



# Exploring The Connection Between University Social Responsibility And Local Sustainable Development Through Practical Teaching In Higher Education

S. S. Chen<sup>1</sup>, Y. R. Chi<sup>2</sup>, T. H. Chen<sup>3</sup>, S. W. Su<sup>4</sup>, C. S. Huang<sup>5</sup>, W. P. Sung<sup>6\*</sup>

<sup>1,2,3,4,5,6</sup> \*National Chin-Yi University of Technology

<sup>5</sup>Hsin Wu University

<sup>[1]</sup>lingchao.chen@gmail.com, <sup>[2]</sup> yirou@ncut.edu.com, <sup>[3]</sup> s911104020@gmail.com, <sup>[4]</sup> shaowen@ncut.edu.tw, <sup>[5]</sup> pacerhuang@gmail.com ,

<sup>[6]</sup> \*wps@ncut.edu.tw

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## ABSTRACT

University Social Responsibility Practice Project (USR Project) encourages universities to fulfill their social responsibilities, promote the involvement of faculty and students in assisting communities, and advocate core values such as 'talent cultivation,' 'local engagement,' and 'Sustainable Development Goals (SDGs)'. The research team chose the "Farm Heritage Museum" located in the suburban area of Taiping District, Taichung, Taiwan, as the field for University Social Responsibility (USR) practice. Firstly, we identified SDG 11 - Sustainable Cities and Communities as the overall practice goal based on the attributes and resources of the field. Considering environmental needs and social background factors, they selected 11.4 Cultural Heritage, 11.7 Public Spaces, and 11.a Urban-Rural Linkages as specific project components. The teaching model was modified to involve students with backgrounds in landscape design and cultural creativity. We participated in and executed activities such as cultural data organization, organizing cultural education, and community interaction. The purpose of this practice is to: prevent cultural loss, mitigate cultural discontinuity, revitalize the field, and promote communication and learning among teachers and students at various levels of community schools. The goal is to achieve the effect of consolidating local humanities and culture, ultimately leading to the practical aim of sustainable development of local culture. The research findings indicate that, from the perspective of educators, this study departs from the traditional classroom setting and engages with practical fieldwork involving various stakeholders, including field management units (district offices), field operators, collaborative efforts with teachers and students from different levels of schools, and community residents. The activities involve the integration of cultural perspectives, the formulation of practical strategies, the roles played by university faculty and students in promoting local sustainable development, and the instructional practices of teachers and students at different levels. It is evident that the curriculum and activity designs, grounded in the local context and integrating local culture and folk activities, resonate with participants. This approach achieves the consolidation of local awareness, the creation of collaborative action plans, and the accomplishment of feedback, thereby fulfilling the expected SDG 11 - Sustainable Cities and Communities practice goals outlined in this research.

**Keywords:** University Social Responsibility, Sustainable Development Goals, Farm Heritage Museum, Local Sustainable Development, Educational Practice Experience

## I. INTRODUCTION

Since 2017, the Ministry of Education in Taiwan has initiated the "University Social Responsibility Practice Program" (USR), encouraging universities to step beyond existing academic frameworks and engage with the community while taking on their social responsibilities [1, 2]. The aim of this program is to guide universities to prioritize human well-being, starting from local needs. By fostering humanistic care and assisting in addressing regional issues, universities are expected to fulfill their social responsibilities. The program envisions universities integrating relevant knowledge, technology, and resources as they focus on the

development needs or future visions of their regions or localities. This involves strengthening local connections, attracting talent, promoting the application and dissemination of innovative knowledge, and driving local growth dynamics [3,4]. Additionally, from 2020, the program has incorporated the 17 Sustainable Development Goals (SDGs) proposed by the United Nations in 2015 as practical initiatives [5].

The University Social Responsibility Practice Program represents the current trend in higher education, shifting from traditional knowledge-based education to actively engaging with communities as a role in assisting local development [6-8]. While universities strive to fulfill their social responsibilities, the challenge lies in balancing talent cultivation and local development, making it a key focus and issue in contemporary higher education [7-8]. In other words, practical teaching methods have become one of the main directions for future education. The challenge faced by such programs is how to integrate curriculum approaches while establishing relationships with communities, guiding students to actively participate, and achieving the dual goals of talent cultivation and local connections.

Therefore, the USR program can be seen as an approach to entering and promoting local development. Through the process of consensus building and establishing communication mechanisms, the program not only allows universities to contribute knowledge and resources to the community but also fosters students' sense of social responsibility and practical skills. Moreover, it assists in achieving sustainable goals for local and community development.

This study explores the relationship between university social responsibility and local sustainable development, focusing on the suburban farmhouse museum in Taichung City, Taiwan, as the location for University Social Responsibility (USR) practices. The overarching goal is to implement Sustainable Development Goal (SDG) 11.11, which emphasizes sustainable urban and rural development. The research team selected cultural heritage, public spaces, and urban-rural exchange as specific project components. Students with backgrounds in landscape design and cultural creativity actively participated in the project, stepping out of traditional classrooms. Under the guidance of teachers, students proposed relevant solutions based on their academic backgrounds, engaging in practical activities such as cultural data organization and hosting cultural education events for community exchange.

The research aims to prevent cultural loss, bridge cultural gaps, revitalize the site, and promote the cohesion and development of local community residents with distinctive cultural images. The study extends its impact to various educational levels and community residents, aiming to achieve the collective goal of sustainable cultural practices at the local level.

This study takes a practitioner's perspective to explore and reflect on the experiences, challenges, and prospects of university teachers in promoting practices related to local sustainable development. The engagement with various stakeholders aims to build consensus, involving collaboration with local management units (district offices), schools and students at different levels, and community members. The study combines and analyzes perspectives from these stakeholders to review practical strategies, including reflections on guiding students in the implementation of flipped teaching methods. Discussions include the necessary support and considerations for universities, such as support structures and variations, providing insights for future reference in related practices.

### **The Interplay Between University Social Responsibility And Sustainable Development**

University Social Responsibility (USR) is closely intertwined with sustainable development. USR emphasizes that universities should not only play roles in teaching and research but also take on the responsibility of serving society. Through education, research, and various forms of service, universities contribute to social development and address societal issues [9]. Sustainable development, on the other hand, underscores the need for a balance between human needs and environmental protection, aiming to ensure that this equilibrium is sustainable over time. The Sustainable Development Goals (SDGs) constitute a global action plan established by the United Nations to achieve sustainable development, aiming for a balanced and sustainable development across economic, social, and environmental dimensions. There exists a motivational and goal-oriented relationship between University Social Responsibility (USR) and the SDGs, with USR serving as a catalyst for promoting sustainable development. By integrating the principles of SDGs into teaching, research, and social engagement, universities contribute to the realization of sustainable development. Practical courses centered around SDGs can cultivate students' awareness, understanding, and participation in sustainable development, empowering them to become practitioners in the field of sustainability in the future.

Integrating University Social Responsibility (USR) with the Sustainable Development Goals (SDGs) allows universities to play a more proactive role in fulfilling social responsibilities while promoting balanced social development. The active involvement of universities can contribute to the dissemination of the principles of sustainable development, fostering consensus and partnerships that facilitate the realization of sustainable goals, ultimately achieving overall societal sustainability. Therefore, universities should not only fulfill their social responsibilities but also actively promote the practical implementation of SDGs [5, 9], thereby further advancing the cause of sustainable development in society.

### **Considering the "local" perspective for implementation**

When universities engage in practical initiatives within a local context to meet sustainable goals, it poses challenges for university teachers as implementers. From the perspective of this study, the pre-initiation phase involves approaching the situation from a "local" perspective, considering key factors such as meeting local needs, developing sustainable goals, coordinating with the local community, building consensus and collaboration, and fulfilling educational objectives.

To understand the local situation, discussions with government agencies are initiated, and the decision is made to use the local cultural museum as the base for practical implementation. In terms of the establishment and functions of the local cultural museum, its relationship with the community is inherently intertwined. It serves not only as a space for preserving, researching, and showcasing local cultural heritage but also as a platform for promoting local culture and facilitating community development. Thus, developing the site with cultural sustainability becomes a "node" platform connected to the local community. From a societal perspective, Taiwan's past emphasis on economic development, industrialization, and modernization has led to the concentration of the population in urban areas [10,11], causing stress in living conditions and the environment. This has also resulted in the loss of traditional rural culture and weakened community cohesion. Therefore, leveraging the resources and activities of the cultural museum to help local residents understand their cultural roots can enhance local identity, thereby promoting community cohesion and development [12-16].

## II. Procedure for Paper Submission

### A. Practical Experience of Farmhouse Museum Implementation

Through the practical process at the farmhouse museum, this study gradually established collaborations with the local community and elementary schools to achieve goals related to preventing cultural loss, mitigating cultural gaps, fostering community cohesion, and promoting local humanities in the context of cultural sustainability. The following are the relevant strategies, processes, and outcomes implemented in this study:

--First, Establishing a Foundation with Government Collaboration: Conducting initial local analysis, engaging in discussions with relevant government departments, and ultimately selecting the farmhouse museum as the practical base. This foundational collaboration laid the groundwork for the implementation.

--Second, Community Collaboration for Enhanced Community Cohesion: Engaging in in-depth collaboration with the community, utilizing the resources and activities of the museum to increase local residents' awareness of their cultural heritage, strengthening local identity, and consequently fostering community cohesion.

--Third, Educational Collaboration with local Schools: Establishing collaborative partnerships with local schools, conducting practical courses, guiding students to actively participate, and enhancing their awareness and participation in sustainable development.

--Fourth, Promoting Local Humanities Development: Utilizing the cultural resources and activities of the farmhouse museum to promote the development of local humanities, mitigating cultural gaps, and ensuring the continuity of local culture.

--Fifth, Monitoring and Evaluation: Regularly monitoring and evaluating the implementation process to ensure the effective achievement of set goals, adjusting strategies promptly to enhance the effectiveness of the practical initiatives.

Through these strategies and practical processes, this study aims to achieve cultural sustainability goals while promoting community cohesion and development in the local context.

### B. Implementation Strategies and Activity Design

In terms of implementation strategies, a mentorship-based small group approach is adopted to prevent challenges arising from large student numbers, ensuring that each student receives adequate attention and accommodating varying levels of student engagement. Through this method, teachers can provide direct guidance to students in carrying out practical tasks while adhering to the principle of student autonomy. Additionally, this approach fosters increased interaction and communication between teachers and students, deepening mutual trust and cooperation, thereby establishing the foundation for long-term collaborative efforts.

Regarding the design of the execution content, discussions with government authorities were initially conducted to determine the overall direction focused on local culture. Following this, with reference to specific targets within SDG 11 Sustainable Cities and Communities, such as 11.4 Cultural Heritage, 11.7 Public Spaces, and 11.a Urban-Rural Linkages, these themes were chosen for the curriculum, listed in **Error! Reference source not found.** Subsequently, relevant courses and corresponding practical activities were arranged in alignment with these themes.

**TABLE I: CORRESPONDENCE BETWEEN PRACTICAL OBJECTIVES AND SDG GOALS**

SDG Goals	Practical Objectives
SDG 11.4: Sustainable Cities and Communities - Ensure the preservation of cultural and natural heritage	Preservation of Cultural Heritage: The collection of artifacts from the past century in this site serves as a reflection of Taiwan's modern development history. It can be utilized as content for local cultural education, providing the next generation with an opportunity to understand Taiwanese culture and preventing the occurrence of cultural gaps. This fulfills the significance of SDG 11.4: Cultural Heritage.
SDG 11.a: Sustainable Cities and Communities - Support positive economic, social, and environmental links between urban, peri-urban, and rural areas	Cultural Education: By assisting the site in developing cultural content, it aims to elevate the site into a focal point for urban-rural exchanges in the local area. The goal is to transform the site into a cultural exchange center that combines cultural display and experiential activities, promoting connections and interactions between urban, suburban, and rural areas.
SDG 11.7: Sustainable Cities and Communities - Provide universal access to safe, inclusive, and accessible green and public spaces	Local Humanities: Due to the site and its surrounding area, which includes substantial green park space, utilizing the integration of cultural content with public spaces. Through organizing activities and engaging in interactions with the local community, it satisfies the promotion of public space utilization.

Specific Content: Conducting Cultural Documentation Work: Site observation, literature review, correlation between artifacts and historical periods, and recording of interviews.

Specific Content: Cultural Education and Experience - Organizing activities for children to experience traditional farm play at the ancient farmhouse.

Specific Content:  
 Organizing Community Discussions: Hosting storytelling events under the big tree.  
 Conducting Local Cultural Education Activities: Arranging a student storytelling competition.

**TABLE II: OVERALL FRAMEWORK FOR THE IMPLEMENTATION OF USR PRACTICE COURSES**

SDG Goals	Practical Objectives
Course Title: University Social Responsibility (USR) Practice Program Framework	The first year Community Cultural Digital Archiving
Participating Students	The second year (1) Community Museum Management and Cultural Promotion (2) Cultural Promotion and Experiential Teaching
Collaboration Partners	University juniors and seniors from our institution Schools: Elementary and junior high school students Local: Community residents Government: Taiping District Office
Field Scope	Farmhouse Museum
Practical Field	Public Local Cultural Museum
Social Practice Model	Activity-based Practice
Project Execution Steps	Aligning with SDGs as the practice goals Site visits and needs assessment Problem analysis and practice planning Proposal design Proposal execution
Types of Course	Site interviews and cultural documentation
Outcomes	Activity project management Recommendations for museum operation
Course Outcomes	Addressing Local Needs Developing Cultural Education

The comprehensive framework for the implementation of related courses is outlined in Table III

### C. Practical Experience

#### 1. The First-Year Course - Community Cultural Digital Archiving

The course focused on the cultural content of the site, conducting related documentation work through site observation, literature review, correlation between artifacts and historical periods, and recording of interviews. This served as the initial interaction between students and the site. During the course discussions, relevant concepts of SDGs were explained, guiding students to integrate SDG practices into the planning of practical content. The following are the outcomes of this course:

##### (1) Site Observation and Documentation

Through visits and interactions with site volunteers and the curator, the course involved observing the architectural features of the site to understand its cultural characteristics and social interactions. The artifacts collected at the site were gathered over time by local residents and later donated to the government for cultural promotion and heritage purposes. The current site, with its exterior presenting a blend of Minnan and Hakka elements in a three-courtyard structure, primarily showcases the agricultural era of Taiwan. The exhibits inside the museum predominantly feature everyday items from the past century in Taiwan.

##### (2) Cataloging Artifacts and Historical Context

From the perspective of cultural sustainability, in addition to presenting tangible cultural elements, enriching the cultural content of the site through the organization and integration of intangible elements such as historical records and cultural aspects is essential. This serves as the foundation for sustainable practices in cultural revitalization, experiential teaching, and other aspects of site development. Through the collection and organization of literature, the artifacts in the collection are subjected to content analysis, historical context assessment, and other related activities, as shown in Fig. 1-3. This comprehensive documentation of the site's cultural content serves as the basis for subsequent practical initiatives.

表 1. 館藏物品用途功能與時代意義

Background	Description	Representative Collections of the Era		
清領時期 (1750s)	<p>太平最早開發紀錄，從為清領時期開始，到了清朝後期大量移民遷居開墾，逐漸形成閩客混居之居住環境。由於是當時清朝移民渡台，所以仍延續家鄉之生活方式，在生產方面則是以人力、獸力等為主要，農作種植上，則以種植樟腦、香茅及樹薯等主要作物。在時代文物選擇上，我們以傳統獸力與農作、糧食保存相關之物品為主，本研究選定牛車、穀倉、鹹菜桶、風鼓傳統手耕農作及糧食保存相關為主。</p> <p>維目前館藏文物多為近期 60 年間收藏，且該時期物品多已損毀，因此館中所蒐集多為後期製作之產品，研究團隊透過文獻資料對照方式，找尋符合相應背景之館藏物品作為呈現。</p>	 <p>牛車</p>	<p>在過去農業時代當中，常以耕牛為主要耕作生產，為方便驅使牛隻，因此產生出相關物品，如：用於發出鈴聲警示用途的牛鈴、連結牛車或犁的牛軛，用以載運農作或運輸用途的牛車等。[32]</p>	
		 <p>牛鈴</p>		
		 <p>牛嘴籠</p>		
		 <p>穀倉</p>		<p>穀倉又名糧倉，是一種農業建築物，主要用於儲存農作物之用，同時也作為各項農作加工之暫存用途，如脫粒。[32]</p>
		 <p>鹹菜桶</p>		<p>過去農業時代，沒有冷藏設備，為了保存食物，通常採用醃製、暴曬等各種方法進行保存。由於台灣氣候悶熱潮濕，為了能保存食物，常透過醃製方式作為保存食物方法。左圖可進行大量醃製的鹹菜桶也因此應運而生。 [32]</p>
		 <p>風鼓</p>	<p>為早期農業時代使用之木製農具，將曬乾後的穀子藉由風鼓內葉片的轉動，將穀殼以及塵土等雜質扇除，以便取得乾淨的穀粒，之後隨著時代變化逐漸發展出金屬材質之電動打穀機。[32]</p>	

FIG. 1. COMPILATION OF COLLECTION ITEMS (1)

Background	Description	Representative Collections of the Era
日治時期 (1890s)	<p>因馬關條約簽訂，台灣開始進入日治殖民時期，當時台灣經濟與生產，多以滿足殖民母國所需為主。當時日本帝國已完成工業化革新，開始引進工業化產品。在農作方面除樹薯、甘藷、香蕉等適合當地之作物外，另有甘蔗、香茅等經濟價值較高作物。</p> <p>同時時為方便運輸農作經濟產物，因此以鐵道運輸為主要交通(五分車、手壓台車)方式。在時代文物選擇上，研究團隊則以工業革命後之日治時期館藏物品為主。</p>	 <p>運輸人力之手壓台車[33]</p>
		 <p>三輪車</p>
		 <p>自行車</p>
	 <p>手搖式磁石電話機</p>	<p>為 1895 年日治時期引進之交通工具，同時為工業時代之產物，為常見之交通運輸工具。[32]</p>
	 <p>腳踏式縫紉機</p>	<p>1930 年代在台灣出現之手搖式磁石電話，其外觀最主要特徵為一個手搖把，打電話時需先轉動手搖把數圈，以帶動電話機內的磁石發電機發電，好讓由人工操作的交換機得以振鈴，這樣按線生才知道有客戶要打電話，接通後則利用電話機內自備的電池電源。[32]</p> <p>臺灣於日本時代引進縫紉機，據查詢早在 1911 (明治 44) 年之前台灣即開始進行販售，受到當時被殖民與主權歡迎，其後縫紉機也與電燈、電扇、收音機、電話等列為現代化家庭之標準設備之一。至 1920-1930 年代以後，隨著洋服之普及與和服之式微，縫紉機有逐漸取代手工製作衣服之趨勢。[32]</p>
 <p>手搖式空襲警報器</p>	<p>金屬製的小型手搖式警報器，是第二次世界大戰時即臺灣居民防空襲的歷史文物，只要聯軍飛機空襲，各處警報聲即響，所有人就近尋找防空洞躲避。這種警報器器身靈巧，卻能發出極大鳴響，通常會固定在木製矮凳</p>	

FIG. 2. COMPILATION OF COLLECTION ITEMS (2)

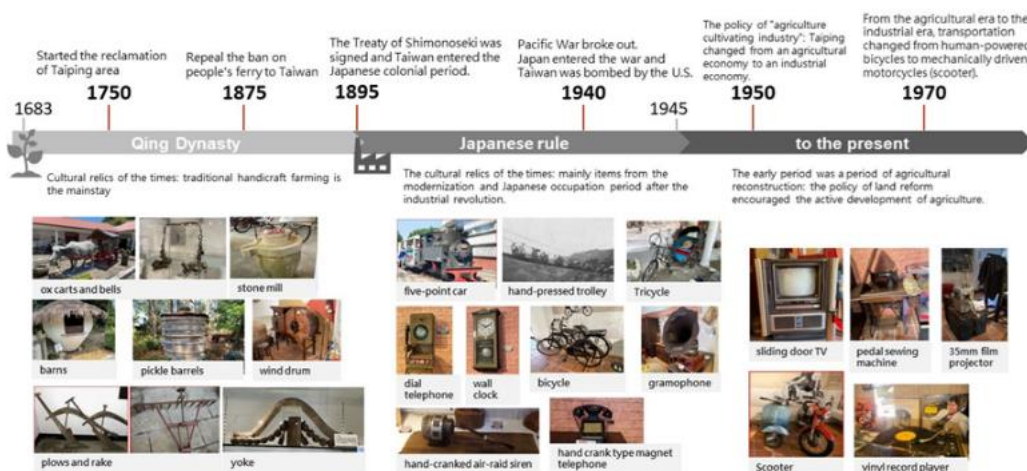


FIG. 3. COMPARISON OF COLLECTION ITEMS WITH HISTORICAL PERIODS

(3) Curator Interview and Cultural Forum: Storytelling Under the Ancient Tree  
 Upon understanding that the curator has experienced the period from the Japanese colonial era to the present,

and considering the wealth of knowledge gained, an interview was conducted and recorded. The subsequent plan involves producing a podcast program. Then, The event, the first practical activity, was conducted in collaboration with the management unit, Taiping District Office. The event took place under a 400-year-old camphor tree in the community, and it was called "Storytelling Under the Ancient Tree." The curator and volunteers served as storytellers, using the museum's collection items as the theme to narrate cultural stories of different eras. This event served as a platform for interaction with the community. Simultaneously, participating students documented the event and compiled handbooks.

## **2.The Second-Year Course - Community Museum Management and Cultural Promotion, Cultural Promotion, and Experiential Teaching**

To strengthen the connection between the local cultural museum and local resources, showcase the unique features of local culture, and empower the site to promote its own culture and fulfill educational functions. The team collaborated with the Ancient Farmhouse Museum and Taiping District Office to organize a series of events called "Cultural Day at the Farmhouse." This series included activities such as experiencing traditional childhood games and participating in a storytelling competition. Local junior high and elementary school students were invited to participate in these events, aiming to achieve cultural education rooted in the community and alleviate cultural fragmentation.

### **(1) Experiential Teaching 1 - Traditional Childhood Games Experience:**

Assisting the site in developing cultural experiential teaching, this activity focused on experiencing Taiwan's local culture and traditional childhood games. Through diverse methods such as displays, hands-on experiences, and play, students were able to immerse themselves in traditional life experiences and culture, achieving the goals of promoting local culture and serving educational purposes.

### **(2) Experiential Teaching 2 – Student's Storytelling Competition:**

With the same objective of promoting local culture and serving educational purposes, this activity involved collaboration with schools to organize a storytelling competition. The themes of the stories could revolve around cultural anecdotes from the site or Taiwan's indigenous culture. This allowed children to deepen their impressions of traditional culture while cultivating their oral storytelling and expressive abilities during the preparation process.

## **RESULTS AND REFLECTIONS OF PRACTICES**

In the first year of the project, through community cultural digitization and storytelling events under the old tree, we successfully promoted the preservation and dissemination of local culture. The organization and comparison of artifacts with their historical context enhanced our understanding of the local history. The interview with the curator provided valuable oral history data. These practical activities not only enriched the content of the community culture but also brought residents closer to the university, establishing a solid foundation for community collaboration.

In the second year, during the course on community museum management and cultural promotion, we organized a series of events related to the cultural heritage of the old farm, including traditional play experiences and storytelling competitions. Through these activities, we effectively achieved the educational goal of promoting local culture, providing students with a deeper understanding of traditional practices, and sparking their interest in local history. These practical initiatives strengthened the interaction between students and the community, fostering students' expressive abilities and cultural awareness.

The relevant discussions are as follows:

### **Harmonizing Diverse Perspectives:**

In the process of engaging with various stakeholders, the research team identified differing viewpoints and perspectives. For instance, the site management sought to enhance the site's visibility and attractiveness through the practical implementation at the Ancient Farm Museum, while community residents were more concerned about the practicality of activities and their impact on the community. These differences provided valuable insights for the research team, emphasizing the need to consider diverse needs and expectations when planning activities and establish effective communication mechanisms to ensure meaningful participation and impact from all stakeholders.

### **Supplementing Cultural Deficiencies through Music:**

During the cultural analysis, the team observed challenges in systematically presenting contemporary cultural content due to factors such as the temporal span and diverse nature of the collected artifacts. Additionally, the predominant static display in the site's exhibitions posed limitations for experiential learning. Inspired by the collection of vintage radios in the exhibit, the research team proposed using music as a means to address these challenges. Integrating music with cultural elements and the site creates a more culturally engaging atmosphere, enhancing the overall appeal for visitors.

### **Sustainable Development through Sonic Landscapes in the Community:**

From the perspective of practical implementation, the research team discovered distinctive landscape features in both the site and its surrounding environment. By involving the community in various activities related to sonic landscapes, such as sound environment surveys, musical arts events, and music composition experiences,

the community's awareness and understanding of the local environment and culture can be elevated. This approach fosters community participation and a sense of place, contributing to sustainable community development.

**Need for Promoting Sustainable Concepts:**

The research team identified a lack of in-depth understanding of Sustainable Development Goals (SDGs) among collaborators, highlighting the necessity for further promotion. Additionally, during the practical implementation, consideration should be given to integrating SDG concepts and establishing autonomous sustainable mechanisms to ensure the continuity of practical outcomes. Future research could focus on establishing sustainable mechanisms during the implementation process to ensure the persistence of SDG practices.

**Lack of Sustainability in Unitary Practices:**

Implementing SDGs requires continuous effort and action rather than conducting isolated activities within a specific timeframe. To ensure the sustainability of practices, coherent measures need to be adopted, taking into account the possibilities for future development throughout the activities.

## CONCLUSIONS

This research yields the following conclusions and recommendations:

**Practicing from a "Local" Perspective**

Considering sustainability from a local perspective, universities can deepen their connections with the local community. By engaging in communication with various local stakeholders, understanding local needs and issues, universities can provide better practical and learning opportunities for students. The process of university engagement with the local community is mutually beneficial, holding significance for the university, local government, businesses, and residents. Before initiating local practices, establish partnerships with local stakeholders to jointly determine practice goals and methods. Respect local culture and traditions, create a platform for sharing knowledge and experiences, and effectively implement sustainable practices.

Empowering the site with sustainable functions through the practical process involves the active participation of local residents and university faculty and students. The collaborative and understanding nature of this process allows students to explore the local culture, history, and lifestyle through practical activities, fostering interactive exchanges with the local community. Simultaneously, university faculty and students should emphasize contributing to the sustainable development of the local community by providing valuable feedback. This research suggests that integrating practical activities with curriculum implementation is an initial action plan. Universities should delve deeper into contemplating how to integrate with the local community. Through a collaborative development approach, a mutual sustainable development can be achieved.

**Practice Mode Recommendations**

Based on the summarized results of the practices, this research suggests three main conceptual stages for implementation: Consciousness Cohesion, Action Plans, and Achievement Feedback. Firstly, Consciousness Cohesion involves various means to raise awareness and understanding of SDGs, forming a consensus and support for SDGs. Secondly, Action Plans refer to translating SDGs goals into specific action plans and projects to achieve the practical realization of SDGs goals. Lastly, Achievement Feedback involves evaluating the outcomes of practicing SDGs, further refining the goals and action plans.

Simultaneously, incorporating the concept of SDGs into the curriculum content involves the following recommendations:

(a) Designing SDG-related thematic content: This includes background information, goals, key points, and action plans of SDGs. It aims to help students understand the significance and value of SDGs and their impact on contemporary society.

(b) Encouraging practical engagement: Students can be encouraged to combine resources from the community and sites for field visits, community surveys, and social practices. This allows them to understand the application and practical scenarios of SDGs in the local context.

(c) Guiding students to design and implement SDG projects: In this step, students are directed to design and execute SDG projects, continuously learning and reflecting throughout the practical process to enhance their awareness and understanding.

(d) Designing assessment mechanisms: Implementing assessment methods to evaluate students' learning outcomes and the effectiveness of their practical efforts. This could involve designing relevant course evaluation questionnaires, reports, etc., to help students further develop their capabilities and growth.

**Changes in Teaching Methods for Instructors**

In the process, instructors play a crucial role in integrating technical knowledge, practical purposes, and concepts and values of SDGs. They assist students in experiencing and mastering the values and practices of SDGs. Simultaneously, instructors need to be mindful of individual differences and needs, providing different guidance and assistance to ensure that every student can participate in the practical activities of the course.

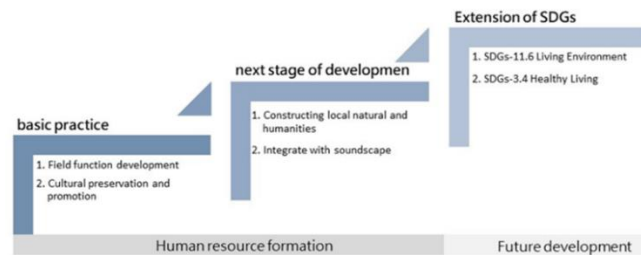
Throughout the entire practical process, the level of instructor intervention has a significant impact on students' learning and practice. The higher the level of intervention, the stronger students' understanding and practical abilities in SDGs will be. This is especially evident in the initial stages of the course when students are



guided to work in teams. In practice, due to issues such as communication or emotional challenges among team members, enthusiasm may decrease. In such cases, instructors need to intervene appropriately, acting as "consultants" or "coaches" to guide students. Based on the experience of this research, this is a common occurrence in practical teaching.

Using Achievements as the Foundation for Subsequent Practices

Through the dynamic activation of the site, this practice has gradually established connections with local elementary schools and communities. By fostering collaboration, it aims to develop the local cultural environment. The research team has identified that, based on the current stage, the practice can serve as a foundation. The focus can shift from the site to gradually expanding connections with the surrounding natural environment. Additionally, this research introduces the concept of "soundscapes" to integrate local culture with the natural landscape. This approach enhances the natural and cultural environment of the area, aligning with specific goals such as SDG 3.4 for a healthy lifestyle and SDG 11.6 for a sustainable living environment, shown in Fig. 4.



**FIG. 4. COMPARISON OF COLLECTION ITEMS WITH HISTORICAL PERIODS**

Potential for Subsequent Development in this Research

The current research holds promising potential for further development. It has successfully laid the groundwork for fostering connections between educational institutions, local communities, and cultural heritage sites. As a next step, the research can explore expanding these connections to a broader geographical area or forming partnerships with additional stakeholders.

Moreover, the incorporation of the "soundscapes" concept provides an innovative approach to enhancing the local cultural and natural environment. Future developments could explore the application of this concept in other contexts or regions, potentially contributing to the broader field of sustainable development.

Continued collaboration with local schools, governmental bodies, and community organizations is crucial for sustaining and expanding the impact of the research. Building on the achievements of the current study, there is the potential to develop more comprehensive and integrated initiatives that align with the principles of sustainable development, further contributing to positive outcomes for both the academic institution and the local community.

## 2. Recommendations

In terms of how universities can support educators, this research suggests the following based on experience:

### Enhance Training and Support for Teachers

Universities should strengthen training and support for teachers in the context of local sustainable practices. Providing relevant resources and funding can facilitate the effective integration of sustainable development principles into teaching practices.

### Actively Collaborate with Local Communities

Universities should actively engage in collaborations with local communities, working together to advance local sustainable development. This collaboration can involve joint initiatives, projects, or programs that contribute to the well-being and sustainability of the local area.

### Integrate Curriculum with Community Service

Educators should strive to integrate curriculum and community service, allowing students to connect more closely with local experiences. Building strong relationships with community partners can enhance community involvement and foster a sense of shared responsibility for sustainable development.

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## References

- [1] Y. H. Guo et al. "Spring Sprouts: The Emergence and Growth of University Social Participation: Practice and Accumulation." Tainan. 2019, Ministry of Education University Social Responsibility Promotion Center.

- [2] R. E. Li, "On How Higher Education Practices SDGs." *Taiwan Education Review Monthly*, Vol. 11, No. 10, 2022, pp.163-177.
- [3] The official website of the United Nations Millennium Development Goals (MDGs). (We Can End Poverty, Millennium development goals and beyond 2015) : <https://www.un.org/millenniumgoals/bkgd.shtml>
- [4] Ministry of Education, Taiwan, Implementation Status of the University Social Responsibility (USR) Program, 2019. <https://www.ey.gov.tw/Page/448DE008087A1971/c1cd8b0e-c129-4fa8-a887-7ee3d68c5e93>.
- [5] Think the Earth, "SDGs: The Future We Want." Kaohsiung. Taiwan Environmental Education Association Publishing, 2020.
- [6] P. Bennenworth and W. J. Ben, "Who matters to universities? A stakeholder perspective on humanities, arts and social sciences valorisation." *Higher education* 59.5, 2010, pp. 567-588.
- [7] A. Wigmore-Álvarez and R. L. Mercedes, "University social responsibility (USR) in the global context: An overview of literature." *Business and Professional Ethics Journal* 31.3/4, 2012, pp. 475-498.
- [8] A. H. B. Abila, "Universities' Social Responsibility (USR) and Sustainable Development: A Conceptual Framework", *SSRG International Journal of Economics and Management Studies*, Vol. 4, No. 12, 2017.
- [9] J. C. Arcesio, Z. Lorenzo, L. Julieth, D. Alexander Daza, "USR as a Tool for Meeting the SDGs: A Systematic Review", *IEEE REVISTA IBEROAMERICANA DE TECNOLOGIAS DEL APRENDIZAJE*, Vol. 17, No.1,2022, pp. 48-55.
- [10] [Y. W. Chang, J. H. Wang, "Urbanization and regional development, out of order", *Agglomerate Taiwan Vitality*, 2005, pp. 101-123, (in Chinese)
- [11] C. P. Tung, "Impacts of Taiwan's Demographic Structure Change on Housing Prices," 2018, Master thesis of National Taiwan University, pp. 1-51. (in Chinese)
- [12] W. C. Shih, *Taiwanese planning law : a historical review and comparison with Hong Kong*. 2019, [Ph. D., Thesis] Birkbeck, University of London.
- [13] M. Raco, R. Imrie, W. I. Lin, "Community Governance, Critical Cosmopolitanism and Urban Change: Observations from Taipei, Taiwan," *International Journal of Urban and Regional Research*, 2011, Vol. 35, No.2, pp. 274 – 294.
- [14] C. H. Tung, K. T. Tsai, "Does Globalization Expand the Crisis and the Phenomenon of Quartered Cities? A Case Study of Taiwan, Taiwan," *International Studies Quarterly*. 2014, Vol. 10, No. 4, pp. 103-120.
- [15] H. H. Hung, *Globalization process of the local city Taichung-survey on local involvement in community planning*, 2011, Master Theses, Nan-Hua University, Taiwan.
- [16] S. C. Su, "'SDGs and University Social Responsibility: Opportunities for Implementing Interdisciplinary Learning and Research," *Student Affairs and Counseling*, 2020, Vol. 58, No. 4, pp. 1-7.(in Chinese)

**Wen-Pei Sung** is currently a Lifetime Distinguished Professor. He previously served as the Dean of Academic Affairs at the College of Humanities and Creativities and as the Department Chair at the National Chin-Yi University of Technology. He is a member of the Accreditation Council, Ministry of Education, and a committee member of the Public Construction Commission. He has been recognized as a Diplomate in Water Resources Engineering by the American Academy of Water Resources Engineers and elected as a Board-Certified Environmental Engineer by the American Academy of Environmental Engineers and Scientists. Additionally, he is a Fellow of the Institution of Engineering and Technology (IET) in the UK.

Dr. Sung's expertise lies in Vocational Education, Structural Engineering, Environmental Engineering, and Civil Engineering. He has extensive experience in Structural Dynamics, Structural Analysis, Earthquake Engineering, Dynamic Analysis, Structural Vibration, Finite Element Analysis, and Structural Health Monitoring. His research interests also encompass Environmental Engineering, Water Resources, Construction Materials, and Environmental Impact Assessment.

Wen-Pei Sung is a member of several professional societies other than the IEEE, including the American Academy of Water Resources Engineers and the American Academy of Environmental Engineers and Scientists.

He has received numerous awards and recognitions for his contributions to engineering and education. Additionally, he has served on various committees and contributed to publications within the IEEE community.