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Localized Innovation of Knowledge Community: Creation of local knowledge and learning landscape

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Abstract

In recent years, we can see the development of social learning groups among Taiwanese communities, for example, the Taiwan Field School which co-operate with students and residents in southern Taiwan. Through these three patterns: digging local knowledge, practicing local wisdom, and transferring local experiences, from different action modes to connect local communities as well as from the local knowledge of formatting the power of action, and then the communities and spaces are changed which operates a learning-based innovative industry model. Based on experience research, the researcher conducted content analysis from Daxi Field School and Taiwan Field School. The researcher also interviewed practitioners, educators, and participants to explore the correlation among the creation of learning landscape, the establishment of the knowledge system, and knowledge communities. It facilitates the establishment and re-creation of local identity of practitioners and presents the educational influence on local development. We analysis the education system, that there is the interaction between the body, space, and network in the community. The findings of this research suggest the "internal gaze" that creating innovative potential among community actors and forming a new model of community participation.

Keywords: learning landscape, local knowledge, Legitimate peripheral participation.

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1.0 Introduction

In the Internet age, the world is connected through the use of educational media or network resources. Temporal and spatial limitations in a rural area can be overcome by flow of information over a network. With the trends of globalization, sustainable development, and glocalization in time and space, the development of different industries is made possible in rural areas. Exhibiting the culture of a community brings life closer to the land, thereby attracting more tourists through sharing of online information combined with the growing value of slow tourism.

Rural space is not managed only concerning daily living. In recent years, activities of local cultural industries have overcome reservations about space and have promoted residents to identify with their community culture and participate in space-related works, which has given rise to a new mode of urban-rural production. For example, elderly locals in the Xishu District of Tainan created a cultural creative brand in which daily industrial elements are converted into novel cultural creative goods, such as bags shaped like heads of cabbage or fish. Following online and media reports, the fishing village of Xishu quickly gained in popularity, which in turn boosted the industries of the local community and re-presented it as a historical space. As a resident said,

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"We must not only prove that a rural town like ours can create a cultural and creative market, but also let the world see our sense of humor." (United Daily News, 2015/11/16).



Figure 1. Using creative products to demonstrate the daily life at Xishu Community
(Source: United Daily News, 2015/11/16)

In a postmodern society, topics narrated from different perspectives have emerged in community settings. For example, David Harvey (1990) proposed the concept of time-space compression, which indicates that rural areas have broken free from spatial constraints, and introduced new groups and ideas, indicating that developing local knowledge in the internet society bring what opportunities in the communities?

The circulation of messages and information breaks the spatial limit. Rural areas that have traditions and localness open up the opportunities for innovation in local industries. Along with the trend of returning or going into rural areas, local knowledge and local identity are where the connection between people and environment starts.

1.2 The relationship between education and community

This innovative energy which mainly comes from young and middle-aged people has also begun to be emphasized in education. From the formal education system, the teaching content and the teaching space at schools, and the emphasis on learning and practice, teachers not only teach knowledge found in the textbooks but also began to undertake the tasks of teaching and practice. The power of practice gradually became a part of teachers' abilities.

Based on the theory of the Legitimate Peripheral Participation Learning Landscape by Lave J. and Wenger E. (1991), situated learning is a framework of participation rather than a process of personal thinking. A community-based learning curriculum enables students to increase not just their internal construct; it increases learners' role in community involvement and practice to encourage learning.

In "legitimate peripheral participation" the tacit knowledge implied in people's mode of action and emotional processing is applied when interacting with people and in a situation; the complexity and usability of tacit knowledge both increase as the practitioner becomes more experienced.

Schools in Taiwan have begun establishing a community-learning curriculum. This was prominent in 1996 when a native education curriculum was introduced, and in 2010 when the Environmental Education Act was enforced. Community-based education not only involves cognitive obtaining of knowledge but also entails reflection of self-valuing in real-life settings to establish a relationship between the self and others. Relationships in an overall environment inevitably require actions to be taken. Education is a social activity, and society is an educational setting.

Zeng-Zhong Gao (1998) proposed the educational value of community development: "*Community development will be integrated with local customs and culture and promoted through native education; therefore, community development is the best teaching material for native education.*"

Community development has an interactive relationship with educational activities. Community environment provides lively teaching materials for native education. Native education activities boost local identity among local teachers, students, and the general public and thereby promote community development.

Education in the community contributes to postmodern local development at the following three dimensions:

1. Shedding light on local knowledge: Interviews with local community residents and survey results are produced during the curriculum design stage. These results are documented, which contribute to building local knowledge from diverse entities.
2. Realizing local intelligence: Local intelligence is embodied through not only the objects itself, but also the contexts and interpersonal ties formed from investigations and experiences relating to traditional culture, cultural assets, and buildings.
3. Learning from local experience: When interacting with elderly adults in the community, students learn not only knowledge but also intangible assets, such as the attitudes toward life and experiences of these adults.

2.1 Learning design based on anthropological perspectives: Field School Community Program

The perspective of a "field" in anthropological studies was adopted to examine how a community acts as a "field" for knowledge exploration. There are two field school community programs in Taiwan: Daxi Field School in Northern Taiwan, and Taiwan Field School in Southern Taiwan. Interviews were conducted, and both programs were compared in this study. The two programs are briefly described below.

1. Daxi Field School

Daxi Field School is a community curriculum which was established in 2015 by the Daxi Wood Art Ecomuseum. With over two decades of history, Daxi District is filled with traces of different times, from industrial development to customs, traditions, dietary habits, spatial trajectories, and cultural relics. To uncover the life and culture of Daxi, the Daxi Field School program recruits seed surveyors from the community and has these surveyors situate themselves as closely as possible to the everyday activities of Daxi (e.g., dining culture and rituals) to observe the family cultures of Daxi and collect life stories through talks, day schools, gaming, and sharing, and collectively discover the history of life in this two-hundred-year-old district. Through collaboration with students of Zhishan High School, these stories are made into films to narrate the stories through images, thereby enabling students and the community to learn and co-create the field stories of Daxi.

The Daxi Field School program organizes field resources through training and workshops, so that common cultural resources are converted into visual exhibitions, which bestow greater heritage value to these resources to promote everyday activities in Daxi and promulgate the principles of the Daxi Wood Art Ecomuseum.

2. Taiwan Field School

Taiwan Field School is a community program established in 2006 by a group of scholars and experts in architecture, community development, anthropology, and art. The objective of this program was to use the environments of Taiwan as a learning base, integrate gatherings and exchange meetings regularly held by local community groups every year, and accumulate all types of field potentials. After that, in 2012, the program began hosting teaching activities and organizing learning courses in communities across Taiwan to enable others to understand the local areas in depth through designed courses.

Meanwhile, a business entity, Baiwu Company, also started undertaking community development projects in its dismantling of community buildings to identify aspects involving low skills and strenuous labor. Community members are given a chance to participate in observational learning activities, which can enhance emotional relationships among people through physical labor. Currently, teaching sites are concentrated in Chiayi. The company has also established a Taiwan Field Factory in Chiayi Old Prison and cooperated with neighboring colleges and universities to integrate the creativity of young adults to rebuild idle spaces in the community.

2.2 Building an action-based knowledge system

The interaction between a place and identity shows that a place has individual, social, and cultural meanings, which provides a significant framework on which identity can be established, maintained, and transformed (Ying-Tang Wang, 2009). Local identity is built upon people's perception and understanding of a local place. In particular, individual "knowledge-based situation" influences the ability to understand a place; in other words, local identity is established through the identity and difference of local perception.

The definition of knowledge in the Oxford English Dictionary is that which is characterized by "facts or truth acquired in thought or perceived by a person (including intuitively)" (Ding-Ming Lai et al., 2007).

Facing the land and fields in Taiwan...is an action taken after facing the true problem. It is a continuous collective action. In the curriculum this year, we will face problems with residents, work with them, and foster emotional and ethical relationships through collective efforts. Next year, we will have a group of young adults in the field who know how to gain knowledge from actions (B-1).

It is difficult to cover facts and truth in learning at school. Knowledge must be perceived and acquired through real-life experiences to satisfy a person's need for knowledge expansion.

We can learn more from workshops than from books (A-1, Student Y).

Phronesis is a characteristic of tacit knowledge. Phronesis stresses experience, because a subject varies, which also constitutes characteristic distinguishing phronesis from applied science and technology (Han-ding Hung, 1998).

In his book *Making Community Work*, Hung-Renn Yang observes the social constructs of the "black pearl (Semarang-rose apple)" technology in the Linbien Township of Pingtung. Restructuring of a community environment is governed by the knowledge built from technological development and physical experience, the role of local masters, and apprenticeship established in the process of "black pearl" technology, and not by the more common expert-governed system. Because different organizations have taken part in restructuring the community and shared the outcomes of this process, the positive atmosphere resulting thereof reflects a process by which a community is built through translation among different entities. Yang adopted Latour's concept of translation in explaining the driving mechanism of community development in Taiwan, and also proposed two amendments to Latour's translation concept (Hung-Renn Yang, 2014, p. 17-19):

(a) that one-way translation is a two-way process, forming a translation state of two types of knowledge and interest (local knowledge and expert knowledge); and (b) that the pattern of translation does not only involve a translation of knowledge but also translation of public imaginations.

Taiwan Field School emphasizes the importance of learning through labor. The school is built on land, and knowledge is acquired on the field; therefore, only through labor and farming can we harvest the fruits of true knowledge that taste as sweet as hope and romanticism and as salty as the sweat from laboring in the process (B-1).

The professional context in community development is also a mutual learning process, in which expert knowledge is integrated with local knowledge, and thereby generating new local knowledge. People's experience and description of geological phenomenon is geology (knowledge) as is their imagination and description of space (awareness). The empowerment of thinking about community planning from local knowledge to local awareness is a series of translation, in which experts and local knowledge creators learn from each other and translate their experiences to establish local characteristics and take action.

2.3 Knowledge-based community relationships

Let everyone get a feel for this environment, and then work together to change that space (A-1).

Heterogeneous local movement as a catalyst encourages more participants to join a farming community network and engage in farming activities together with the community. Compton and McClusky (1980) proposed that community engagement is the optimal learning and educational opportunity for individuals and the community because engagement elicits proactive behavior, the feeling of being in control, and a sense of a commitment and responsibility to others. Engagement changes a person, which in turn brings about change in the community (Zhen-chun Lin, 1999). Community engagement is a type of learning and a media through which a person interacts and communicates with a group.

Local knowledge encompasses a considerable amount of tacit knowledge, and it provides insights for us into the limited and incomplete interpretations of local knowledge. Building local knowledge is a dynamic process. In Latour's "translation" of knowledge building, Latour mentions "harder facts and facts," suggesting that knowledge is a cluster and accumulation of facts. Facts are not properly situated in the first attempt. Knowledge builders must recruit more people in order to turn judgment into a black box operation to continuously participate in the fact-building process; however, this judgment is only promulgated when every participant in the process is controlled.

What youngsters have upon returning to a settlement with which they are vaguely familiar is the power of youth and the vitality they bring to labor-based activities; despite their poor organizational ability, they are able to work hard in completing the tasks assigned by their supervisors (A-2).

Hung-Renn Yang (2005) analyzed the primary mechanisms of making community work: three dimensions, which include mode of action in implementation, translational interface for implementation, and from sharing to trust:

1. Mode of action in implementation: The technical skills and physical implementation of local masters bring about stability, simplicity, and practicality in environmental reconstructions, as well as local aesthetic effects. Several potential actors are called upon through demonstration of implementation sites and discussion among passersby. Local communication bridges the gap between truth and expertise.

2. Translational interface for implementation: An expert panel is introduced to participate in community blueprinting. Between professional action groups and community organizations, the fundamental interface of translation is the mechanism of "implementation," which refers to an "implementation-oriented" proposal that draws on the experts' understanding of local practices and traditions and local knowledge.

3. From sharing to trust: In addition to resource sharing among community organizations, rebuilding trust through outcome sharing enables actors to intangibly eliminate legitimate resistances that might undermine the actions.

Students in the Taiwan Field School program are from different schools and departments; these students may engage in a multifaceted exchange with other students, break free from the constraints of their profession, and respond to the true needs of the world.

3.0 Learning landscape and community development

Tacit knowledge cannot be transferred unless it is converted into a metaphor in order to be externalized. However, to successfully transfer knowledge, the knowledge transmitter must have in-depth understanding of the significance and the transmission of that knowledge (i.e., detailed content of the transfer). Therefore, "teaching" tacit knowledge is meaningless; tacit knowledge is learned only from practice (Ding-Ming Lai & Nai-Jing Yeh, 2007; Polanyi, 1966). The transfer and learning of tacit knowledge is also a liberation of local knowledge, enabling local knowledge to be learned from different dimensions and perspectives.

Learning landscapes are not only physical spaces where learning occurs; they are also organized spaces under the learning communities (Hui-Chin H. & Shen-Ling C., 2017). Learning landscape is non-one-way information transmission, but from the community interaction. We introduced two cases as below:

3.1 Taiwan Field School

The Taiwan Field School implemented a project in 2017. The project had three major goals:

1. Interdisciplinary resource recycling to integrate urban blue-green belt: Increasing public awareness of the eco-city and integrating the urban blue-green belt to facilitate ecological sustainability.

2. Improving the aesthetics of the community living environment: Increasing community awareness of low-carbon design to create aesthetically appealing and comfortable living spaces.

3. Integrating youth creativity and stimulating community dynamism: Integrating youth creativity to facilitate knowledge transfer and innovation, and infusing environmental education in thinking spaces to facilitate community collaboration.

Building waste in cities is recycled and given a new look using creative and technique learning; these new objects are exhibited in idle corners of the city, providing excellent materials for community-based environmental education.



Fig2. (a) Space practice to break the cement to let the soil breathe; (b) Taiping City Vegetable Garden
(Source: Taiwan field association)

Breaking the Framework of Mobility Learning - All knowledge and experience may become a framework of limitations. Trying to move yourself to a different corner of the world and working with community friends to find a way out will make for a different sweet taste.

~ Taiwan Field School, 2017

By reuse of the materials and space, they were able to remodel an abandoned prison in Chiayi into a work office and area for use by the community. Pechakucha Night, a community sharing event, has been held since the end of 2017. It has attracted many young people and has become a focus of the local government and community.



Fig3. From practice to knowledge- Pechakucha Night, a regularly held event (photo by Taiwan field association)

3.2 Daxi Field School

The Daxi Field School program is the strategy adopted by the Ecomuseum to liberate knowledge. Through resident engagement in sharing of life experiences, participants can associate their personal historical memory with the history of Daxi, thereby enriching the diversity of local culture.

Museums in a social learning system have changed their definition of knowledge, and have subsequently developed the concept of ecomuseum. Hauenschild (2000) defined ecomuseum as an entity that interprets culture more broadly and radically than does traditional museum. Officially approved culture displayed using tangible objects is only a part of a culture (and probably a secondary part of the culture). The goal of an ecomuseum is to reconsider the significance of cultural heritage and extend this concept into people's "everyday activities," verbal expressions, and collective memories (Hauenschild, 2000).

The natural environment and tangible or intangible cultural characteristics are the scope of conservation for ecomuseums because these properties can help residents establish their local identity and unleash their potential to pursue change (Yu-Teng Chang, 2004, p. 205).

The curriculum design of the Daxi Field School program is based on three dimensions:

1. Field research group: Strategies and methods of field research.
2. Field workshop: A knowledge system framework that closely reflects the activities of daily living to attract the participation of the resident and learner.
3. Co-created Forum: Exhibition of youth engagement and local creativity through a curated platform.



Fig4. The program named Digging in Dasi designed the co-learning relationship with teenagers and communities. (Source: author)



(a)



(b)

Fig4. (a)The movie workshop in community culture space; (b)The co-created Forum to accumulate local knowledge. (Source: author)

From the promotion of ecomuseums, locals are urged to tell their own life stories through the incorporation of living scenes in street corner displays. Such displays open up the private spaces of the people and show what they do in their private lives. Also, student participants also promote local micro-tourism and the use of tour guide methods to present the local knowledge that they have unearthed.



(a)



(b)

Fig 5. From knowledge to practice- (a) Street corner display in Daxi(photo by author); (b) Guides to local life—micro-tourism event

There are new societal network relationships created out of different patterns of learning landscape operations through the transfer and exchange of the knowledge from the Field School Community Program. These then cause the participants to have more interpersonal interactions within the community. This especially inculcates local identity in young participants and new community members and leads to active participant-based community development. There are two main avenues of discussion when comparing the models of the two Field School Community Programs, which are described below:

1. Development of community life: field schools in Taiwan began in movements in space. Through human interaction during the co-creation of spaces, which were then changed into community areas, there began to be a new unearthing and description of knowledge from the field schools; in the Daxi Field School, there have been new interactive relationships, local descriptive methods, and fostering of perspectives built through the creation of practical courses in community life and the exchange of knowledge in the private sphere (Fig 6).



Fig 6. Two models of learning process in "Field School"

2. Purchase for local innovation: diversity of local knowledge is unearthed from the local knowledge arising out of the lives that are happening in the moment. This then drives the inclusion of new social groups and establishes value for the individual in the community, which urges the occurrence of individual community participation actions, within which there exists a rich creative power.
3. From Identify to practice: "Legitimate peripheral participation" is a progressive process of societal relationship. In situated learning Study within the context of a community allows students to enter the community, begin to think, and take their first steps in actual practice. In the process both the students' self-identification and their identification with the locality accumulate. This may be a process in which people first participate at the outer periphery of a community before moving into its center. The scrolling and movement that stem from the power of the youth are a part of the sustainable development of communities.

4.0 Conclusion: Inner Gaze

Gaze is the act of seeing and being seen. From a psychological perspective, gaze reflects a mapping of the relationship between self and other, in which a new form of self-consciousness is generated. The community curriculum enables students to examine themselves and others from different perspectives and subsequently establish their self-identity and sense of place.

This study proposes a "model of inner gaze". New social relations established through learning experiences constructed the self-identity, the visible relationship between learning landscapes and invisible new social networks, and then accumulated the local knowledge.

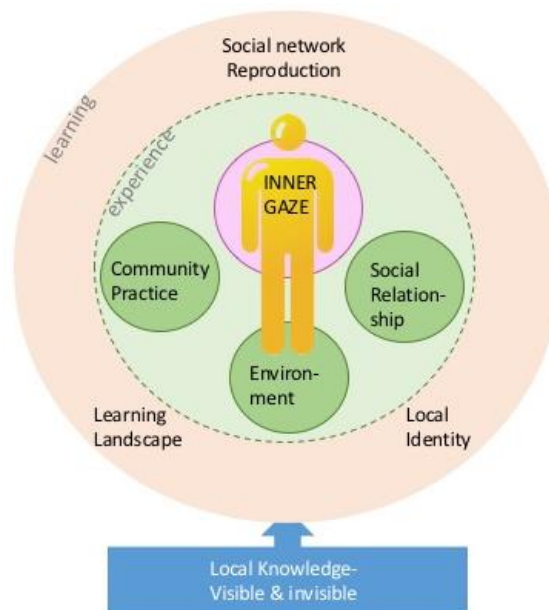


Fig5. Model of Inner Gaze in learning experience
(Source: Author)

Proshansky, and Fabian indicated that a place is a functional component of individual self-identity, and that local identity is a physical world socialization of the self. Local identity includes people's cognition of the environment, which can be categorized into two types: (a) cognition that includes memories, thoughts, values, and settings; and (b) cognition that involves people and different settings (e.g., home, school, and community) (Proshansky & Fabian, 1987).

Identity is closely related to self/others. Exploration of rural spaces not only involves the construction of learners' self-perception and self-identity, but it is also "socialization of the self" rebuilt from self-identity and group identity when contemplating the difference between the self and others in an interactive relationship context.

A planner maintains everyday culture of a place through designs and professional discourse (occasionally translation of local discourse) and actions in space, and also through recollection of local awareness in order to stimulate the innovative capacity of a place based on a bottom-up approach. In Taiwan's civil society, specifically the communities with many years of empowerment in community development, given the diverse accumulation of local culture, structured social relation, and social space. As the process of community development, we try to deviate from the approach of conventional planners, with the expectation of creating new possibilities through educational activities to achieve broadened and diversified interpretations and scrolling dynamism:

1. Local identity through multiple experiences: Through curriculum designs, citizens of all age groups from different communities are gathered together to stimulate the social relationship of a place. It initiates the inclusion of the community's "gaze" at its daily life into a diverse local identity.

2. Exchange platform for local knowledge: Through curriculum designs and network platforms, the local discourse of a place is diversified, and diverse cultural observation and local awareness of a place are brought out.

3. Regeneration of a place: In a social relationship, a place is a necessary construct; in other words, young people returning home is a way of promoting social relationship development and creating the meaning of place.

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