

圳水傳承，潤澤校園：從教案比賽引領農田水利文化扎根校園

From Canals to Classrooms : Rooting Irrigation Culture in Schools through a Teaching Plan Competition

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摘要

水圳推動了臺灣農業的發展，並衍生了包含思想、制度、祭儀與習俗等豐富而有趣的農田水利文化。然而，因為大環境的變遷、工商業的發展、都市的擴張以及生活習慣的改變等因素，水圳為符合現今民眾與產業發展的需求，逐漸有汙染、廢棄或加蓋等情事，與民眾的日常生活連結性減弱，農田水利文化也隨之式微，爰此，透過不同形式與作為保護並傳承這些文化，為刻不容緩的要務。為此，農業部農田水利署於民國 113 年辦理首屆「古圳、農田水利及食農教育國民小學教案設計競賽」，徵求臺灣各地小學教師發揮專業與創意，設計能引導小學生認識古圳與農田水利文化，並融入食農教育內涵的教案，透過在地化的教案與專業的教學，培養學生從小對生活周邊水圳與農田水利文化的認識與重視。

在首屆競賽籌備時期，執行單位研析各式主題的教案比賽規則、簡章及時程，同時了解十二年國民基本教育課程綱要課本中有關古圳的相關內容後，擬定徵件主題、办理流程、評分標準、相關規則以及簡章格式等，並聘請農田水利、食農教育等相關專家為評審委員，組成評審委員會審議 25 件投稿作品，並分別選出團體組 5 件與個人組 4 件獲獎教案，獲獎教案公布於農田水利署官方網站與食農教育資訊整合平台網站上，綜合評審委員之意見，9 件獲獎教案巧妙融合了古圳、農田水利與食農教育三項主題，教案設計兼具在地化、跨領域、體驗式以及運用多元工兼具四類亮點，除了生動有趣以外，更能夠推廣在地水圳的特色與文化，且有一定程度的可行性，使國小學童在課程的引導下，從小親近並了解古圳。

113 年教案比賽的個人組第一名為臺中市新社區新社國小吳佩如老師的《白冷圳之水-澆灌芬芳馥郁香菇「胞」》，該作品完整結合臺中白冷圳的歷史、水利設施及食農教育，在古圳歷史、農田水利、水資源及當地特產等相關議題設計比重均衡。學生先透過繪本與影片，認識白冷圳設計興建者磯田謙雄工程師與白冷圳的故事，以及白冷圳對新社居民的重要性。並以小組討論的方式探討保護與推廣白冷圳的方法，達成關懷當地水圳的

目標。最後安排了白冷圳特產—香菇的食農教育課程，結合當地香菇農場體驗現場採摘與手作活動，認識白冷圳對香菇的重要性、香菇的生產過程、菇農的辛勞並學習珍惜食物。團體組第一名為彰化縣埔鹽鄉南港國小的陳靜玉與賴盈璇兩位老師合作設計的《水·稻·渠·程》，該教案以彰化八堡圳為核心，教學內容融入了歷史發展、古圳文化與特色農產，兼具農田水利主題與食農教育的三面六項，教學活動流程與實施方式的可行性高，整體設計精彩活潑且淺顯易懂，將認識水圳帶進學生的日常生活中。最後，結合當地的社區發展協會，介紹傳統節慶米食，並帶領學生製作紅龜粿，讓學生可以透過實地走訪與動手製作，了解農田水利設施對灌溉農產品的重要性。

農水署透過辦理教案比賽，鼓勵國小教師設計教學課程，引領學生認識校園周邊的圳路與農田水利文化，獲獎的作品公開於農水署網站及食農教育平台網站，提供各界參考運用，如各地國小教師規劃古圳相關課程、管理處辦理在地國小圳路走讀活動等。為讓各界了解獲獎作品如何以課程推廣農田水利文化，農田水利署未來可透過與獲獎教師合作，配合各項圳路活化推廣政策共同辦理教案推廣活動，培養潛在合作推廣對象，並持續辦理教案比賽，吸引更多教師以農田水利文化為題材規劃課程，累積投稿成果，成為保存、活化與推廣農田水利文化的重要管道，讓臺灣既有的農田水利文化能夠扎根國小校園，並持續傳承到未來。

關鍵詞：古圳、文化、食農教育、活化保存、國小教育、教案、農田水利、競賽

Abstract

Irrigation canals have driven the development of Taiwan's agriculture, giving rise to a rich and fascinating agricultural water conservancy culture that encompasses ideas, systems, rituals, and customs. However, due to environmental changes, industrial and commercial development, urban expansion, and changes in living habits, irrigation canals have gradually become polluted, abandoned, or covered to meet the needs of modern communities and industries. This has weakened their connection with daily life, causing the agricultural water conservancy culture to decline as well. Therefore, protecting and passing down this culture through various forms and actions is an urgent task.

To this end, the Irrigation Agency organized the first “Ancient Canals, Agricultural Irrigation and Agri-food Education Elementary School Lesson Plan Design Competition” in 2024, inviting elementary school teachers across Taiwan to apply their expertise and creativity. The aim was to design lesson plans that guide students to learn about ancient canals and agricultural water conservancy culture, while integrating agri-food education concepts. Through localized lesson plans and professional teaching, students are encouraged from an early age to recognize and value the irrigation canals and water conservancy culture in their daily surroundings.

During the preparation phase of the first competition, the organizers reviewed the rules, guidelines, and schedules of various themed lesson plan competitions, and examined the content related to ancient canals in textbooks under the Curriculum Guidelines of 12-Year Basic Education(十二年國教課程綱要). Based on this review, they set the competition themes, procedures, scoring criteria, rules, and guideline format. Experts in agricultural irrigation and agri-food education were invited as judges, forming a review committee that evaluated 25 submissions. Five group entries and four individual entries were selected as winners, and the winning lesson plans were published on the official website of the Irrigation Agency and the Agri-food Education Information Integration Platform(食農教育資訊整合平臺). According to the collective feedback of the judges, the nine winning lesson plans skillfully integrated the three themes of ancient canals, agricultural irrigation, and agri-food education. Their designs featured four highlights—localization, interdisciplinary approach, experiential learning, and the use of diverse tools. In addition to being vivid and engaging, the lesson plans effectively promoted the features and culture of local irrigation canals, were considered feasible for practical implementation, and encouraged elementary school students to connect with and understand ancient canals from an early age.

The first-place winner in the individual category of the 2024 lesson plan competition was WU, PEI-RU(吳佩如) from Xinshe Elementary School (新社國小) in Taichung, with the lesson plan “Water of the Baileng Canal — Irrigating Fragrant Mushrooms.” (《白冷圳之水-澆灌芬芳馥郁香菇「胞」》) This plan fully combined the history of the Baileng Canal in Taichung, its irrigation facilities, and agri-food education, balancing topics such as ancient canal history, agricultural irrigation, water resources, and local specialties. Students first learn about the designer and builder of the Baileng Canal, engineer Isoda Norio(磯田謙雄), and the story of the canal, as well as its importance to the residents of Xinshe. They then use group discussions to explore methods for protecting and promoting the Baileng Canal, achieving the goal of caring for local irrigation canals. Finally, an agri-food education course focused on mushrooms, a specialty of the Baileng Canal area, is arranged, combining on-site picking and hands-on activities at local mushroom farms to help students understand the importance of the canal to mushroom cultivation, the mushroom production process, the hard work of mushroom farmers, and the value of cherishing food. The first prize in the group category was awarded to CHEN, CHING-YU(陳靜玉) and LAI, YING-HSUAN(賴盈璇) of Nangang Elementary School (南港國小) in Changhua, for their collaborative lesson plan “Water·Rice·Canal·Journey.” (《水·稻·渠·程》) This plan centers on the Babao Canal in Changhua, incorporating historical development, ancient canal culture, and unique local agricultural products. It addresses both agricultural irrigation and agri-food education goals. The teaching activities and implementation are highly feasible, with an overall design that is lively, engaging, and easy to understand, bringing the knowledge of irrigation canals into students’ daily lives. Finally, in collaboration with the local community development association, students are introduced to

traditional festive rice foods and guided to make turtle-shaped rice cakes, enabling them to learn about the importance of irrigation facilities for crop production through field visits and hands-on practice.

By organizing the lesson plan competition, the Irrigation Agency encourages elementary school teachers to design curricula that guide students to learn about the irrigation canals and agricultural water conservancy culture surrounding their campuses. The winning works are made publicly available on the Irrigation Agency's website and the FAE Information Integration Platform, serving as references for various sectors—for example, for local teachers planning ancient canal-related lessons or for management offices organizing local elementary school canal tours. To help the public understand how these winning lesson plans promote irrigation culture through education, the Irrigation Agency may collaborate with winning teachers in the future, aligning with various canal revitalization and promotion policies to jointly hold lesson plan promotion activities. This will cultivate potential partners for cooperation, and by continuing to organize lesson plan competitions, more teachers will be inspired to plan courses on agricultural irrigation culture. The accumulated submissions will become an important channel for preserving, revitalizing, and promoting this heritage, ensuring that Taiwan's agricultural irrigation culture can take root in elementary schools and continue to be passed down to future generations.

keywords: Ancient Canal 、 Culture 、 Agri-food Education 、 Revitalization and Preservation 、 Elementary Education 、 Lesson Plan 、 Agricultural Irrigation 、 Competition