H. (2024). *A study on the emotional labor of bilingual elementary school teachers* (Master's thesis). Graduate Institute of Education, National Chung Cheng University.】

教育基本法 (2013 年 12 月 11 日)修正公布。

<https://law.moj.gov.tw/LawClass/LawAll.aspx?pcode=H0020045>

【Fundamental Law of Education. (2013, December 11). Amended and promulgated.

<https://law.moj.gov.tw/LawClass/LawAll.aspx?pcode=H0020045>】

教育部 (2018)。全面啟動教育體系的雙語活化、培養臺灣走向世界的雙語人才。

<https://ssur.cc/5u8V8>

【Ministry of Education. (2018). *Comprehensively activating bilingualism in the education system: Cultivating bilingual talents to lead Taiwan into the world.*

<https://ssur.cc/5u8V8>】

教育部 (2021)。「大專校院學生雙語化學習計畫」。<https://best.twaea.org.tw/>

【Ministry of Education. (2021). *Bilingual education program for college students.*

<https://best.twaea.org.tw/>】

陳奕安、許家齊 (2021 年 5 月 7 日)。雙語教育師資缺乏不足？衝刺雙語教育背後的省思。**翻轉教育**。<https://flipedu.parenting.com.tw/article/006553>

【Chen, Y.-A., & Hsu, C.-C. (2021, May 7). *Lack of bilingual education teachers?*

*Reflections on the push behind Taiwan's bilingual education policy.* Flip

Education. <https://flipedu.parenting.com.tw/article/006553>】

葉若蘭、翁福元 (2021)。雙語教育推動的挑戰與配套措施建議。**臺灣教育評論月刊**，10 (12)，19-26。

【Yeh, J.-L., & Weng, F.-Y. (2021). *Challenges and proposed supporting measures for promoting bilingual education.* *Taiwan Educational Review Monthly*, 10(12), 19–

26.】

廖偉民 (2020)。2020 年臺灣公立國小推展雙語教育之探討。**臺灣教育評論月刊**，9 (9)，90-96。

【Liao, W.-M. (2020). *A study on the promotion of bilingual education in Taiwan's public elementary schools in 2020.* *Taiwan Educational Review Monthly*, 9(9), 90–96.】

賓玉華 (2019)。公辦公營實驗學校教師情緒勞務與教學效能關係之研究〔未出版之碩士論文〕。國立台中教育大學。

【Pin, Y.-H. (2019). *A study on the relationship between emotional labor and teaching effectiveness among teachers in public experimental schools* (Unpublished master's thesis). National Taichung University of Education.】

劉十賢 (2021 年 8 月 1 日)。當教育成為階級戰：台灣迎向雙語國家，師資不足背後的「難言」之隱。**關鍵評論**。取自 <https://www.thenewslens.com/article/154008>

- 【Liu, S.-H. (2021, August 1). *When education becomes a class struggle: Taiwan's push for a bilingual nation and the unspoken issues behind the teacher shortage*. The News Lens. <https://www.thenewslens.com/article/154008>】
- 劉述懿、吳國誠 (2021)。臺北市雙語教學概念與實踐。師友雙月刊，626，43-49。
- 【Liu, S.-Y., & Wu, K.-C. (2021). *The concept and practice of bilingual instruction in Taipei City. Teacher and Friends Bimonthly*, (626), 43-49.】
- 盧柏安 (2021)。新臺北市推動雙語教育政策可行性分析之研究〔未出版之博士論文〕。國立台中教育大學。http://doi.org/10.6345/NTNU202101815
- 【Lu, P.-A. (2021). *The Study on the policy feasibility Analysis of New Taipei City Bilingual Education*. (Unpublished doctoral dissertation). National Taichung University of Education. <http://doi.org/10.6345/NTNU202101815>】
- 譚亦聰 (2021)。臺北市推動雙語實驗課程之歷程反思與展望。教育研究與實踐學刊，68 (1)，35-45。https://doi.org/10.6701/JEPR.202106\_68(1).0005
- 【Chen, Y.-T. (2021). *Reflection and Prospects on the Process of Promoting Bilingual Courses in Taipei City. Journal of Educational Research and Practice*, 68(1), 35-45. [https://doi.org/10.6701/JEPR.202106\\_68\(1\).0005](https://doi.org/10.6701/JEPR.202106_68(1).0005)】
- 羅文杏 (2021)。在臺灣國小實施雙語教學所面臨的挑戰及教師專業發展之可行建議。教育研究月刊，321，78-97。
- 【Lo, W.-H. (2021). *Challenges in implementing bilingual education in Taiwanese elementary schools and feasible suggestions for teacher professional development. Journal of Education Research Monthly*, 321, 78-97.】
- Adelmann, P. K. (1989). *Emotional labor and employee well-being* [Unpublished doctoral dissertation]. University of Michigan, Ann Arbor.
- Ashforth, B. E., & Humphrey, R. H. (1993). Emotional labor in service roles: The influence of identity. *Academy of management review*, 18(1), 88-115. <https://doi.org/10.2307/258824>
- Brotheridge, C. M., & Lee, R. T. (2003). Development and validation of the Emotional Labour Scale. *Journal of Occupational and Organizational Psychology*, 76(3), 365-379. <https://doi.org/10.1348/096317903769647229>
- Campbell, M., & Gregor, F. (2002). *Mapping social relations: A primer in doing institutional ethnography*. University of Toronto Press.
- Çekrezi, R. (2011). CLIL and teacher training. *Procedia-Social and Behavioral Sciences*, 15, 3821-3825. <https://doi.org/10.1016/j.sbspro.2011.04.379>
- Creswell, J. (2002). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Merrill/Prentice Hall.

- Dalton-Puffer, C. (2007). *Discourse in content and language integrated learning (CLIL) classrooms* (Vol. 20). John Benjamins Publishing.
- Gao, X., & Cui, Y. (2022). Bilingual education in policy and practice: Teacher challenges and responses. *International Journal of Bilingual Education and Bilingualism*, 25(2), 112-130.
- Grandey, A. A. (2000). Emotional regulation in the workplace: A new way to conceptualize emotional labor. *Journal of occupational health psychology*, 5(1), 95-110. <https://doi.org/10.1037/1076-8998.5.1.95>
- Hargreaves, A. (1998). The emotional practice of teaching. *Teaching and teacher education*, 14(8), 835-854. [https://doi.org/10.1016/S0742-051X\(98\)00025-0](https://doi.org/10.1016/S0742-051X(98)00025-0)
- Hobfoll, S. E., & Freedy, J. (1993). Conservation of resources: A general stress theory applied to burnout. In W. B. Schaufeli, C. Maslach, & T. Marek (Eds.), *Professional burnout: Recent developments in theory and research* (pp. 115-133). Taylor & Francis.
- Hochschild, A. R. (1983). *The managed heart: Commercialization of human feeling*. University of California Press.
- Horwitz, E. K. (2010). Foreign and second language anxiety. *Language Teaching*, 43(2), 154-167. <https://doi.org/10.1017/S026144480999036X>
- Isenbarger, L., & Zembylas, M. (2006). The emotional labour of caring in teaching. *Teaching and Teacher Education*, 22(1), 120-134. <https://doi.org/10.1016/j.tate.2005.07.002>
- Kelchtermans, G. (2005). Teachers' emotions in educational reforms: Self-understanding, vulnerable commitment and micropolitical literacy. *Teaching and Teacher Education*, 21(8), 995-1006. <https://doi.org/10.1016/j.tate.2005.06.009>
- Kemper, T. D. (1993). Sociological models in the explanation of emotions. In M. Lewis & J. M. Haviland (Eds.), *Handbook of emotions* (pp. 41-51). Guilford.
- Lee, M., & Van Vlack, S. (2017). Teachers' emotional labour, discrete emotions, and classroom management self-efficacy. *Educational Psychology*, 38(5), 669-686. <https://doi.org/10.1080/01443410.2017.1399199>
- Liu, S., & Onwuegbuzie, A. J. (2012). Chinese teachers' work stress and their turnover intention. *International journal of educational research*, 53, 160-170. <https://doi.org/10.1016/j.ijer.2012.03.006>

- Morris, J. A., & Feldman, D. C. (1996). The dimensions, antecedents, and consequences of emotional labor. *Academy of Management Review*, 21(4), 986-1010.  
<https://doi.org/10.2307/259161>
- Nazari, M., & Karimpour, S. (2023). “Teacher, Man Mitoonam...?”: Translanguaging and English language teacher emotion labor. *Journal of Language, Identity & Education*, 24(3), 645–659. <https://doi.org/10.1080/15348458.2023.2167206>
- Richards, J. C. (2022). Exploring emotions in language teaching. *RELC Journal*, 53(1), 225-239. <https://doi.org/10.1177/0033688220927531>
- Saarni, C. (2000). Emotional Competence. A Developmental Perspective. En R. Bar-Ony J. D. A. Parker (Eds.), *The Handbook of Emotional Intelligence. Theory, Development, Assessment, and Application at Home, School, and in the Workplace* (pp. 68-91). San Francisco, Ca: Jossey-Bass.  
[https://doi.org/10.1016/S0160-2896\(01\)00084-8](https://doi.org/10.1016/S0160-2896(01)00084-8)
- Stake, R. E. (2020). *The Art of Case Study Research* (2nd ed.). SAGE Publications.
- Sulaiman, N. (2022). *Exploring English-language teacher emotions, teaching instructions and professional identity in the context of ELT curriculum reform in Malaysia* (Doctoral dissertation, Macquarie University).
- Tschannen-Moran, M. (2017). Trust in education. *Oxford Research Encyclopedia of Education*. Retrieved 30 December 2021, from:  
<https://doi.org/10.1093/acrefore/9780190264093.013.79>
- Valdés-Sánchez, L., & Espinet, M. (2020). Coteaching in a science-CLIL classroom: changes in discursive interaction as evidence of an English teacher’s science-CLIL professional identity development. *International Journal of Science Education*, 42(14), 2426-2452. <https://doi.org/10.1080/09500693.2019.1710873>

## 附錄一 2030 年雙語教師情緒勞務訪談大綱

A. 受訪者基本資料	1. 請問你的教育背景？ 2. 請問你的教學年資多久了？分別是擔任什麼職務？有擔任過英文老師嗎？還是擔任過級任老師或是兼任行政組長？各是多少年呢？ 3. 在目前學校擔任的職位？跟任教的年段？以及一周的任教節數？ 4. 在目前任教學校的描述？例如班級數、雙語老師的數量、學生的普遍英語程度與學習態度、同事之間的氛圍、學校的氛圍、老師與學校行政之間的關係。
B. 雙語教師自身教學信念	1-1 對於雙語政策您自身的看法為何？ 1-2 是否跟學校想推行雙語教育的方向一致？ 1-3 如果不一致，您如何因應？ 1-4 您的感受為何？您是如何處理自己的情緒？
C. 雙語教學與學生的互動	1-1 請問在雙語教學方面的工作內容為何？例如備課時間；教學上遇到的問題；批改作業的時間；出月考考卷遇到的困難？ 1-2 承上，你覺得雙語教學上，你跟學生的互動為何？學生對雙語課程的反應為何？ 1-3 在實際雙語教學經驗中，有沒有遇到讓你開心、生氣或難過的事件？事情的發生經過為何？您是如何應對呢？ 1-4 當時您的感受為何？您是如何處理自己的情緒？
D. 雙語教師與家長的互動	1-1 請問在雙語教學實施時，家長的反應為何？ 1-2 請述說與家長的關係或者定位？ 1-3 是否有遇過家長詢問雙語教學的事情？如果有，是什麼事情？您是如何應對呢？ 1-4 當時您的感受為何？您是如何處理自己的情緒？
E. 雙語教師與協同老師的互動	1-1 請述說與雙語協同老師的關係或者定位？ 1-2 與協同教師一起工作時(課前備課或是課堂上課)，有遭遇什麼來自協同教師的情緒或是衝突嗎？事情發生的經過為何？ 1-3 你如何處理？當時您的感受為何？您是如何處理自己的情緒？

<b>F. 雙語教師與行政教師、主管的關係</b>	<p>1-1 請述說與行政主管的關係或者定位？</p> <p>1-2 學校近年來有參與雙語教學計畫嗎？如果有，你需要提供什麼協助行政申請雙語計畫嗎？你需要幫助行政執行雙語計畫嗎？你需要協助雙語計畫成果嗎？如果有，分別是什麼？</p> <p>1-3 與行政人員因為雙語政策的事務，跟他們發生不愉快的事件或是衝突嗎？事情發生的經過為何？</p> <p>1-4 你如何處理？當時您的感受為何？您是如何處理自己的情緒？</p>
<b>G. 雙語教師與入校輔導的雙語團隊的關係</b>	<p>1-1 學校有申請專業雙語團隊入校輔導嗎？如果有，你需要做哪些工作的？例如公開觀課、寫教案……</p> <p>1-2 在備課或是公開觀課的過程中，跟他們有發生不愉快的事件或是衝突嗎？事情發生的經過為何？</p> <p>1-3 你如何處理？當時您的感受為何？您是如何處理自己的情緒？</p>

# 臺灣高中生在全國英語寫作比賽中的論述能力與寫作表現：引言部分之分析

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## 摘要

本研究探討全國高中英文寫作比賽（NHSEWC）獲獎作品的引言如何有助於達成課程目標並促進臺灣高中生的全球化視野。透過話語分析，本研究分析了 40 篇獲獎引言，關注其在研究領域的建立、態度表達及研究缺口的呈現方式。此外，兩位大學教師審查了這些引言，以確保品質的一致性。研究結果顯示，獲獎引言在建立研究領域（如引用文獻）、表達態度（顯性與隱性方式）以及確立研究缺口（如探討具爭議性的議題或強調研究重要性）方面展現出多樣策略。然而，部分引言存在冗贅問題，或未能達到「特優獎」的標準。本研究指出，由於相關文獻有限，撰寫 NHSEWC 引言仍面臨挑戰，並據此提出教學上的改進建議。

關鍵詞：引言、全國高中職小論文競賽、書面論述分析、高中生、說服性寫作的評鑑

# Taiwanese Students' Discourse Skills and Writing Performance in National High School Essay Writing Competition: An Analysis of Introductions

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## Abstract

This study examines how award-winning introductions from the National High School Essay Writing Competition (NHSEWC) contribute to achieving course objectives and promoting globalization in Taiwanese high schools. Using discourse analysis, 40 award-winning introductions were analyzed for their use of research territory, attitude, and research gaps. Additionally, two university teachers reviewed the introductions to ensure quality consistency. The findings reveal diverse strategies in establishing research territory (e.g., citations), expressing attitude (explicit and implicit approaches), and identifying research gaps (controversial topics or significance emphasis). However, some introductions exhibited redundancy or failed to meet the 'extraordinary award' standard. This study highlights challenges in crafting NHSEWC introductions due to limited literature and suggests pedagogical improvements.

**Keywords:** Introduction, National High School Essay Writing Competition, evaluations in persuasive texts, high school students, written discourse analysis

## Background

In response to globalization and internationalization, the Taiwanese government initiated the 12-year basic education, which aims to cultivate students into lifelong learners through literacy-oriented courses (Hsu, 2022). As part of this initiative, the curriculum guidelines emphasize three aspects and nine components. However, schools, especially at the high school level, have faced major challenges in implementing the 108 curriculum. In addition to the mandatory courses, such as ministry-mandated required courses and school-developed required courses, the curriculum also includes cross-curricular project-based courses and practicum and experimental courses. These courses are designed to deepen students' proficiency and bridge gaps for higher education (Ministry of Education, 2014). To meet these objectives, many high school teachers design courses to prepare students for the National High School Essay Writing Competition (NHSEWC), which is held twice annually by the Department of Elementary and Preschool Education, Ministry of Education (Yeh, 2010). Despite its importance, high school teachers and students face challenges in participating in the NHSEWC, particularly as students are learning to conduct small-scale research for the first time (Chen & Hsu, 2021; Li, 2021; The Editorial Team of Rethinking General Education, 2019; Zheng & Chang, 2021). Beyond mastering formal research methods, students find it difficult to follow the guidelines and write in a foreign language, which has led to issues such as plagiarism (Liu, 2022). Furthermore, there is concern about whether students truly learn from the process, especially given the availability of companies that offer to complete the projects for them (Zhou, 2009). Although the NHSEWC has been held for many years, there is a lack of scholarly literature analyzing the awarded works (Huang, 2023; Hsu, 2022; Yeh, 2010). This gap highlights the need for further exploration of the competition's evaluation process and its broader impact.

To address this gap, the present study aims to examine high school students' English essays that received extraordinary awards and are publicly available online. While the CARS model posits that a researcher establishes a research space by emphasizing the centrality of the topic and identifying gaps in prior research (Xu & Nesi, 2017), much linguistic and anthropological research (Hyland, 1996; Martin & White, 2005) has emphasized the importance of evaluative resources in academic writing. This is because academic writing is not only "monologic" (presenting a single interpretation) but also "interactive," offering opportunities for alternative interpretations. Through this analysis, the study seeks to uncover linguistic and structural patterns that will provide valuable insights into the quality of competition submissions. To ensure consistency and strengthen the evidence regarding the quality of the research articles, the study focuses on those that received extraordinary awards, specifically analyzing the introduction section. As noted by Kadiravan and Thabab (2017), the introduction is key for establishing the research territory, presenting attitudes, and developing the research gap. This leads to the following research questions:

- Q1: How are territory, attitude, and gap conveyed in introductions of NHSEWC?
- Q2: How are territory, attitude, and gap structurally developed in NHSEWC introductions?

Q3: How do NHSEWC introductions perform in evaluations through discourse analysis and university teachers' reviews?

## **Literature Review**

This section comprises two parts. Firstly, it reviews various frameworks to for contexts analysis, including those proposed by Hunston (2000), Thetela (1997), Hood (2004), and Xu and Nesi (2017). Secondly, it examines existing and recent studies regarding the evaluation of research articles.

### **An overview of the evaluative models on argumentative styles in research articles**

To begin with, Sinclair (1981) initially introduced two planes, interactive and autonomous, which were later developed by Hunston (2000). Unlike Sinclair's proposition that all sentences serve functions on both planes, Hunston provided a more nuanced distinction. She explained that on the interactive plane, evaluation occurs within the discourse itself, focusing on a discourse act, whereas on the autonomous plane, evaluation pertains to something external to the discourse. Moreover, additional perspectives such as attribution and averral, along with various types of statements including fact, interpretation, assessment, assumption, and recommendation, contributed to the identification of the two planes. Hunston suggested that writers' responsibilities weakened when an ideal was attributed. This consideration encompassed the status of the statement, the alignment of the "world," the writer's value of truth, and the perceived truthfulness of the statement at the given moment. Although Hunston asserted that her model could capture interaction, Xu and Nesi (2017) noted a decrease in the level of clarity in identifying the two planes.

Instead of paralleling two planes to function for analysis, Thetela (1997) simplified the differentiation between research and real-world contexts by focusing on positive and negative attitudes in evaluations and evaluated entities. In Thetela's framework, evaluations related to research discourse are termed "research-oriented evaluations (ROE)," while those concerning real-world phenomena being investigated are termed "topic-oriented evaluations (TOE)." The essential distinction between ROE and TOE lies in their mutual exclusivity, with ROE addressing the researcher performing the evaluations, whereas TOE, as reported by the researcher, is "neither good nor bad in themselves" (Thetela, 1997, p. 105). However, Xu and Nesi (2017) argued that Thetela's framework overlooked the concept of gap evaluations, suggesting a problem of overlapping between the two evaluation types.

Hood (2004) expanded linguistic boundaries by introducing specific lexical items and two terms: "Field of Domain (FD)," mirroring Thetela's TOE, and "Field of Research (FR)," with slight differences from ROE. For instance, words like "produced," "discovered," and "results" were associated with FR, while words like "students," "performance," and "better" were linked with FD (Xu & Nesi, 2017). In Hood's framework, FD and FR are connected by various congruent and non-congruent manifestations, where "sayers" or "sensors" convey "locutions" or "ideas" (Halliday,

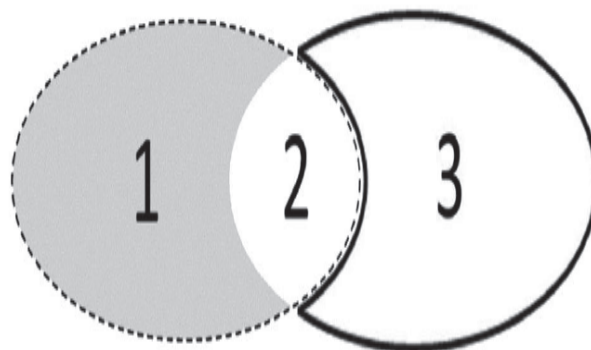
1994). For example, terms like “suggest,” “discover,” and “show” were linked with FR, while the expressions or concepts conveyed by sayers or sensors were associated with FD (Xu & Nesi, 2017). However, due to contextual variability in lexical meanings, Hood argued that certain entities could straddle both types, such as “conclusion” or “similarities,” challenging the notion that both types are mutually exclusive (Xu & Nesi, 2017).

Xu and Nesi (2017) found overlapping resources within the frameworks of Hunston (2000), Thetela (1997), and Hood (2004), suggesting the potential for a new framework, as illustrated in Figure 1. They delineated two contexts—research world and real-world contexts—under “how to investigate” and “what to investigate”. These contexts involve evaluations aligned with the writer's argument and extend to evaluations outside research boundaries, serving as negotiation tools within the research community. Xu and Nesi (2017) categorized these three contexts using consecutive numbers, representing the research world influenced by argumentative intention (Context 1), the real world influenced by argumentative intention (Context 2), and the real world not influenced by argumentative intention (Context 3). Xu and Nesi (2019) identified three distinct moves within academic article introductions, contributing to enhancements of their proposed framework.

Xu and Nesi's (2017) proposition of establishing mutually exclusive categories appear to provide advantages in evaluating research contexts. However, the terminology might not be widely recognized among researchers and could be seen as ambiguous. Moreover, Hunston's (2000) concept of interactions between two planes has offered valuable insights into capturing the dynamic nature of categories. Acknowledging the interconnectedness between sentences is crucial. Therefore, in the present study, we applied a framework for evaluating research articles that combines continuous circles with partially overlapped areas, inspired by both Xu and Nesi's (2017, 2019) and Hunston's (2000) frameworks. Instead of numbering the contexts, the present study labeled three contexts as territory, attitude, and gap. Further elaboration on these terms is provided in the data annotation section.

**Figure 1**

*The actual nature of contexts by Xu and Nesi (2017)*



## Relevant studies on the evaluation of research article introductions

Up to now, a few studies have examined research articles introductions by applying different frameworks. Xu and Nesi (2019) explored differences in evaluative styles in research article introductions written by Chinese and British scholars. Analyzing 30 introductions in applied linguistics using Appraisal Theory and genre analysis with the UAM Corpus Tool, they found both groups valued advocating for their perspectives and engaging readers. However, Chinese writers were more categorical in asserting their opinions, often supported by references to previous studies. In contrast, British writers acknowledged diverse viewpoints and explicitly expressed their attitudes toward the research topic, prior studies, and their own work. These insights can aid in developing programs for novice researchers in international publishing and raise awareness among journal reviewers and editors about cultural variations in stance-taking. Despite unresolved issues of overlapping categories, the findings align with Xu and Nesi's (2017) concept of three categories, providing valuable insights for the present study. Alanazi and Alqarni (2022) analyzed the first sentences of 502 research article introductions in linguistics and translation, comparing national low-impact and international high-impact journals. Using the CARS model, they found that high-impact journal authors favored Move 2 or 3 types, which establish or occupy a niche. In contrast, low-impact journal authors often used shorter, more metaphorical Move 1 sentences with more typos and grammatical errors, disrupting the flow and making comprehension difficult. The study highlighted that brief and unclear excerpts were less convincing, underscoring the need for more empirical evidence. Deng et al. (2024) examined how academics from four disciplines, including applied linguistics, education, electrical engineering, and biology, engaged with their discourse communities in research article (RA) introductions. Analyzing 200 RA introductions, they identified function-form mappings between rhetorical move-steps and linguistic realization, as well as disciplinary uniformity and variation in engagement values. Despite differences between natural and social sciences, there was variation within each category. The findings have implications for EAP practitioners aiming to enhance novice writers' understanding of discipline- and genre-specific evaluative resources in academic writing. However, the study focused only on the engagement system, lacking additional categories to fully elucidate the complexity of research contexts.

In brief, existing literature has not thoroughly explored or generalized the possible patterns in research article introductions. The inconsistent frameworks proposed by different scholars suggest that there may be no absolute patterns, warranting further investigation. Furthermore, the lack of sufficient empirical evidence has resulted in inconclusive findings, highlighting the need for further research into the organization and structure of these introductions. More importantly, despite the common practice of high school students writing essays in Taiwan, there is limited literature examining their quality. Studying English essays written by Taiwanese high school students can provide insights into phenomena shaped by the policy, providing insights and suggestions for the unique cultural activity of the NHSEWC in Taiwan.

## Method

### Data source

This study adopts a qualitative approach through written discourse analysis. As Gill (2000) observed, the growing interest in discourse analysis is rooted in the “linguistic turn,” which views language as a form of social practice rather than merely an epiphenomenon. From this perspective, discourse analysis is particularly effective in examining how knowledge is linked to actions and practices (Burr, 1995). By analyzing the language used in student writing, this study aims to explore how students construct and communicate academic ideas. To collect data, the study will analyze the introductions of 40 award-winning research articles published on the National High School Essay Writing Competition website between 2020 and 2023. This timeframe was selected to evaluate the long-term effects of the 108 Curriculum on student writing. Table 1 provides the distribution of the selected articles across the competition years.

**Table 1**  
*Numbers of articles in each contest*

Contest	Number
1121015	10
1120315	4
1111015	4
1110315	2
1101015	7
1100315	13
<b>Total</b>	<b>40</b>

**Source(s):** Table summarized from the NHSEWC website

### Data annotation

Informed by Xu and Nesi (2017), the new framework is proposed to be mutually exclusive across three distinct contexts. However, assigning numbers to these contexts and assessing the effects of realism and argumentation may lead to ambiguity when objectively annotating the data. To address these issues, I have chosen to adopt terminologies widely recognized within the field by integrating ideas and frameworks from Hunston (2000) and Xu and Nesi (2017, 2019). Consequently, in the present study, context one is referred to as “territory,” which focuses on the establishment of research territory (Xu & Nesi, 2019). In this context, “territory” refers to a range of strategies, including defining terms, presenting background information, or outlining the scope of the discussion, all of which aim to assert authority or control over the discourse space

(Swale, 1990). Context two is referred to as “attitude,” encompassing both positive and negative evaluations (Xu & Nesi, 2019). Here, “attitude” refers to the writers’ subjective stances or viewpoints regarding a specific topic, including feelings, beliefs, opinions, or evaluations. Attitudes can be positive, neutral, or negative; as a result, defining “attitude” in a mutually exclusive manner can be challenging. Finally, context three is termed “gap”, focusing on gap development (Xu & Nesi, 2019). In this context, “gap” involves identifying missing information, unanswered questions, contradictions, or areas requiring further exploration or clarification. It also addresses specific areas of the research that need to be investigated, highlighting gaps that require bridging. With this framework, each function can be clearly identified, and the flow of the introduction writing can be captured (Kadhiravan & Thabab, 2017). Discourse functions and examples for annotation are presented in Table 2.

**Table 2**  
*Functions and examples for annotation*

Functions	Examples
<b>Territory</b>	According to a report released by the National Immigration Agency, R.O.C. (2023), the total number of new immigrants in Taiwan has reached 581,274, accounting for approximately 2.4% of the entire population.
<b>Attitude</b>	It made us so confused that we decided to research this issue.
<b>Gap</b>	Previous studies have overlooked the role of low income families in influencing childhood obesity, which our research seeks to address.

**Source(s):** Table by the author

## Data analysis procedure

Two distinct data analysis procedures were employed. For discourse analysis, 40 research article introductions were examined using the framework outlined in the data annotation section. Sentences were categorized into “territory,” “attitude,” and “gap,” with additional counts made for sentences that fell into multiple categories, such as “territory + attitude” and “attitude + gap.” Lexical selections within each sentence were also analyzed to support category assignments, which helped in identifying patterns within the introductions.

All research articles submitted to the NHSEWC undergo an initial review by two high school teachers or administrative staff members. However, concerns about validity arise, as the reviewers may lack the specialized expertise needed to assess research articles effectively. To address this, educators from higher education institutions were involved in reassessing the quality of the submissions. This step is particularly crucial, given that high school students often upload their e-profiles for evaluation by university professors. For this study, two female university English teachers from central Taiwan were invited to conduct the second review. One teacher, with 10 years of experience, is based at a public university, while the other, with 12 years of experience, teaches at a private university. Table 3 presents the demographic details of these two teachers. The teachers used a three-point rating scale—underperforming, acceptable, and well-

performing—to evaluate the quality of the research articles. In cases of discrepancies between their evaluations, an online meeting was organized by the researcher to discuss the differences and reach a consensus.

**Table 3**  
*Demographic information of the teachers*

Name (Pseudonym)	Gender	School type	School area	Years of teaching
Tina	Female	Public	Central	10
Tracy	Female	Private	Central	12

**Source(s):** Table by the author

## Trustworthiness

Lincoln and Guba (1985) contended that credibility (validity) is intricately linked to dependability (reliability), and enhancing the former can improve the latter. To ensure credibility, three measures were implemented. First, an expert in discourse analysis reviewed the annotation framework. Second, to ensure inter-rater reliability, the analysis procedures and interpretations were assessed and discussed with another English teacher holding a master's degree in linguistics. The analysis resulted in an 87% agreement rate. Third, the results based on the three rating scales from the two university teachers showed an 85% agreement rate, confirming the reliability of the reviewing process.

## Findings

In this study, a total of 349 sentences were analyzed in total. The subsequent sections presented findings for each category, including overlapping parts illustrated in the framework, and observed patterns in NHSEWC introductions. Finally, the results from reviews conducted by two university teachers were displayed to demonstrate the consistency in the quality deserving of awards.

## Territory in NHSEWC introductions

Among the 40 NHSEWC introductions, 238 sentences were categorized as "territory." Upon analysis, it became clear that territory in these introductions was expressed through a variety of lexical choices. To illustrate the diverse usage of these lexical items, they were further classified into two techniques commonly employed by high school students. The predominant technique for conveying territory was the use of in-text citations, as demonstrated in Example 1, excerpted from research articles 2, 8, and 21. Both parenthetical and narrative in-text citations were identified, resulting in a wide range of lexical selections. For instance, the terms "based on" and "pointed out" appeared twice in research article 2, indicating that the background information was sourced from both scholars and Wikipedia. Similarly, in research article 8, the phrase

“is an ... version of” was used to define “adaptive skateboarding,” with scholars credited as the source of this definition. This approach was also evident in research article 21, where Alzheimer's disease was defined with references to scholarly sources. Through both types of citations, research territory was established by presenting background information and definitions (Huffman et al., 2023).

#### Example 1

##### Research Article 2:

*Based on 徐世達 (2014), the director of the Department of Immunization of MacKay Memorial Hospital pointed out that ...have inherited allergies. Even if ...is irreversible....維基百科 (2022) pointed out that allergic rhinitis is a rejection ...human self-protection.*

##### Research Article 8:

*Adaptive skateboarding is an inclusive version of skateboarding, with ...allow them to enjoy skateboarding (Florence, 2022). For example, Felipe Nunes, a double leg amputee from Brazi, ....that people usually do with their feet (Nunes, n. d.).*

##### Research Article 21:

*Alzheimer's disease (AD), the leading cause of dementia, is a “polygenetic neurodegenerative brain disorder” (Jahn, 2013, p. 445) with or without cerebrovascular pathologies (Rez et al., 2016). Characterized by memory loss (Jahn, 2013), AD patients are also unable to “retain longstanding personalities and interests.” (Atri, 2019, p.266)*

Some students preferred providing statistical numbers, persuading readers to perceive the information as factual. As illustrated in Example 2, both research article 1 and 22 employed the phrase “according to” to reference sources. Similarly, in research article 2, the author utilized “based on” with a similar function. Additionally, citations were observed as combinations of different techniques. For instance, in research article 35, the WTTC was directly referenced to convey information about the relationship between tourism and world gross.

#### Example 2

##### Research Article 1:

*According to a report released by the National Immigration Agency, R. O. C. (2003), the total number of ...581,274, accounting for approximately 2.4%...population.*

##### Research Article 22:

*According to the Central Intelligence Agency, the percentage of Christmas in Taiwan is 3.9%, and due to the reason that ...religious may be one of the factors ...celebrated in Taiwan.*

## Research Article 35:

*For instance, the World Travel and Tourism Council (WTTC) estimates that more than **230 million** jobs worldwide were ...and it contributed **10% of the world's gross domestic product**, also known as GDP.*

In brief, NHSEWC introductions conveyed territory through lexical choices like in-text citations and statistical references. Students used citations to establish context, incorporating scholarly sources for background and definitions. Phrases like “according to” and “based on” emphasized credibility and authority, ensuring a structured research presentation.

### Attitude in NHSEWC introductions

In NHSEWC introductions, 24 sentences were assigned as expressing attitude. Regarding methods of conveying attitude, both explicit and implicit approaches were identified, covering a wide range of lexical selections. For explicit attitude, students favored using personal pronouns as sentence subjects to clearly indicate the sources. For instance, in Example 3, both research article 10 and 11 followed this sentence pattern. In research article 10, the consistent use of “we” and “want to” indicated their positive interests in the issue. Similarly, in research article 11, the phrases “I”, “enjoy”, and “has promoted” highlighted the positive effects of the issue on research interests.

## Example 3

## Research Article 10:

*As teenagers, **we** really **want to** know how teenagers of Taiwan ...and why people get divorced. In addition, **we** also **want to** know if different genders have different opinion about the above issues.*

## Research Article 11:

***I enjoy** Tang poetry fir its minimalist style and wonder why MT of poetry is often unreliable. I found that proper phrasing promotes my understanding...to an unchunked one. This speculation **has promoted** me to conduct research on the use of chunking in MT.*

Various sentence structures were observed for implicit attitude, with evaluations often based on judgments of adjectives. Example 4 illustrated the diverse use of adjectives to convey attitude. For instance, in research article 16, the sentence expressing attitude utilized adjectives like “subjective”, “inconsistent”, and “incoherent” to reflect the students’ skepticism towards the system and their research interests. In research article 27, different lexical choices were employed to convey attitude, such as the words “random” and “rationally”, suggesting a neutral opinion of the game. Interestingly, the use of “seems” indicated a contrasting attitude compared to “rationally”.

## Example 4

## Research Article 16:

..., may incur disciplinary consequences but the penalty standards are mostly **subjective** and **inconsistent**. It appears, therefore, to be **incoherent** of schools to hold students accountable without giving them clear guidance...

## Research Article 27:

It seems as if the game is **random** and that people **rationally** play each move a third of the time.

In brief, attitudes in NHSEWC introductions were conveyed explicitly through personal pronouns, linking the research to students' views, and implicitly through adjectives and evaluative language, reflecting skepticism, neutrality, or other perspectives. The variety in lexical choices and sentence structures highlighted the range of attitudes students adopt, from personal enthusiasm to critical evaluation.

### Gap in NHSEWC introductions

A total of 46 sentences were classified as gap in NHSEWC introductions. The analysis results revealed that most students tended to focus on investigating issues that were subject to debates, as illustrated in Example 5. Excerpts from research article 9 demonstrated this tendency, with students initially acknowledging the ongoing debate surrounding the existence of the Monarchy system. They then used “thus”, a discourse marker, to establish causal relationships and emphasize the necessity of addressing this topic. The research objectives were carried out by uses of “explore”, “elaborating”, and “evaluating”, were subsequently highlighted, following the word “issue” recognized as significant.

## Example 5

## Research Article 9:

*Whether to preserve or eliminate is debated among residents, with various viewpoints ... **Thus**, we wish to **explore** this issue through a systematic review, **elaborating** on the paths that ...and **evaluating** the possibilities of this system.*

A different approach was evident among students observed in NHSEWC introductions, as illustrated in Example 6. In these research article introductions, students first pointed out the insufficient literature on specific topics, emphasizing the significance of conducting research in these areas. For example, in research article 28, students employed phrases such as “however”, “not seem to”, “Besides”, and “other factors” to denote the lack of studies conducted on the topic. Consequently, due to this insufficiency, students proceeded to state the goals of their research, using “therefore” to link their ideas.

## Example 6

Research Article 28:

*However, based on the news reports and daily observations, financial factors do **not seem to** be ..., and ...have been increasing. Besides, financial factors, **other factors** may have played a role in it. Therefore, the present research aimed to explore the reasons of delay birth-giving.*

In brief, the identification of a gap in NHSEWC introductions was presented through debates or acknowledgment of insufficient research. Students highlighted ongoing issues using discourse markers like “thus” or emphasized the lack of literature, establishing the need for further exploration. This approach effectively framed the significance and objectives of their studies, demonstrating awareness of their contributions to academic discussions.

### Overlapping in NHSEWC introductions

After analysis, 41 sentences were identified as serving overlapping categories. Specifically, 17 sentences were classified as both territory and attitude, 18 as attitude and gap, 5 as territory and gap, and 1 sentence integrated all three categories. Example 7 includes all the overlapping sentences observed in NHSEWC introductions. In research article 3, two types of overlap were observed. In the category of territory plus attitude, the word “Through” introduced information sourced from the news, providing both the source and background information. Additionally, the word “understood” indicated a neutral attitude held by the subject “we” in receiving or acknowledging this news. In the category of territory plus gap, the first part of the sentence offered background information on the current status of the offline economy, while the phrase “worthy of in-depth discussion” in the second half indicated the need for further investigation, falling into the gap category. Research article 17 exemplified the category of attitude plus gap. Both the word “agree” and the phrase “want to” reflected the students' positive attitude toward the topic under investigation, while the purpose of the study was outlined, signaling the gap in knowledge. In research article 2, an integration of all three categories was observed, and this sentence was analyzed in three separate parts. The scenario introduced by the word “Once” in the first part fell into the category of territory. In the second part, the word “confused” expressed the students' attitude, implicitly suggesting the need to investigate the topic further. Finally, the words “hope” and the phrase “find the reason” explicitly stated the purpose of the research in the last part of the sentence.

## Example 7

Research Article 3:

*Through TBVS (2021) news, we understood that the proportion of delivery and online shopping in Taiwan is increasing yearly. [T+A] ...The offline economy **has been suppressed**, and whether such a development trend is good or bad is also **worthy of our in-depth discussion**. [T+G]*

Research Article 17:

*Therefore, after reading the novel, I **agree with** the opinion that Little Women is a feminism novel and I **wanted to investigate** the March family's story to prove how their actions or opinions demonstrate the power of feminism. [A+G]*

Research Article 2:

***Once**, the symptom of it was very serious during the class, and it made us so **confused** that we decided to research this issue, **hope** we can **find the reason** that caused these symptom and the methods to relieve it, and to help the people who were suffered from it to ease this troublesome illness through our research. [T+A+G]*

In brief, overlapping categories in NHSEWC introductions highlighted the interplay between territory, attitude, and gap. Students blended these elements to offer a comprehensive research introduction, intertwining background information with personal views (territory and attitude) and emphasizing research needs (territory and gap). The integration of all three categories showcased students' multifaceted approach in justifying the significance and focus of their studies.

### Patterns in NHSEWC introductions

Through an evaluative analysis of each sentence in NHSEWC introductions, distinct patterns in research article introductions were identified. Specifically, two structural patterns emerged, with one where the three categories functioned as continuous circles and another where they formed concentric circles. In the first pattern, 28 research article introductions demonstrated a seamless progression through these categories, as depicted in Figure 2. These introductions maintained smooth transitions between sentences, creating a coherent flow. For example, in research article 14, the introduction began with background information, establishing the research territory. The next sentence, introduced by the prepositional phrase “Through,” described students' engagement in related activities, further reinforcing the territory. Attitude was then conveyed through adjectives such as “gradually,” “clearer,” and “potential,” signaling the author's stance. Finally, the concluding sentence was divided into two parts, with the participial phrase led by adjectives like “cautious” and “intrigued” classified as attitude, while the remaining portion outlined research objectives and was categorized as gap. In contrast, 12 research article introductions exhibited a concentric pattern, as described by Huffman et al. (2023) and illustrated in Figure 3. These introductions showed frequent overlaps between categories, making clear delineations between territory, attitude, and gap less evident. Instead of following a structured progression, the discourse elements intertwined, resulting in a more fluid but less predictable flow. Despite these overlaps, the introductions remained well-developed. Research article 26 exemplifies this pattern and provides a concrete case for analysis.

## Example 8

## Research Article 14:

*In 2021 to 2022, we read a novel called “An Absolutely Remarkable Thing” (Green, 2018) in the “Introduction to Literature” class. [T] Through months of appreciation and discussions, we **gradually** has a **clearer** picture of the **potential** danger of social media [T + A] and the ...**Cautious** and **intrigued** by this complicated social phenomenon, we combed through various studies and references to **figure out** the nature and impact of cancel culture...as teenagers [A + G].*

## Research Article 26:

*Ranging from goods to kidneys to ..., representing 2.1% of the nation’s GDP (Giving USA, 2018) [T]. However, this human tendency to make sacrifices ...**cannot seem to explain** [A+G]. The predominant neoclassical economics theory ...when making decisions (**Halfpenny, 1999**). [T] ..., we specifically **examine** two common sources ...positive image of themselves (**Becker, 1974**) [T + G]. In this paper, we specifically **explore** ...both junior high and senior high [G].*

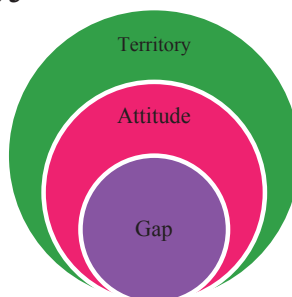
Figure 2



*The continuous circles of patterns in the NHSEWC introductions*

**Source(s):** Figure by the author

Figure 3



*The concentric circles of patterns in the NHSEWC introductions*

**Source(s):** Figure by the author

In brief, NHSEWC introductions followed two structural patterns: continuous and concentric circles. The continuous pattern (28 introductions) presented a smooth, logical flow of territory, attitude, and gap, while the concentric pattern (12 introductions) featured fluid transitions and overlapping categories. Both approaches effectively conveyed the necessary information, with varying degrees of structure and fluidity.

## Results from university teachers’ review

Based on the reviewing results, 22 research article introductions were marked as well-performing, 10 as acceptable, and 8 as underperforming. Unlike those marked as well-performing, introductions marked as acceptable were noted for several linguistic errors and somewhat unclear expressions in some sentences. However, those marked as

underperforming posed a threat to the quality of the NHSEWC, as they lacked sufficient background information and justification of the topic's significance. Most importantly, these research articles failed to demonstrate the necessary English proficiency in writing to qualify for extraordinary awards. Example 9 provided evidence for these results. In research article 2, grammatical errors marked by asterisk symbols were observed, with two found in the introduction alone, resulting in negative impressions of the overall research article (Kadhiravan & Thabab, 2017). In research article 4, although desired categories were identified based on the proposed framework, the quality of this introduction was deemed underperforming. The reviewers suggested further elaboration on the topic's selection and gaps.

Example 9

Research Article 2:

*The cultural similarities between **Taiwan and China, Hong Kong and Macau** typically \*prevents them from being categorized as a distinct country of origin from Taiwan. [T] This **group** of people \*play different roles in our society. [T] The increasing number of multi-ethnic foreign spouses **has contributed** to our cultural diversity...[T]*

Research Article 4:

***Nowadays**, breakfast shops have become diverse, and the number if breakfast shops **has been skyrocketed**. [T] Moreover, a new breakfast shop has been opening around our school lately. [T] As a breakfast **lover**, we **want to operate** a breakfast shop ourselves. [A+G] In order to fulfill our dream, we consider it **necessary** to do the preparation and **analyze the pros and cons**. [G]*

In brief, the review of university teachers revealed varying quality in NHSEWC research article introductions. While 22 were well-performing with clear communication, 10 were acceptable with some linguistic issues. The 8 underperforming introductions lacked sufficient background, justification, and contained language errors, which could impact eligibility for extraordinary awards, highlighting the need for clarity, coherence, and English proficiency in academic writing.

## Discussions

### Summary of findings

The present study aimed to evaluate NHSEWC introductions through discourse analysis and university teachers' perspectives. Evaluative analysis indicated that high school students used a wide range of words to convey territory, attitude, and gap. Since essays written in English can be submitted to this category, different genres may lead to varying word usages (Deng et al., 2024). This analysis laid the foundation for addressing research question two. Results revealed two patterns in NHSEWC introductions. The majority followed the continuous circles framework, while others fit the concentric circles framework proposed by Huffman et al. (2023). These results contradict Alanazi and Alqarni's (2022) study, which found that research papers in low-

ranking journals use shorter, more metaphorical sentences. In contrast, NHSEWC introductions are longer to fully address the background. Notably, NHSEWC cannot be easily classified as high or low-ranking despite its double-blind review process and publication standards. Using these award-winning introductions as teaching models yielded inconsistent assessments from two female higher education educators. Despite the awards, reassessment cast doubts on the research articles' quality and appropriateness. Based on these findings, the study discussed the quality of NHSEWC and provided insights for teaching high school students' English essay writing.

### **Evaluating the quality of national high school essay writing competition: perspectives and considerations**

In light of the findings, three major concerns regarding the quality of NHSEWC have been raised. First, despite discovering diverse lexical selections, the effectiveness of NHSEWC is uncertain due to several grammatical errors, indicating inconsistent quality. The frequent use of phrases like “underscore” and “given that” suggests reliance on AI tools like ChatGPT or contributions from companies or contractors (Liu, 2022). Second, the identification of two different patterns complicates teaching, as no definitive structure can be modeled. This issue is particularly evident with the concentric framework, where three different categories are dispersed throughout the introductions (Chen & Hsu, 2021; Li, 2021). Third, university teachers' reviews indicate that some research articles might not deserve their extraordinary rewards. Having high school teachers and administrative staff review diverse English essays contributes to this issue. Reviewers might favor research articles with more colorful figures and tables due to a lack of topic expertise. These concerns may diminish the significance of NHSEWC, undermining the 108 curriculum's goal of promoting English proficiency. To improve NHSEWC, fostering positive research ethics and high-quality writing is crucial. This can be achieved through two examination steps: preliminary screening for format and content completeness, followed by an on-site interview to verify the authors' work. The review process should involve both university and high school teachers, reducing biases and providing constructive insights. Contests held by The Center for the Study of Foreign Languages follow similar procedures, offering valuable experiences and collaboration opportunities.

### **Revolutionizing high school English essay teaching: insights from discourse analysis and university teachers' reviews**

According to the findings, combining teaching evaluations in discourse analysis with enhanced English writing skills can effectively address the challenges of teaching high school students to write academic research articles. Neither discourse knowledge nor writing skills alone suffices for this task. Given the concerns raised about NHSEWC's quality, utilizing ample award-winning research articles with teacher guidance can help students identify the strengths and weaknesses of these research articles. From the perspective of discourse analysis, identifying the uses of territory, attitude, and gap in NHSEWC articles can increase students' awareness of incorporating

these writing styles into their future work. Similarly, from the perspective of enhancing writing skills, reading through numerous model articles can help students reflect on and correct their own errors. Additionally, incorporating different in-class activities definitely help increase students' engagement level as well as their understanding. Under the implementation of the bilingual education policy in Taiwan, many teachers mistakenly believe that EMI simply means creating numerous activities (The Crossing Editorial Team, 2023). However, balancing teaching content and closely monitoring students' work can significantly enhance teaching effectiveness. It is essential to prioritize students' learning outcomes over the presentation of subjects and the performances of teachers. This misplaced emphasis on the appearance of teaching rather than genuine student comprehension can be a significant issue that undermines the overall effectiveness of education (Lin & Wang, 2022).

## Conclusion

In Taiwan, a veritable cornucopia of avant-garde educational policies and systems has seemingly blossomed overnight, beckoning a scholarly investigation into the myriad challenges faced by both learners and educators (Chen & Hsu, 2021; Li, 2021; The Crossing Editorial Team, 2023; Zheng & Chang, 2021). With the unveiling of the findings in the present study, there's a faint glimmer of optimism that perhaps educators in Taiwan could glean some insights, while simultaneously serving as a cautionary tale for their counterparts worldwide, shedding light on the intricate dance among student learning, pedagogical approaches, governmental policies, and the elusive notion of educational quality.

While this study provides valuable insights, three notable limitations suggest directions for future research. First, the analysis focused solely on introductions, which may limit the understanding of overall writing performance. Future studies could expand to include a broader range of works recognized by the NHSEWC, allowing for comparisons across research articles and award categories. Additionally, examining changes over several years could reveal trends in the evolving educational landscape. Second, the actual benefits students gained from NHSEWC participation remain unclear. A longitudinal study tracking student performance over time—through monthly exams, entrance exams, and university department selections—could shed light on the long-term impact of NHSEWC participation on academic development. Finally, the quality of the NHSEWC could be further enhanced, with this study offering only preliminary suggestions. Gathering perceptions from a larger sample of teachers and students is essential for informing improvements to contest regulations. Feedback from participants and educators can help policymakers identify areas for improvement and develop targeted strategies to raise the competition's overall quality. As former vice president of APQN and INQAAHE, Angela Yung Chi Hou stated,

“Education is inseparable from quality.” (personal communication via Line app, March 14<sup>th</sup>, 2024)

## Declarations

### Ethics approval and consent to participate

Not applicable

### Competing interests

There are no conflicts of interest to declare.

### Funding

No funding was gained when the present study was completed.

### Authors' contributions

The author completed the present study on his own, including concept development, writing up the research paper, data collection and analysis, and approved the final manuscript.

### Acknowledgements

The author wishes to express the gratitude to a former leader of the English department in National Chengchi University, professor Siaw-Fong Chung, who helped position the framework and provide insightful comments of the present study. In addition, the author also wants to give thanks to the teachers who helped in the data analysis process.

## References

- Alanazi, M., & Alqarni, M. (2022). The very first sentence in research article introductions: A rhetoric comparative approach. *Heliyon*, 8(8).  
<https://doi.org/10.1016/j.heliyon.2022.e10241>
- Burr, V. (1995). *An introduction to social constructionism*. Routledge.
- Chen, Y. Y., & Hsu, J. C. (2021). Exploration and Practice: Demystifying: All High School Students Must Learn! What's the Difference Between This Class and an Experiment? (【探究與實作·解惑篇】高中生都要學！這堂課和實驗有何不同?). *Parenting World*. Retrieved from  
<https://www.parenting.com.tw/article/5088162>
- Deng, L., Cheng, Y., & Gao, X. (2024). Engagement patterns in research article introductions: A cross-disciplinary study. *System*, 120, 103204.  
<https://doi.org/10.1016/j.system.2023.103204>
- Gill, R. (2000). Discourse analysis. In M. W. Bauer & G. Gaskell (Eds.), *Qualitative researching with text, image and sound: A practical handbook* (pp. 172–190). SAGE Publications.
- Halliday, M. A. K. (1994). *Introduction to functional grammar*. Edward Arnold.
- Hood, S. (2004). *Appraising research: Taking a stance in academic writing*. University of Technology, Sydney.
- Huang, Y. C. (2023). *Analysis of repetitive comparisons and citation practices in short essays by secondary school students* [Unpublished master thesis]. National Taiwan

- Normal University.
- Huffman, S., Cotos, E., & Becker, K. (2023). *Preparing to Publish*. Iowa State University Digital Press
- Hunston, S. (2000). Evaluation and planes of discourse: status and value in persuasive texts. In Hunston, S & Thompson, G (Eds.), *Evaluation in Text: Authorial Stance and the Construction of Discourse* (pp.177 -207). Oxford University Press.
- Hsu, T. J. (2022). The Implementation of the Twelve-Year National Education Curriculum and its Impact on the Learning Burden of High School Students: Issues and Responses (十二年國教課綱實施對高中生學習負荷的問題與因應). *Association for Taiwan Education Review*, 11(3), 7-13.
- Hyland, K. (1996). Writing without conviction? Hedging in science research articles. *Applied Linguistics*, 17, 433-454.
- Kadhiravan, T., Thabab, M. M. (2017). Introduction. In: Parija, S., Kate, V. (eds) *Writing and Publishing a Scientific Research Paper*. Springer, Singapore. [https://doi.org/10.1007/978-981-10-4720-6\\_5](https://doi.org/10.1007/978-981-10-4720-6_5)
- Li, J. Y. (2021, September 1<sup>st</sup>). "Taiwanese Students Accustomed to Stuffing Information, No One Is Regularly Fed..." Two Years After the Implementation of the 12-Year Basic Education Curriculum, Can It Really End Children's Busy and Confused Lives? (「習慣填鴨的臺灣學生，沒有人固定餵食...」108課綱上路2年，真能終結孩子的忙茫盲？). *UDN Weekly*. Retrieved from <https://udn.com/news/story/6839/5714428>
- Lincoln, Y. S., & Guba, E. G. B. H. (1985). *Establishing Trustworthiness*. In *Naturalistic inquiry* (pp. 289-331). SAGE.
- Lin, S. F., & Wang, Y. F. (2022). The leading role in "2030 Bilingual Nation Education" (「2030 雙語國家教育」的第一主角). *Dian Education*, 4(1), 25-27. Retrieved from <https://www.airitilibrary.com/Article/Detail?DocID=P20200409001-202206-202207060023-202207060023-25-27>
- Liu, Q. M. (2022). Is It Reasonable to Recycle One's Own Work? An Exploratory Study on Self-plagiarism by Students (一文多用合理乎？學生自我抄襲行為及因應之道初探). *Journal of Education Research*, 341, 76-93. 10.53106/16806360202090341006
- Martin, J. R., & White P. R. R. (2005). *The Language of Evaluation: Appraisal in English*. Palgrave Macmillan.
- Ministry of Education (2014). *Twelve-Year Basic Education Curriculum Guidelines: General Principles*. Taipei: Ministry of Education.
- Sinclair, J. M. (1981). Planes of discourse. In S. N. A. Rizvi (Ed.), *The twofold voice: Essays in honour of Ramesh Mohan* (pp. 70-91). Pitamber Publishing.
- Swales, J. M. (1990). *Genre Analysis*. Cambridge: Cambridge University Press.
- The Crossing Editorial Team (2023, May 23<sup>rd</sup>). *Taiwan's Bilingual Education Misunderstood? Teachers Speak Out: There's No Need to Insist on "All-English" Teaching; Just Making Sure Kids Don't "Hate It" is an Achievement!* (臺灣雙語教

- 育誤會大了？教師現身說法：沒必要堅持「全英語」教學，光是讓孩子「不討厭」就很難得了！）。Crossing. Retrieved from <https://crossing.cw.com.tw/article/17911>.
- The Editorial Team of Rethinking General Education (2019, December 9<sup>th</sup>). “*Pointing out Education*”: *High School "Essays," Major Educational Issues* (點教育》高中「小論文」，教育大問題). The Storm Media. Retrieved from <https://www.storm.mg/article/1877040>
- Thetela, P. (1997). Evaluated entities and parameters of value in academic research articles. *English for specific purposes*, 16(2), 101-118. [https://doi.org/10.1016/S0889-4906\(96\)00022-1](https://doi.org/10.1016/S0889-4906(96)00022-1)
- Xu, X., & Nesi, H. (2017). An analysis of the evaluation contexts in academic discourse. *Functional Linguistics*, 4(2), 1-17. <https://doi.org/10.1186/s40554-016-0037-x>
- Xu, X., & Nesi, H. (2019). Evaluation in research article introductions: A comparison of the strategies used by Chinese and British authors. *Text & Talk*, 39(6), 797-818. <https://doi.org/10.1515/text-2019-2046>
- Yeh, Y. P. (2010). *A study on information literacy of high school students participating in essay competitions* [Unpublished master thesis]. National Taiwan Normal University.
- Zhou, Z. Y. (2009). Toward a Twelve-Year Basic Education Program in Taiwan (邁向十二年國民基本教育——由繁化簡的高中、職免試入學方案). *Bulletin of National Institute of Educational Resources and Research*, 42, 25-43.
- Zheng, Y. Y., & Chang, Z. H. (2021). The Transformation of University Admission Systems: A Critical Analysis of Learning Portfolio Documentation (大學入學制度的變革—學習歷程檔案之評析). *Association for Taiwan Education Review*, 10(4), 24-30.



## 知識框架：臺灣的雙語教育是助力還是阻礙？

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### 摘要

本文介紹提出一個學習的新隱喻，「知識造局」（Knowledge Framing，KF。直譯應為知識架構，但以中文表達，知識造局與造局者更加傳神）。這是針對現有文獻有關學習隱喻的局限性而提出的。從面對科技發展與現行教育趨勢，知識造局比其它隱喻更能顯出其優越性。雖然知識建構（Knowledge Creation）這個學習隱喻，在教育界已廣被接納 20 餘年，它的局限已經慢慢浮現。如，太強調建構知識時的民主兼容過程，使之對即有知識的批判（Critical Disruption）稍嫌不足。知識造局把學習者視為造局者，藉著對即有知識的基本假設批判，來建構及優化知識框架。這樣的優化也體現在對決定知識正確與否的標準作重新的評估。當有新的資訊加入時，學習者身為造局者，要持續確保（優化）這些標準都是有效的。本文進一步討論 KF 與台灣雙語教育的關係。我們認為目前雙語教育的進行方式將不利知識造局的推廣。我們呼籲各界一起來探索一個更加整合的教育政策與作法，不要多頭馬車，相互掣肘。

關鍵詞：雙語教育、知識造局、學習隱喻、學習理論

## **Knowledge Framing: Is Taiwan's Bilingual Education an Enhancement or a Hindrance?**

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### **Abstract**

This paper introduces Knowledge Framing as a new learning metaphor to address the limitations of current educational paradigms, particularly in the face of rapid technological changes in the current education landscape. While the Knowledge Creation metaphor has guided educational practices for over two decades by emphasising collective knowledge advancement, it is increasingly constrained by its reliance on democratic and constructive processes and its lack of focus on critical disruptive approaches. Knowledge Framing offers an alternative by integrating both constructive and disruptive processes, fostering a dialectical approach that rigorously examines and refines ideas. Knowledge Framing positions learners as framers of knowledge, shaping the community's understanding by contesting and refining conceptual frames for critically examining assumptions underpinning established knowledge. Learners contribute to refining and reassessing the criteria by which knowledge is evaluated. They ensure these criteria remain credible and robust in light of new evidence or arguments. This paper discusses the Knowledge Framing metaphor in the context of Taiwan's bilingual education, specifically responding to the Bilingual 2030 initiative and its implementation. We contend that its current implementation may be a hindrance to our pursuit of Knowledge Framing. We urgently call for further exploration for more integrative approaches that balance different educational agendas.

**Keywords:** bilingual education, knowledge framing, learning metaphors, learning theories

## Introduction

The past decade has witnessed the widespread adoption of technology in education, resulting in significant transformations in teaching and learning practices. Advanced algorithms in AI are becoming increasingly capable of replicating sophisticated human capabilities, and even displacing humans' role of storing and curating knowledge and resources. This phenomenon is exemplified in the "generative AI" boom, where advanced algorithms in AI matched or even superseded humans' capability of creating content in multiple modalities (Jovanovic & Campbell, 2022). The recent emergence of AI chatbots, like ChatGPT, has disrupted normalcy in education, leaving institutions helpless to students' use of AI chatbots for graded assessments (Rudolph et al., 2023). These advancements increased society's reliance on technology and extensively augmented teaching and learning practices. While technology exponentially increased access to knowledge, it has also led to the need to manage the plenitude of information and resources (Mark, 2022; Lim et al., 2023). These advancements have also necessitated a re-examination of existing learning practices in this era of information abundance (Michel-Villarreal et al., 2023).

Despite these transformative changes in the educational environment, the metaphors that underpin learning designs and practices have remained curiously static for two decades. Tracing back to the academic discourse on learning metaphors, the last notable advancement occurred in the late 1990s, when the Knowledge Creation metaphor emerged (Scardamalia & Bereiter, 1994; Nonaka & Takeuchi, 1995). The Knowledge Creation metaphor significantly contributed to the advancements in teaching and learning, bringing focus to the importance of knowledge advancement. However, since the emergence of the Knowledge Creation metaphor, the education landscape has changed drastically, and thus it is vital to re-examine its relevance for the current times.

It is worth noting that while some researchers endorsed these learning metaphors, they further affirmed that merely describing them as metaphors did their contributions a disservice as the learning that had taken place is authentic and real (Bereiter & Scardamalia, 2014). We agree and affirm these ideologies, but still decided to adopt the term metaphor in this paper to allow a continued contribution to the existing line of literature. In this paper, we approach metaphors of learning, representing the evolution of education along with the changes in cultural and environmental shifts.

Building on Paavola and Hakkarainen (2005) work on the evolution of learning metaphors, this paper critically examines the limitations of the existing learning metaphors and offers a theoretical contribution by proposing Knowledge Framing as a new metaphor better suited to the complexities of today's education landscape. This paper begins by exploring the evolution and limitations of existing learning metaphors. We then introduce Knowledge Framing as a new metaphor that supports knowledge advancement through dialectic and disruptive processes in education. We conclude by discussing the implications for bilingual education and suggesting future directions.

## Metaphors of Learning

The scholarly exploration of learning metaphors began in the early 1990s with the identification of two primary metaphors: Knowledge Acquisition and Knowledge Participation (Sfard, 1998; Lave & Wenger, 1991). Later, Paavola and Hakkarainen (2005) introduced a third metaphor: Knowledge Creation. These metaphors represent fundamentally different perspectives and approaches to learning. This section outlines the chronological progression of these metaphors.

### Knowledge Acquisition

The Knowledge Acquisition metaphor conceptualises knowledge as an entity residing in the mind. This metaphor adopts a cognitive approach centred on mental models and schemas (Gardner, 1985) and cognitive functions (Sweller et al., 1998). Scholars in this tradition focused on maximising learners' working memory for effective information processing. For example, Sweller, van Merriënboer, and Paas (1998) argued that learning occurs through "constructing and automating schemas," constrained by the finite capacity of working memory. In language learning, the Knowledge Acquisition approach involves the transfer of knowledge from teachers to students. For instance, when teachers present vocabulary lists and grammatical rules for students to memorise and apply in writing assignments. However, this metaphor treats learning as an isolated cognitive activity occurring in one's mind (Fodor, 1980). Moreover, the Knowledge Acquisition metaphor places undue emphasis on the learner's ability to retrieve information, a task increasingly handled by technology-enabled storage systems, freeing cognitive capacity for other tasks. In light of these critiques, new learning metaphors emerged to offer a more holistic understanding of learning.

### Knowledge Participation

The Knowledge Participation metaphor frames learning as an activity situated in specific contexts, where "knowing and doing" are "interlocked and inseparable" (Brown et al., 1989, p. 35). This metaphor shifts the focus of learning from individual cognition to community involvement, emphasising learners' participation in shared practices that shape cognitive activity (Brown et al., 1989). Under this metaphor, knowledge is appropriated through participation in authentic activities, with novices learning from experts via ongoing practice. Notable frameworks include enculturation (Brown et al., 1989) and legitimate peripheral participation (Lave & Wenger, 1991), where learners engage in community-established practices, allowing their ideas and understanding to evolve while their beliefs and perceptions mature. By involving students in authentic practices, the Knowledge Participation approach enables them to grasp not just the meanings of concepts, but also their applications and significance through social interactions. In language learning, this approach is demonstrated through immersive language experiences, such as participating in conversation clubs or language exchange programs, where students engage in real-life dialogues and cultural practices. However, critics argue that Knowledge Participation is limited to the appropriation of existing

knowledge and lacks opportunities for knowledge advancement. To address this limitation, the Knowledge Creation metaphor was introduced.

## **Knowledge Creation**

Knowledge Creation centres on learning communities working collectively to advance knowledge. The Knowledge Creation metaphor was first introduced by Paavola and Hakkarainen (2005) as an emerging learning paradigm that emphasises how communities collaborate to advance knowledge. The Knowledge Creation metaphor symbolises a colossal step forward in addressing the limitations of the Knowledge Participation metaphor through prioritising innovation and transformation of knowledge. Defining works within the Knowledge Creation paradigm include knowledge building (Scardamalia, 2002), Knowledge Creation (Nonaka & Takeuchi, 1995), and expansive learning (Engeström, 1999; 2014). Out of these communities, knowledge building has a strong following and contributed to the advancement of understanding of Knowledge Creation for teaching and learning practices. With these contributions, fresh perspectives emerge as learning shifts away from adopting pre-established information and practices to one open to advancing knowledge.

The defining characteristics of the Knowledge Creation paradigm include (a) collective efforts from a democratic community and (b) constructing and improving ideas for knowledge advancement. Taking the principles of knowledge building as a reference (Scardamalia, 2002), principles of democratising knowledge, knowledge building discourse, and community knowledge, collective responsibility signals the importance of social structures and legitimises contributions from community members in the efforts towards knowledge advancement. On the other hand, principles such as improvable ideas and rise above emphasise innovation in learning by encouraging the constructive transformation of knowledge.

### ***Limitations of Knowledge Creation***

Although the Knowledge Creation metaphor has a longstanding influence on the education landscape, it faces limitations in today's era of information abundance. The metaphor has yet to achieve its potential, primarily due to two key issues: a preference for democratic rather than dialectic approaches, and a focus on constructive approaches and neglecting disruptive approaches.

The first limitation, democratic over dialectic approaches, stems from the tendency to prioritise broad participation in Knowledge Creation. The democratic approach is often adopted for Knowledge Creation as it legitimises all members as contributors to the learning community, sharing the responsibility for knowledge advancement. (Scardamalia, 2002). The democratic approach can lead to more contributions in a community, but it also presents a challenge in identifying the most promising ideas for further exploration. This can cause distractions and hinder the advancement of knowledge (Chen et al., 2011). For instance, Chen, Chang & Yang (2013) found that the knowledge building discussions evolved into increasingly segmented and disjointed

discourse as students were deterred from reading lengthy notes and found it challenging to keep up with the contributions made in the collaborative discourse. This is further exacerbated in the age of knowledge abundance, where recommender systems and generative AI simplify the retrieval and creation of knowledge, contributing more information to the learning community (Pavlik, 2023). For instance, Yeo and Tan (2010) observed that students often contributed to knowledge-building discourse by reproducing information from the internet without engaging in meaningful processing. While having more ideas and information is vital, the democratic approaches to Knowledge Creation create challenges in extricating the most promising ideas, a pressing problem in times of knowledge abundance with a myriad of noise in the learning environment (Chen et al., 2011; 2015).

The second limitation of the Knowledge Creation metaphor lies in its focus on constructive over disruptive approaches to learning. This relates to the metaphor's emphasis on building and improving ideas without adequately interrogating existing knowledge. While constructive efforts are encouraged to improve the quality of ideas, there are often insufficient opportunities for disruptive approaches involving rigorous debate and critical evaluation. Researchers have noted that collaborative discourse tends to promote ideas without adequately challenging them, reducing awareness of potential flaws and insulating against opposing viewpoints (Pluckrose & Lindsay, 2020). The focus on constructive approaches can stifle dissent and discourage learners from voicing concerns or identifying gaps, ultimately undermining academic rigour. This dynamic mirrors contemporary concerns in social justice scholarship, where individuals face pressure to conform to communal views, leading to self-censorship (Pluckrose & Lindsay, 2020). While the Knowledge Creation metaphor succeeds in generating information, the foundational assumptions of the knowledge are often left uncontested. This mirrors Kuhn's (1962, p. 36) observations about scientific revolutions, where research communities often advance knowledge by improving existing conceptions of phenomena by adding "to the scope and precision with which the paradigm can be applied". Knowledge Creation approaches risk focusing knowledge advancement efforts under a certain paradigm, and these constructive approaches to knowledge advancement validate and strengthen the paradigm. More efforts are needed to challenge existing paradigms and reassess the credibility of our assumptions.

To enhance the robustness and relevance of Knowledge Creation, it is essential to balance the development and improvement of ideas with their critical evaluation. A more balanced approach would allow for both the growth and rigorous examination of ideas, ensuring their applicability in addressing complex societal issues. Recognising these limitations, we propose the Knowledge Framing paradigm as an alternative approach to foster a more holistic and credible advancement of knowledge.

## **Knowledge Framing**

The Knowledge Framing metaphor represents an attempt to refashion the Knowledge Creation process by reorienting learning as the construction, interrogation, and refinement of conceptual structures, referred to as frames, that underpin knowledge

claims. At the core of Knowledge Framing is the idea that each knowledge claim is embedded within a frame comprising a coherent set of assumptions, evidence, and arguments. These frames serve as foundational structures that uphold the integrity of these knowledge claims. Learning, in Knowledge Framing, involves the practice of framing where one critically examines the frames for their internal coherence and credibility, and improves or reconstructs them when necessary.

Knowledge Framing takes a dialectical approach to learning, which integrates both disruptive and constructive approaches to advance knowledge. While the Knowledge Creation metaphor emphasises the collaborative co-construction of knowledge (Scardamalia & Bereiter, 2006), Knowledge Framing extends this by foregrounding the importance of disruptive processes in ensuring epistemic rigour. Framing involves not only developing or refining conceptual frames but also critically contesting existing ones, interrogating their underpinning assumptions, uncovering contradictions and limitations. In this sense, Knowledge Framing addresses a limitation in the Knowledge Creation metaphor, where the emphasis on improving ideas can overshadow the need for critique to maintain the robustness of knowledge claims. Through the iterative process of constructive and disruptive processes, Knowledge Framing ensures that knowledge is not only generated but also rigorously contested and validated. Over time, this iterative interrogation and construction of frames fosters a culture of ongoing evaluation and innovation of ideas.

Although the notion of framing is not novel (e.g., Goffman, 1974; Fairhurst & Sarr, 1996), it has not been well leveraged in the Knowledge Creation metaphor. Knowledge Framing elevates framing to the central mechanism of knowledge construction, where framing becomes the means by which knowledge is created, evaluated, and validated. The emphasis on framing parallels the argumentation literature, where learners probe deeper into relevant assumptions and identify conflicts when dealing with a problem (Besnard & Hunter, 2008). Knowledge Framing also shares some commonalities with Johnson's (1991) creational thinking, where learners critically approach problems and knowledge, challenging existing knowledge and entrenched assumptions while creatively seeking better alternatives. Knowledge Framing encourages the advancement of knowledge and ideas through framing as a systematic process to interrogate and re-examine knowledge. To elaborate, we discuss two themes that undergird the shift in approaches in Knowledge Framing: prioritising dialectic over democratic pursuits, and balancing constructive with disruptive approaches to learning.

### **Dialectic over Democratic Pursuits**

Taking a more dialectic over democratic stance to knowledge advancement cultivates a learning community that objectively separates the critique of ideas from the critique of the members of the community, allowing the investigation and reasoning of theory to take precedence. While democratic approaches welcome the generation of ideas, not critically dismissing ideas prematurely (Scardamalia, 2002), dialectic approaches are prudent in selecting ideas with the potential to advance knowledge. This

dialectical approach contrasts with democratic methods by emphasising the rigorous testing of ideas rather than consensus-building. This also enables contradictory and opposing ideas to the commonly established knowledge to surface. An example of dialectic over democratic pursuits would be a learning community choosing to collectively accept ideas based on discussing frames or criteria of knowledge over popular ones that have been raised by more members of the community. This approach prompts learners to consider ideas that may be more coherent with the frame of knowledge and justify their viability, fostering a more critical and dynamic learning environment.

### **Constructive and Disruptive Approaches**

As discussed, both constructive and disruptive are essential for knowledge advancement. While constructive efforts focus on improving knowledge, disruptive efforts challenge and assess the robustness of existing ideas, particularly the frames that underpin them. When existing ideas fail to withstand scrutiny, opportunities arise to develop more robust alternatives. Contrary to the solely constructive practices of Knowledge Creation, Knowledge Framing encourages learners to challenge assumptions or frames, deconstruct existing ideas, and propose more coherent alternatives. Although disruptive processes may appear counterproductive, they are crucial for determining the robustness of ideas. In Knowledge Framing, progress is gauged not by the improvement of concepts, but by their resilience under critical examination. This disruptively constructive approach resembles pruning a tree: less promising ideas are discarded, allowing stronger ones to flourish.

Knowledge is underlain with assumptions to be operationalised. Knowledge Framing emphasises the importance of challenging these foundational assumptions. By incorporating disruptive processes, Knowledge Framing encourages learners to critically assess and contest existing frames of knowledge, pushing the boundaries of established understanding and facilitating paradigm shifts. For example, when a widely accepted idea is challenged with counterexamples, it forces the community to re-examine the validity of both the idea and the foundational frame. This approach prioritises the development of credible, well-founded ideas over the mere accumulation of new ones, advancing collective understanding in a more rigorous and meaningful way.

#### ***Role of a Knowledge Framer***

In Knowledge Framing, learners take on the active role of knowledge framers, shaping and advancing the standards by which knowledge is created and validated. Learners engage in the practice of framing by beginning to consolidate their personal understandings of the knowledge claim, including the evidence for the validity of the knowledge and the arguments for its credibility. Learners will question prevailing assumptions, develop robust criteria for knowledge, and explore alternative justifications by constructing new frames that question or extend what is known. For example, a student might propose a frame that questions the assumptions behind a

widely accepted theory or introduce new criteria for assessing evidence, thereby opening the discussion to alternative viewpoints and methods.

Through framing, students contribute to a culture of critical debate and continuous knowledge improvement. They embrace disagreement as an essential element of knowledge advancement, testing their frames against competing perspectives and refining them accordingly. This ensures that only well-founded, credible ideas are sustained. In this process, students not only contribute to the knowledge pool but also shape the very methods by which knowledge is assessed and validated. In doing so, they develop a deeper understanding of the criteria for valid knowledge, enhancing their ability to navigate complex issues and advancing a culture of intellectual rigour and innovation. Table 1 summarises the learning metaphors discussed.

Table 1  
Summary of the learning metaphors.

Learning as	Knowledge Acquisition	Knowledge Participation	Knowledge Creation	Knowledge Framing
Approach	Transfer of knowledge	Participation in authentic practice	Democratic and constructive knowledge advancement	Dialectic over Democratic Pursuits
Role of student	Receiver <ul style="list-style-type: none"> <li>● Accept information</li> </ul>	Participant <ul style="list-style-type: none"> <li>● Participate in practices</li> </ul>	Builder <ul style="list-style-type: none"> <li>● Improve ideas</li> </ul>	Framer <ul style="list-style-type: none"> <li>● Question assumptions</li> <li>● Frame robust criteria for knowledge</li> <li>● Explore alternative justifications</li> </ul>

## Implications to Taiwan's Bilingual Education

Taiwan's government has set an ambitious goal to become a bilingual nation in English and Mandarin Chinese by 2030 through the "Bilingual 2030" policy. This national initiative is framed as an effort to enhance Taiwan's global competitiveness by increasing the country's appeal to multinational companies, thereby creating higher-quality job opportunities for local citizens. The policy aims to enhance the English proficiency of its citizens, enabling them to thrive in an increasingly globalised world (National Development Council, 2019; Ferrer & Lin, 2024). One example of this initiative is the implementation of the FERTILE bilingual model in schools (Lin, 2021; 2023), where English terms and phrases are integrated into various subjects when opportunities afford. This approach encourages students to encounter some English within the context of their regular lessons, with the aim of fostering familiarity with the language in various learning contexts. While this policy marks a significant step towards bilingualism, its current implementation may have unintended consequences that undermine more sophisticated Knowledge Framing approaches.

We contend that the sporadic introduction of English terms in Taiwan's bilingual education policy may cause a regression in learning practices towards Knowledge Acquisition approaches, rather than supporting deeper learning approaches such as those envisioned in Knowledge Framing. For students to be engaged in framing, a high level of language fluency is required to thoroughly understand the contextual and conceptual nuances underpinning the disciplinary content. However, when English terminology is introduced in an ad hoc or substitution manner, students with limited proficiency may risk disrupting the thinking process and hindering deeper cognitive engagement. For example, in a mathematics classroom, students might find themselves focusing on understanding the mathematical term by translating it from English to Chinese to grasp the concept in their native language. This preoccupation with translation diverts students' focus from engaging with the mathematics concepts, distracting students from higher-level cognitive processes that framing entails. The challenge of navigating a dual-language environment without sufficient English language proficiency can detract from the intended learning outcomes, creating a less conducive environment for dialectical thinking or critical discourse in either language. Consequently, learning may inadvertently regress students to forms of learning aligned with the Knowledge Acquisition metaphor.

A second critical implication of Taiwan's current bilingual education strategy lies in its reliance on substitution-based language learning, where Chinese terms are replaced with English equivalents during teaching. This approach, which focuses primarily on functional language use, does little to support the development of bicultural immersion necessary for deep appreciation of the English language. As language learning is intrinsically tied to cultural understanding, becoming proficient in a second language involves more than the substitution of terms; it involves engaging in culturally embedded reasoning and communication (Gee, 2012; Duff & Talmy, 2011). Learning English through substitution could promote students to engage with concepts through their first language's syntactic and semantic structures, rather than adapting to the distinct epistemic and discursive norms that English affords (Duff & Talmy, 2011). Such approaches are not likely to cultivate the unique ways of thinking and reasoning that emerge from a deep engagement with English, thereby limiting opportunities for Knowledge Framing across English and Chinese languages.

Achieving Taiwan's bilingual aspirations requires more than the parallel pursuit of language proficiency and critical thinking. It calls for an integrative approach in which second language acquisition is not merely a functional goal but is embedded within cognitively demanding practices such as Knowledge Framing. Rather than treating bilingualism and critical thinking as separate or competing aims, educational policy and design should be focused on synergistic reinforcement. This entails creating learning environments where the acquisition of English is interwoven with the sustained examination, critique, and reconstruction of ideas. In such contexts, language becomes not only a medium of communication but a tool for epistemic work, supporting learners in framing problems, interrogating assumptions, and articulating increasingly coherent knowledge structures. Such an approach advances the broader aims of bilingual

education by ensuring that the development of linguistic competence goes hand in hand with the cultivation of intellectual rigour.

A potential strategy is conceptualising bilingualism not merely as an educational initiative but as a societal transformation. An example would be to attempt to embed bilingualism into everyday life. This includes bilingual public signage, dual-language official documents, and promoting bilingual interactions in public services to create a more immersive environment for language acquisition. This societal integration of language learning fosters a natural and culturally embedded experience, allowing students to engage more deeply with both languages. By developing a bilingual society rather than a bilingual education system, Taiwan can create the conditions necessary for students to engage in Knowledge Framing, ultimately supporting their cognitive and linguistic development more holistically.

## Conclusion

The Knowledge Framing metaphor offers a compelling framework for rethinking Taiwan's approach to bilingual education under the Bilingual 2030 policy. Current implementation aims to gradually familiarise students with using English, such as substituting Chinese terms with their English equivalents across subjects. However, such approaches may inadvertently regress towards surface-level language familiarisation, limiting opportunities for deeper and critical engagement with the language and culture. Such policies and pedagogical approaches may enable the acquisition of a wide range of English vocabulary, but it is done at the expense of deeper cognitive engagement and cultural immersion. As such, this may compromise opportunities for cultivating higher-order thinking, contradicting the aims of bilingual education.

Conversely, the Knowledge Framing metaphor advances a dialectic learning approach that integrates constructive and disruptive processes. Learning through framing greatly differs from the accumulation and familiarisation of terminologies, but is an ongoing process of challenging assumptions, critiquing arguments, and exploring diverse perspectives in the pursuit of coherence and credibility. When viewed through the lens of Knowledge Framing, Taiwan's current bilingual education strategies appear misaligned with the broader education agenda on learning. A more integrative approach—one that aligns second language acquisition with opportunities for Knowledge Framing—is essential for realising the promise of bilingual education without compromising the depth and rigour of learning.

Nonetheless, significant challenges lie ahead in actualising Knowledge Framing within school systems. Existing education structures, characterised by high-stakes assessments and filled curricular expectations, remain more aligned and compatible with the Knowledge Acquisition and Knowledge Participation metaphors, prioritising the assimilation of the existing curriculum agenda. Knowledge Framing demands dynamism, reflexivity, and ongoing negotiation that are challenging to accommodate within the existing education systems. Moreover, for Knowledge Framing to occur in

bilingual classrooms, students must possess sufficient language proficiency to articulate, interrogate, and refine their conceptual frames. Learners with weaker language proficiency will require further support, such as carefully designed scaffolding, to achieve the process of framing.

In all, the Knowledge Framing metaphor surfaces an approach to rethink bilingual education not simply as a linguistic acquisition goal, but as an agenda not to be compromised while allowing for higher-order cognitive development. Realising this vision of framing requires systemic shifts in education goals and assessment culture. We call for further exploration in research and policy dialogue that explores how framing can be integrated with Taiwan's bilingual agenda in synergistic ways that foster bilingualism and dialectic knowledge advancement, creating a balance for different educational agendas.

## References

- Bereiter, C., & Scardamalia, M. (2014). Knowledge building and knowledge creation: One concept, two hills to climb. In *Knowledge creation in education* (pp. 35-52). Singapore: Springer Singapore. [https://doi.org/10.1007/978-981-287-047-6\\_3](https://doi.org/10.1007/978-981-287-047-6_3)
- Besnard, P., & Hunter, A. (2008). *Elements of argumentation*. MIT Press eBooks. <https://doi.org/10.7551/mitpress/9780262026437.001.0001>
- Brown, J. S., Collins, A., & Duguid, P. (1989). Situated cognition and the culture of learning. *Educational Researcher*, 18(1), 32-42. <https://doi.org/10.3102/0013189x018001032>
- Chen, F. C., Chang, C. H., & Yang, C. Y. (2013). Constructive use of authoritative sources among collaborative knowledge builders in social science classroom. In N. Rummel, M. Kapur, M. Nathan, & S. Puntambekar (Eds.), *To see the world and a grain of sand: Learning across levels of space, time, and scale: CSCL 2013 Conference Proceedings Volume 1—Full Papers & Symposia* (pp. 73-80). New York: International Society of the Learning Sciences.
- Chen, B., Chuy, M., Resendes, M., Scardamalia, M., & Bereiter, C. (2011). Evaluation by Grade 5 and 6 Students of the Promisingness of Ideas in Knowledge-Building Discourse. In Spada, H., Stahl, G., Miyake, N., & Law, N. (Eds.), *Connecting Computer-Supported Collaborative Learning to Policy and Practice: CSCL2011 Conference Proceedings. Volume II — Short Papers & Posters* (pp. 571-575). Hong Kong, China: International Society of the Learning Sciences. <https://doi.org/10.22318/cscl2011.571>

- Chen, B., Scardamalia, M., & Bereiter, C. (2015). Advancing knowledge-building discourse through judgments of promising ideas. *International Journal of Computer-Supported Collaborative Learning*, 10(4), 345–366.  
<https://doi.org/10.1007/s11412-015-9225-z>
- Duff, P. A., & Talmy, S. (2011). Language socialization approaches to second language acquisition: Social, cultural, and linguistic development in additional languages. In *Alternative approaches to second language acquisition* (pp. 95-116). Routledge. <https://doi.org/10.4324/9780203830932>
- Engeström, Y. (2014). *Learning by expanding*.  
<https://doi.org/10.1017/cbo9781139814744>
- Engeström, Y. (1999). *Innovative learning in work teams: Analyzing cycles of knowledge creation in practice*. In Cambridge University Press eBooks (pp. 377–404). <https://doi.org/10.1017/cbo9780511812774.025>
- Fairhurst, G., & Sarr, R. (1996). *The art of framing* (Vol. 358). San Francisco: Jossey-Bass.
- Ferrer, A., & Lin, T. B. (2024). Official bilingualism in a multilingual nation: A study of the 2030 bilingual nation policy in Taiwan. *Journal of Multilingual and Multicultural Development*, 45(2), 551-563.  
<https://doi.org/10.1080/01434632.2021.1909054>
- Fodor, J. A. (1980). Methodological solipsism considered as a research strategy in cognitive psychology. *Behavioral and Brain Sciences*, 3(1), 63–73.  
<https://doi.org/10.1017/s0140525x00001771>
- Gardner, H. (1985). *The mind's new science: A history of the cognitive revolution*. Basic Books.
- Gee, J. P. (2012). *Situated language and learning: A critique of traditional schooling*. Routledge. <https://doi.org/10.4324/9780203594216>
- Goffman, E. (1974). *Frame analysis: An essay on the organization of experience*. Northeastern UP.
- Johnson, K. G. (1991). *Thinking Creatically: A Systematic, Interdisciplinary Approach to Creative-critical Thinking*. Institute of General Semantics.
- Jovanovic, M., & Campbell, M. (2022). Generative artificial intelligence: Trends and prospects. *Computer*, 55(10), 107-112.  
<https://doi.org/10.1109/MC.2022.3192720>

- Kuhn, T. S. (1962). *The structure of scientific revolutions*. The University of Chicago Press, London.
- Lave, J., & Wenger, E. (1991). *Situated Learning: Legitimate Peripheral Participation*. Cambridge: Cambridge University Press.
- Lim, W. M., Gunasekara, A., Pallant, J. L., Pallant, J. I., & Pechenkina, E. (2023). Generative AI and the future of education: Ragnarök or reformation? A paradoxical perspective from management educators. *The International Journal of Management Education*, 21(2), 100790. <https://doi.org/10.1016/j.ijme.2023.100790>
- Lin, T. B. (2021). Constructing the “FERTILE” Bilingual Model in Taiwan: The Status Quo and Future Development in Secondary Education. *Secondary Education*, 72(1), 6–17. [https://doi.org/10.6249/SE.202103\\_72\(1\).0001](https://doi.org/10.6249/SE.202103_72(1).0001)
- Lin, T. B. (2023). *Bilingual Education: Practical Experience of Fertile Ground Model in Taiwan Teaching Field*. Higher Education.
- Mark, G. (2022). *Multitasking in the digital age*. Springer Nature.
- Michel-Villarreal, R., Vilalta-Perdomo, E., Salinas-Navarro, D. E., Thierry-Aguilera, R., & Gerardou, F. S. (2023). Challenges and opportunities of generative AI for higher education as explained by ChatGPT. *Education Sciences*, 13(9), 856. <https://doi.org/10.3390/educsci13090856>
- National Development Council. (2019). *Bilingual Nation 2030 Policy” 2019 Highlights by the Ministry*. National Development Council. [https://www.ndc.gov.tw/Content\\_List.aspx?n=FB2F95FF15B21D4A](https://www.ndc.gov.tw/Content_List.aspx?n=FB2F95FF15B21D4A).
- Nonaka, I., & Takeuchi, H. (1995). *The knowledge-creating company: How Japanese companies create the dynamics of Innovation*. Oxford University Press. <https://doi.org/10.1093/oso/9780195092691.001.0001>
- Paavola, S., & Hakkarainen, K. (2005). The knowledge creation metaphor—An emergent epistemological approach to learning. *Science & education*, 14, 535-557. <https://doi.org/10.1007/s11191-004-5157-0>
- Pavlik, J. V. (2023). Collaborating with ChatGPT: Considering the implications of generative artificial intelligence for journalism and media education. *Journalism & mass communication educator*, 78(1), 84-93. <https://doi.org/10.1177/10776958221149577>

- Pluckrose, H., & Lindsay, J. A. (2020). *Cynical theories: How activist scholarship made everything about race, gender, and identity—and why this harms everybody*. Pitchstone Publishing (US & CA).
- Rudolph, J., Tan, S., & Tan, S. (2023) ChatGPT: Bullshit spewer or the end of traditional assessments in higher education?. *Journal of Applied Learning and Teaching*, 6(1). <https://doi.org/10.37074/jalt.2023.6.1.9>
- Scardamalia, M. (2002). Collective Cognitive Responsibility for the Advancement of Knowledge. In B. Smith (Ed.), *Liberal Education in a Knowledge Society* (pp. 67-98). Chicago, IL: Open Court.
- Scardamalia, M., & Bereiter, C. (1994). Computer support for knowledge-building communities. *The journal of the learning sciences*, 3(3), 265-283. [https://doi.org/10.1207/s15327809jls0303\\_3](https://doi.org/10.1207/s15327809jls0303_3)
- Scardamalia, M., & Bereiter, C. (2006). *Knowledge Building: Theory, Pedagogy, and Technology*. In K. Sawyer (Ed.), *Cambridge Handbook of the Learning Sciences* (pp. 97-118). New York: Cambridge University Press.
- Sfard, A. (1998). On two metaphors for learning and the dangers of choosing just one. *Educational researcher*, 27(2), 4-13. <https://doi.org/10.3102/0013189X027002004>
- Sweller, J., Van Merriënboer, J. J., & Paas, F. G. (1998). Cognitive architecture and instructional design. *Educational psychology review*, 10, 251-296.
- Yeo, J., & Tan, S. C. (2010). Constructive use of authoritative sources in science meaning-making. *International Journal of Science Education*, 32(13), 1739-1754. <https://doi.org/10.1080/09500690903199564>



## 國立南大學教育學系「教育學誌」徵稿要點

2004.03.17 系法規小組訂定

2004.05.21 系務會議通過

2004.06.29 系務會議修訂通過

2007.09.14 系務會議修訂通過

2008.06.26 系務會議修訂通過

2008.09.22 系務會議修訂通過

2008.11.03 系務會議修訂通過

2011.10.14 系務會議修訂通過

2015.12.28 系務會議修訂通過

2017.06.07 系務會議修訂通過

2018.09.26 系務會議修訂通過

2021.04.13 系務會議修訂通過

一、徵稿內容：本學誌以倡導學術研究風氣為目的，徵稿範圍涵蓋以基礎理論或運用學科撰寫的教育議題，研究內容包括理論性論述分析，以及實徵性研究。非學術性稿件、報導性文章、教學講義、進修研習活動報告、翻譯稿件恕不接受。

二、截稿日期：本學誌採隨到隨審方式，每年五月、十一月出版。

三、撰寫原則：其他相關事宜請參考「教育學誌撰稿格式」

1.文稿字數：中文以 10,000 字至 25,000 字為限(含題目、中英文摘要、中英文關鍵字、註釋、參考書目、附錄、圖表等)。英文以 5,000 字至 10,000 字為限(含題目、中英文摘要、中英文關鍵字、註釋、參考書目、附錄、圖表等)。中文摘要、英文摘要篇幅以不超過 300 字為原則、中英文關鍵字各為二至五個。

2.本學誌之規格為 A4 大小，稿件之版面請以 A4 紙張電腦打字。

3.來稿之編排順序為中文摘要、英文摘要、正文(註解請採當頁註方式)、參考文獻、附錄。

4.英文稿件請參照美國心理學會(APA)之寫作格式(第七版)。

5.有關本學誌之「教育學誌投稿者基本資料表」、「著作權授權同意書」、「教育學誌撰稿格式」，請逕至國立臺南大學教育學系網站查詢，網址為 <https://edu.nutn.edu.tw/>。

四、審查方式：本學誌採匿名審查制度，先進行形式審查，再由「教育學誌編審委員會」聘請有關專家至少二人擔任審查工作。

五、文責版權：稿件以「未曾出版」之學術性期刊論文為限，並不得一稿多投。來稿如有一稿多投，違反學術倫理、無故撤稿、或侵犯他人著作權者，除由作者自負相關的法律責任外，二年內本學誌不再接受該位作者投稿。

六、稿件交寄：投稿者請詳填並備妥「教育學誌投稿者基本資料表」、「書面稿件」和「電子全文檔案」(word 格式，採傳送電子檔方式)各 1 份，以掛號交寄。

七、投稿地址：投稿地址為「臺南市（郵遞區號 700301）樹林街二段三十三號，收件者：國立臺南大學教育學系教育學誌編審委員會」。稿件請自備副本，本學誌一概不退還稿件。

八、聯絡人：有任何事項逕行與本學誌執行秘書聯絡。

連絡電話：(06) 2601753；e-mail：tenyun@mail.nutn.edu.tw。

九、通知錄用與否：稿件寄出後，請以 e-mail 方式知會本學誌執行秘書，本學誌將在收稿後兩週內通知投稿者收到稿件訊息。本學誌將在收稿後，儘快回覆審查結果。來稿若經採用，請填具「著作權授權同意書」，將發給「接受刊登證明」。

十、校正與抽印本

(一) 來稿若經採用，本期刊因編輯需要，保有文字刪修權。

(二) 作者應負論文排版完成後的校對之責。

(三) 本學誌出版後將致贈當期學誌三本。如需抽印本者，請自行至本系網頁下載全文。

十一、本要點經系務會議通過後實施，修正時亦同。

# 教育學誌撰稿格式

## 壹、稿件版面規格

- 一、來稿請用A4格式電腦打字，四界邊界為2.5公分，並以word文字檔存檔，行距為單行間距，每頁須加註頁碼。中文稿件以10,000字至25,000字為限（含題目、中英文摘要、中英文關鍵字、註釋、參考書目、附錄、圖表等）。英文稿件以5,000字至10,000字為限（含題目、中英文摘要、中英文關鍵字、註釋、參考書目、附錄、圖表等）。
- 二、中文字型一律採用新細明體，標點符號與空白字為全形字；英文字型一律為 **Times New Roman**，標點符號與空白字為半形字體。除各項標題外，內文不分中英文均為 12 級字體。
- 三、所有稿件皆應依以下之順序撰寫：
  - (一) 來稿之編排順序為中文標題頁、英文標題頁、正文（表（**Table**）、圖（**Figure**）請置於文中，註解採頁下註）、參考文獻（**References**）、附錄（**Appendix**）。
  - (二) 標題頁內含：
    1. 篇名（**Title**）：英文篇名除冠詞、介系詞外，第一字母均應大寫，使用 18 級字體，粗體，置中。
    2. 作者姓名職稱及服務單位：14級字體，置中。
    3. 摘要（**Abstract**）：中文摘要與英文摘要，以不超過300字為原則，使用12 級字體（文的左緣和右緣需調整切齊）。
    4. 關鍵詞（**Keywords**）：以二到五個為原則，使用 14 級字體。中文稿件之中文關鍵詞由小到大依筆畫排列，英文關鍵詞依中文關鍵詞順序排列；英文稿件之英文關鍵詞按字母順序排列，中文關鍵詞依英文關鍵詞順序排列。
- 四、本刊為雙向匿名審查，請勿於稿件中出現作者姓名或任何足以辨識作者身分之資料。
- 五、文中凡人名，若為外來者，應逕用原文呈現；專有名詞若為外來者請使用慣用之譯名，並於第一次使用時以括號標註原文，若無慣用譯名時，應逕用原文。

## 貳、正文規格

### 一、中文標題

文章篇內的節次及子目，以五個層次為原則，選用次序為：

**壹**、（16 級字體，新細明體，粗體，置中）

一、（14 級字體，新細明體，粗體，齊左）

（一）（12 級字體，新細明體，粗體，齊左）

1.（12 級字體，Times New Roman，粗體，齊左；標題本身之中文字體為新細明體）

(1)（12 級字體，Times New Roman，粗體，齊左；標題本身之中文字體為新細明體，標題後加句號，直接接內文）

### 二、英文標題

文章篇內的節次及子目，以五個層次為原則，選用次序為：

**Introduction**（16 級字體，Times New Roman，粗體，置中）

**Barriers to Inclusion**（14 級字體，Times New Roman，粗體，齊左）

***Limited Time for Planning and Training***（12 級字體，Times New Roman，斜粗體，齊左）

**Principal's Attitude**（12 級字體，Times New Roman，粗體，縮排 2 字元，標題後加句號，直接接內文）

***Principal's Attitude***（12 級字體，Times New Roman，斜粗體，縮排 2 字元，標題後加句號，直接接內文）

## 參、引用文獻格式

### 一、注意事項

- （一）作者：中文作者姓名全列，英文作者僅列姓氏。
- （二）出版年分：均使用西元年分。
- （三）文獻在同一段落中重複引用時，第一次須完整註明，第二次以後可省略年分；若在不同段落中重複引用時，則仍須完整註明。

### 二、引用部分文獻內容

若引用特定文獻時，資料來自於特定章、節、圖、表、公式，須標明特定出處；如引用整段原文獻資料，須加註頁碼。

#### 【範例】

艾偉（1955，頁 3）或（艾偉，1955，頁 6-7）

Watson (1918, p. 44) 或 (Watson & Johnson, 1918, pp. 4-5)

### 三、作者人數為一人

#### 【範例】

艾偉 (2007) 或 (艾偉, 2007)

Watson (2010) 或 (Watson, 2010)

### 四、作者人數為兩人

#### 【範例】

艾偉與陳俊明 (2012) 或 (艾偉、陳俊明, 2012)

Watson & Johnson (2018) 或 (Watson & Johnson, 2018)

### 五、作者人數為三人以上

(一) 僅需要寫出第一位作者，後面再加上「等人」或「et al.」。

#### 【範例】

艾偉等人 (2017) 或 (艾偉等人, 2017) 或 Watson 等人 (2012)

Johnson et al. (2010) 或 (Watson et al., 2014)

(二) 若作者縮減後與其他文獻會產生混淆（第一作者與年分皆相同），請將作者逐一列出至可區辨者。

#### 【範例】

Watson、Johnson、Lin 等人 (2015)

Watson、Johnson、Tai 等人 (2015)

(三) 若僅最後一位作者不同，則每次引用時都要將所有作者列出。

#### 【範例】

Watson、Johnson、Eva 與 Bryan (2012)

Watson、Johnson、Eva 與 Chris (2012)

### 六、作者為團體或機構

第一次出現寫出全名，再備註簡稱，第二次之後即可使用簡稱。若無簡稱，則每次都列出全名。若機構名僅於文內出現三次以下，則皆使用全名。

【範例】全球穿戴式裝置數量會從2017年目前的1.132億部，預估到2021年時將增加到2.223億部（International Data Corporation[IDC], 2017）...其中腕戴式穿戴裝置，占了全部穿戴式裝置整體市場銷售量的94.1%（IDC, 2017）

## 七、同一作者不同著作

同時引用同作者同年代多筆文獻時，應以 a、b、c……標示，並依此排序。

### 【範例】

（教育部，2009a，2009b，2009c，2009d）

## 八、引用相同姓氏作者

引用文獻為英文作者時，若有兩筆文獻之第一作者姓氏相同時，須列出第一作者「名字」簡稱。

### 【範例】

學者 K. Lew（2006），以及 N. B. Lew 與 Lew（2008）針對……。

## 九、同時引用多筆文獻

依中文、日文、英文之順序排列；中文作者按筆畫排序，英文則依字母排序，每筆文獻之間以分號「；」區隔。

### 【範例】

（艾偉，2003；林俊明、林子豪，2005；柳承、陳基宏，2006；陳浩然，2016；張子豪，2003a；黃鈺傑，2003，2006；Florence, 2000; Olympia, 2005）。

Barry 等人（2013）、Liu（2011）、Peng 與 Sophronia（2013）及 Zoe 與 Theodore（2012）研究證實……

## 十、引用翻譯文獻

採用（原作者，原著出版年分/譯本出版年分）的標示方法。

### 【範例】

（Johnson, 1972/1977）或 Johnson(1972/1977)

## 十一、直接引述

若引文超過四十字，則須另起一段，中文稿件改為標楷體 12 點字體、英文稿件改為斜體 12 級字體，左右縮排兩字元，與正文間前後空一行。

### 【範例】

吳清山（2000, p. 9）在闡述教育111的定義與內涵時指出：

教育111，是一種教育的想像和實踐，他根源於古今中外教育家的教育觀淬鍊而成，提供教育發展的思考方向和教育政策的施政重點，其內涵包含一校一特色、一生一專長、一個都不少。

## 肆、參考文獻格式

### 一、注意事項

#### (一)、排序

文獻順序以中文文獻在先、外文文獻在後。中文文獻依作者姓氏筆畫順序排列，外文文獻則依作者姓氏字母順序排列。每個作者第一行由第一格開始寫，第二行內縮兩個字元。必須全部列舉正文中引用過之文獻，不得列出未引用之文獻。

#### (二)、標點符號

中文文獻應使用全形的標點符號，英文文獻則使用半形的標點符號，在半形標點符號後須空一格半形空格書寫。

#### (三)、英文名稱之大小寫

期刊篇名與書名除了第一個、冒號之後或專有名詞之第一個字母大寫外，其餘均使用小寫。期刊名稱除了介系詞與連接詞外，每個字的第一個字母大寫。

#### (四)、書籍的版次或卷數

於書名後列出，不用斜體。如：（第三版）/ (3rd ed.)、（第二版第四卷，頁 133）/ (2nd ed., Vol. 4, pp. 123)、（修訂版）/ (Rev. ed.)。

#### (五)、多人文章

1. 作者為一到二十位：須全列出作者姓名，如果為英文文獻，須在最後兩位作者之間加上「, &」，「,」與「&」之間須空一格半形空格。
2. 二十一位（含）以上作者群，則僅列出前十九位與最後一位作者姓名，中間以「...」連接。

#### (六)、接受刊登之稿件

1. 作者應另提供參考文獻之數位物件辨別碼（DOI）（格式請使用：<https://doi.org/###>），以及中文參考文獻之英譯資料，附加方式為置於該筆中文文獻的下一行，並以方頭括號【】標示。
2. 若中文參考文獻已有相對應英文翻譯，請以現成的英文意譯為主；沒有相對應英文翻譯時，有些作者的姓名在學術界已有慣用拼法，有些名詞（如：出版社）也已有通行或正式的拼法，請採用通行或官方的拼法，請勿自行音譯之。

### 二、期刊與雜誌

#### (一)、已發表

##### 【格式】

作者名（年分）。篇名。期刊名，卷數（期數），頁數。

Author, A. A. (Year). Title of article. *Title of Periodical*, ##, ###-###.

【範例】

許家驊（2011）。歷程導向設計及學習策略中介教導對個體不同層次數學解題學習潛能開展效益影響之動態評量研究。**教育心理學報**，**43**（1），127-154。

Bilecen, B. (2020). Commentary: COVID19 pandemic and higher education: International mobility and students' social protection. *International Migration*, 58(4), 263-266.

(二)、已接受，未發表

【格式】

作者名（付梓中）。篇名。期刊名。

Author, A. A. (in press). Title of article. *Title of Periodical*.

【範例】

王曉名、蔡筱華（付梓中）。教育與管理。**教育研究期刊**。

Sam. (in press). Education and management. *Journal of Research in Education*.

三、未出版碩博士論文

【格式】

作者名（年分）。論文名〔未出版博士論文／碩士論文〕。學校名稱。

Author, A. A. (Year). *Title of article* [Unpublished doctoral dissertation/master's thesis]. Name of Institution.

【範例】

劉小村（2021）。校園環境對學生學習的成效影響〔未出版碩士論文〕。台南大學。

Sophie (2014). *Will Learning environment affect students?* [Unpublished doctoral dissertation]. Tainan University.

四、學術研討會論文

(一)、未出版

【格式】

作者名（年分，日期）。篇名。研討會名稱，舉辦城市，國家。

Author, A. A. (Year, Month Day). *Title of contribution*. Conference Name, Location, Country.

【範例】

歐陽閻、顏百鴻（2021，10月）。國小學童參與親子配對程式設計之成效評估。2021 教育高階論壇國際學術研討會「後疫情時代全球教育發展的改變與挑戰」，臺南市，臺灣。

Sacks, B. (2018, July). Sport for all - History of a Vision. 19th Congress for the International Society for the History of Physical Education and Sports, Münster, Germany.

## (二)、已出版

1. 書：與「編輯書」相同格式，請見第六項。
2. 期刊：與「期刊論文」相同格式，請見第二項。

## 五、專書

### 【格式】

作者名（年分）。書名。出版社名稱。

Author, A. A. (Year). *Book Title*. Publisher Name.

### 【範例】

蘇薌雨（1960）。心理學新論。大中國。

Guilford, J. P. (1967). *The nature of human intelligence*. Harper& Row.

## 六、編輯之書本

### 【格式】

主編名（主編）（年分）。書名。出版社名稱。

Author, A. A. (Ed./Eds.). (Year). *Book title*. Publisher Name.

（主編只有一位時用「(Ed.)」，兩位以上用「(Eds.)」）

### 【範例】

林清江（主編）（1981）。比較教育。五南。

Letheridge, S., & Cannon, C. R.(Eds.).(1980). *Bilingual education: Teaching English as a second language*. Praeger.

## 七、書籍中之專章

### 【格式】

作者名（年分）。章節名稱。載於主編名（主編），書名（頁#-#）。出版社名稱。

Author, A. A. (Year). Title of chapter. In E. E. Editor (Ed./Eds.), *Book title* (pp. #-#).

Publisher Name.（英文專書主編「名字」縮字放在「姓」之前）

### 【範例】

林巧瑋、方志華（2016）。新世代幼兒的創造性戲劇教學探究：以在地化課程為例。載於張芬芬、方志華（主編），面對新世代的課程實踐（頁3-29）。五南。

Kahn, J. V. (1984). Cognitive training and its relationship to the language of profoundly retarded children. In J. M. Berg (Ed.), *Perspectives and progress in mental retardation* (pp.211-219).

University Park.

## 八、翻譯作品

若為中文譯本，其文獻須列於中文文獻最前面，如有兩筆以上翻譯文獻，依照英文字母排序。

### 【格式】

原作者名（翻譯本出版年分）。**翻譯書名**（譯者，譯）。譯本出版社。（原著出版於####年）

Author, A.A. (Year). *Book title* (Translator, Trans.). Publisher. (Original work published year)

### 【範例】

Kaplan, J. (2016)。感恩日記：每天寫下一件令你感恩的事，改變心念，翻轉人生，發現最美好的自己！（林靜華，譯）。平安文化。（原著出版於2016年）

Habermas, J. (1984). *The theory of communicative action* (T. McCarthy, Trans.). Boston: Beacon Press. (Original work published 1981).

## 九、專題研究計畫與機構研究報告

若沒有計畫編號則不需要填寫；機構名稱與出版單位相同時，可省略出版單位。

### 【格式】

作者名或機構名（年分）。**篇名**（計畫編號）。出版單位。

Author/Name of Group. (Year). *Title of report* (Report No. xxx).

Publisher name. <https://xxxxxx>

### 【範例】

季力康（2016）。結合依附理論探討賦權動機氣候對教練選手關係之預測與介入研究(MOST105-2410-H003-058-MY2)。國立臺灣師範大學。

臺灣網路資訊中心（2020）。2020台灣網路報告。

[https://report.twnic.tw/2020/assets/download/TWNIC\\_TaiwanInternetReport\\_2020\\_C](https://report.twnic.tw/2020/assets/download/TWNIC_TaiwanInternetReport_2020_C)

行政院衛生署（2006）。民國九十二年台灣地區中老年身心社會生活狀況長期追蹤（第五次）調查成果報告。

<https://www.hpa.gov.tw/Pages/Detail.aspx?nodeid=242&pid=1282>

Johnston, L. D., O'Malley, P. M., Bachman, J. G., & Schulenberg, J. E. (2009). Monitoring the Future: National Survey Results on Drug Use, 1975-2008. (NIH Publication No. 09-7402). National

Institute on Drug Abuse.  
<https://files.eric.ed.gov/fulltext/ED508295.pdf>.

## 十、出自特定資料庫之報告

### 【格式】

作者名或機構名（年分）。篇名（資料庫編號）。資料庫名稱。  
網址

Author/Name of Group. (Year). *Title of report* (Database Number).

Publisher name. <https://xxxxx>

### 【範例】

Ford, C., Yore, L. D., & Anthony, R. J. (1997). Reforms, visions, and standards: A cross-cultural curricular view from an elementary school perspective (ED406168). ERIC.

<https://files.eric.ed.gov/fulltext/ED406168.pdf>.

## 十一、網路資料

### 【格式】

作者名（年分）。篇名。網站名稱。網址

Author, A. A. (Year). *Article title*. Website Name. <https://xxxxx>

### 【範例】

邱莉燕（2021）。怎麼做教育創新？107個台灣最強教案，以創新點亮未來。遠見。<https://www.gvm.com.tw/article/85236>

Robson, D. (2022). *Intentionally seeking the feeling of awe can improve memory, boost creativity and relieve anxious rumination*. BBC News.<https://www.bbc.com/worklife/article/20220103-awe-the-little-earthquake-that-could-free-your-mind>

## 伍、圖表與照片格式

- 一、請提供清晰的圖檔或照片，以利辨識。
- 二、圖表標題須簡明扼要，其標題置於圖表的上方置左，標題末不須加句號。圖表皆須配合正文用阿拉伯數字加以編號並用粗體表示，同時與前後文空一行。
- 三、若有資料來源，應於圖表下方附加說明，同時可視需要加以註解，圖表中文字可用簡稱，若簡稱尚未約定成俗或未曾在正文中出現，則須於圖表的註解中列出全稱。
- 四、表格之製作，以簡明清楚為原則，採用橫線繪製，以不使用直欄分隔線為原則（中間與兩邊不必畫線）。

五、每一個圖表的大小以不超過一頁為原則，如超過時，須在前頁的表右下方加上（續）或是(continued)，並於下頁表標題後方加上（續）或是(continued)。

六、圖表下方之註解，須靠左對齊並於句末加上句號。

(一)、一個註解：中文稿件以「註：」表示；英文稿件以「Note.」表示（Note 為斜體）。

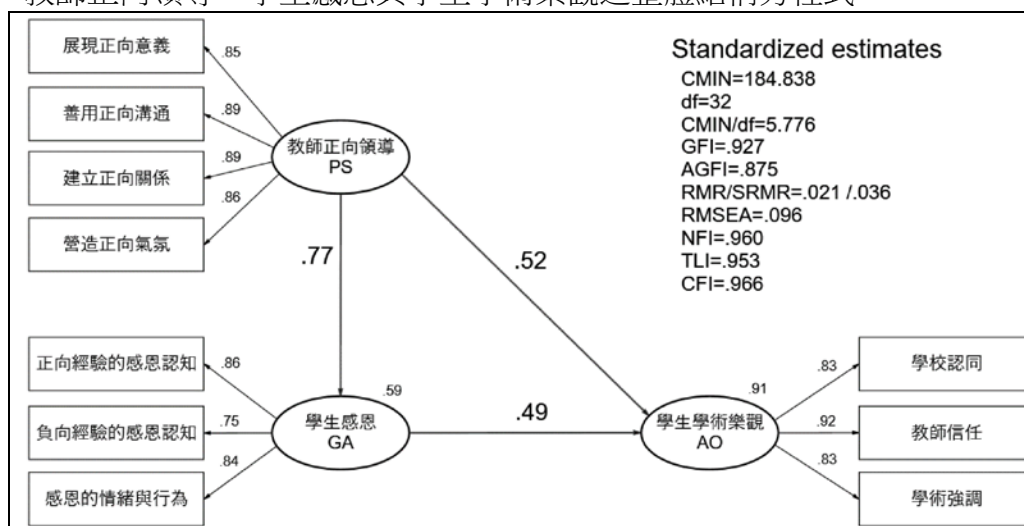
(二)、一個註解以上，註解順序依序為：

1. 一般註解：限定、解釋或提供表、圖的相關資訊（以「註」表示）。
2. 特別註解：特定的某個直欄、橫欄或個別的條目有關（以上標「a、b、c」分段表示）。
3. 機率註解：指出顯著性考驗的結果（以「\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .」表示）。

## 【圖例】

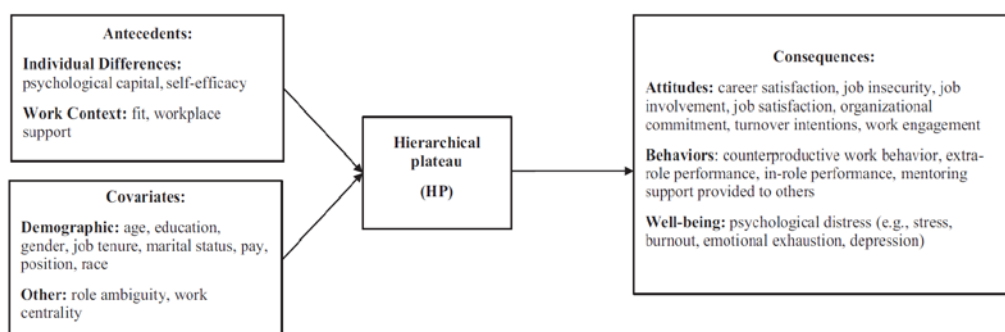
圖 2

教師正向領導、學生感恩與學生學術樂觀之整體結構方程式



註：引自「國小學生知覺教師正向領導對學生學術樂觀之影響：以學生感恩為中介變項」，鍾沛涵、丁學勤、陳柏青，2020，**教育學誌**，44，頁32。

Figure 1  
Summary of the antecedents and consequences of HP



*Note.* From “A meta-analytic study of subjective career plateaus,” by Hu, C., Zhang, S., Chen, Y. Y., & Griggs, T. L., 2022. *Journal of Vocational Behavior*, 132, p.4 °

## 【表例】

表 3  
社會支持對學業成績比較（獨立  $t$  考驗）

項目	控制組 n=39		實驗組n=43		兩組平均差 <sup>b</sup>	$t$ 值
	平均數	標準差	平均數	標準差		
家人支持 <sup>a</sup>	4.44	1.08	4.17	1.06	0.27	3.53***
朋友支持 <sup>a</sup>	3.81	1.90	4.18	1.79	-0.37	-3.81***
重要他人支持 <sup>a</sup>	4.25	1.03	4.73	1.08	-0.48	-4.57***

註：

<sup>a</sup> 各項目的滿分為7。

<sup>b</sup> 兩組平均差＝控制組平均數－實驗組平均數。

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

## 陸、附錄格式

附錄置於參考文獻之後。附錄如有兩個以上時，依順序分別註明「附錄一」、「附錄二」……（英文稿件為 Appendix A、Appendix B……），如有標題（置中），格式如「附錄一 標題」。

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投稿日期	年      月      日	投稿序號	(免填)
字數	(字數請用電腦字數統計)	語文類別	<input type="checkbox"/> 中文 <input type="checkbox"/> 英文 <input type="checkbox"/> 其他(_____)
論文名稱	中文：		
	英文：		
作者註	<input type="checkbox"/> 本篇論文為碩、博士論文改寫，指導教授為_____。 <input type="checkbox"/> 本篇論文符合學術倫理準則 <input type="checkbox"/> 本篇論文原創性比對結果20%以下 <input type="checkbox"/> 本篇經所有作者同意投稿		
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	英文：	英文：	
第二作者	中文：	中文：	
	英文：	英文：	
如作者超過二人以上，請依上述格式自行增補欄位			
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以上所填資料如有不實，責任由作者自負。 作者代表簽名：_____ <div style="text-align: right; margin-top: 10px;">           _____年_____月_____日         </div>			

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