

## Digital Infrastructure for Edusociopreneurship in Tempe Industry: Developing and Optimizing Communal Spaces

Iriaji<sup>1</sup>, Agusta Rakhmat Taufani<sup>2</sup>, Ike Ratnawati<sup>3</sup>, Alby Aruna<sup>4</sup>, Eka Putri Surya<sup>5</sup>

Malang State University, Malang<sup>12345</sup>

email: iriaji.fs@um.ac.id<sup>1</sup>; agusta.rakhmat.ft@um.ac.id<sup>2</sup>;

ike.ratnawati.fs@um.ac.id<sup>3</sup>; alby.aruna.2301218@students.um.ac.id<sup>4</sup>;

eka.putri.2304318@students.um.ac.id<sup>5</sup>

ORCID ID: 0000-0002-8622-1423<sup>1</sup>; 0000-0003-1737-6445<sup>2</sup>; 0000-0001-6305-2842<sup>3</sup>; 0000-0001-8451-8330<sup>4</sup>; 0009-0000-5068-9780<sup>5</sup>

### Abstract

The implementation of this activity aims to examine the development and optimization of unused communal space as a multifunctional facility consisting of galleries, archives and study rooms. The goal is to create digital infrastructure that encourages the creation of edusociopreneurship in the Tempe Industrial Village which is expected to generate income. This activity uses a mixed approach, combining qualitative and quantitative data collection techniques. The activity begins with identifying and analyzing unused communal space available in the Tempe industrial village. The next activity is developing an innovative design plan covering the technological elements needed to transform these spaces into digital environments. This design includes interactive displays, multimedia installations, and network infrastructure to enable seamless connectivity and accessibility. To optimize the potential of the transformed space, an edusociopreneurship framework was implemented that facilitates educational activities, entrepreneurial endeavors, and social engagement in the Tempe industry. In addition, revenue creation opportunities are also integrated through various means such as entry fees, facility rentals, and cooperation with local businesses. Techniques for evaluating the effectiveness and sustainability of digital edusociopreneurship infrastructure are implemented through surveys, interviews, and data analysis. The findings of this activity highlight the positive impact of the transformed space on knowledge sharing, creative expression, and community development in the Tempe industrial village. The results of these activities contribute to the financial sustainability of the facility and provide additional resources for further education initiatives. This activity also contributes to the field of sustainable development by utilizing unused space and promoting edusociopreneurship in the Tempe Sanan industrial village.

**Keywords:** Sanan; Arsip; Gallery; Learning Space

### 1. Introduction

Industry-based community development is one way to strengthen the role and contribution of universities in facing the challenges and needs of society [1]–[3]. In the context of the tempe industry, unused communal spaces can be developed into galleries displaying various high-quality tempe products, archives, and also a form of utilization as a communication center. Visitors can directly coordinate the tempe-making process, while tempe producers can showcase their products and promote the uniqueness and authenticity of the tempe produced with detailed and complete documentation [4], [5]

Various training programs and workshops can be organized to teach technical and managerial skills to the community related to the Sanan tempe industry. This will help the local community to increase their capacity to efficiently manage the tempe business, develop new products, and improve the quality of the tempe produced. Through the development of digital infrastructure in this project, information and knowledge about the tempe industry can

be easily accessed and disseminated to the wider community and become a pilot project for documentation, educational tourism centers, and archives as references.

## 2. Method

The Asset Based Community Development (ABCD) method is an approach that strengthens resources and builds community groups as a continuous development (Al-Kautsari, 2019). This method has five stages, namely: (1) Discovery: identify the assets in the group, (2) Dream: describe a positive vision for the future of the group. (3) Design: a concrete action plan. (4) Define (Definition) determine the responsibilities and roles. (5) Destiny. In full in the following chart:

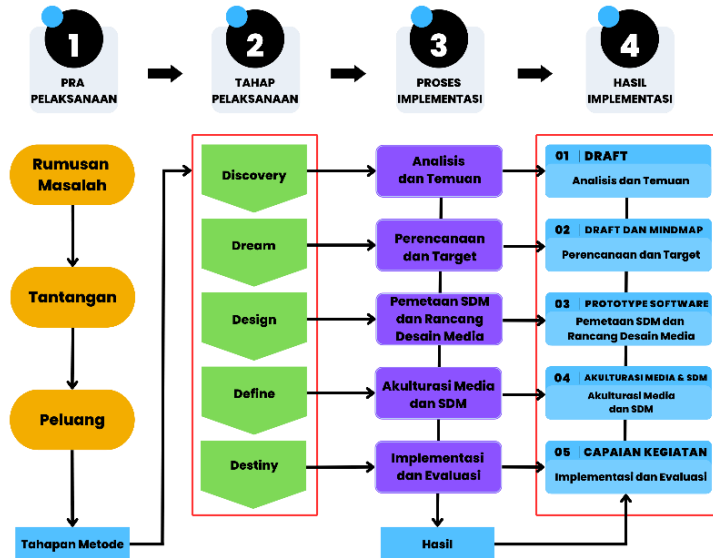


Figure 1. Implementation Model Chart [6]

### 2.1 Data collection

This process collects data through interviews, questionnaires, and referrals. The types of data obtained are quantitative for practicality testing and number-based validation, and qualitative for needs analysis and expert validators [7].

### 2.2 Data Analysis

#### 2.2.1 Increasing Utilization of Open Areas as Edutourism and Edupreneurship Centers

Improvement test in utilizing open areas as edu-preneurship centers and edu-tourism with statistical descriptive tests using SPSS version 25 for windows as a comparison of open area utilization data after and before the physical development of the central tourism infrastructure of Gerabah Pagelaran Village through optimizing the use of unused communal space.

## 3. Results and Discussion

### 3.1 Product Visualization

In this product visualization, communal space that is not utilized will be transformed into a multifunctional space. First, as a gallery, this space will provide a place to exhibit and promote high-quality tempeh products produced by local businesses.

By recognizing the value of designing and improving vacant communal spaces to generate income and establishing a tourism and entrepreneurship education center in

Kampung Industri Tempe Sanan, the development process stage known as the development of communal spaces places a focus on interior development and improvement. The primary goal of this study is to create sustainable tourism infrastructure in the region that benefits the local economy (see figures 1, 2, and 3 in the "space development process" chart).

The "utilization results" table's Figures 1, 2, and 3 show the results that were obtained. The development process produced the following results: (1) Community spaces that are open to the public for educational tours and visits; (2) Library and museum archives of pottery funeral documentation; and (3) Locations for the incubation of new forms as design designs for pottery derivative products.

The analytical test's findings indicate that by making the most of underused common space, the construction of a tourism infrastructure for Kampung Industri Tempe Sanan has a good effect. Due to the creation of a physical tourism infrastructure and the effective utilization of unused community space, this implementation is particularly beneficial for the sustained expansion of the village and business.

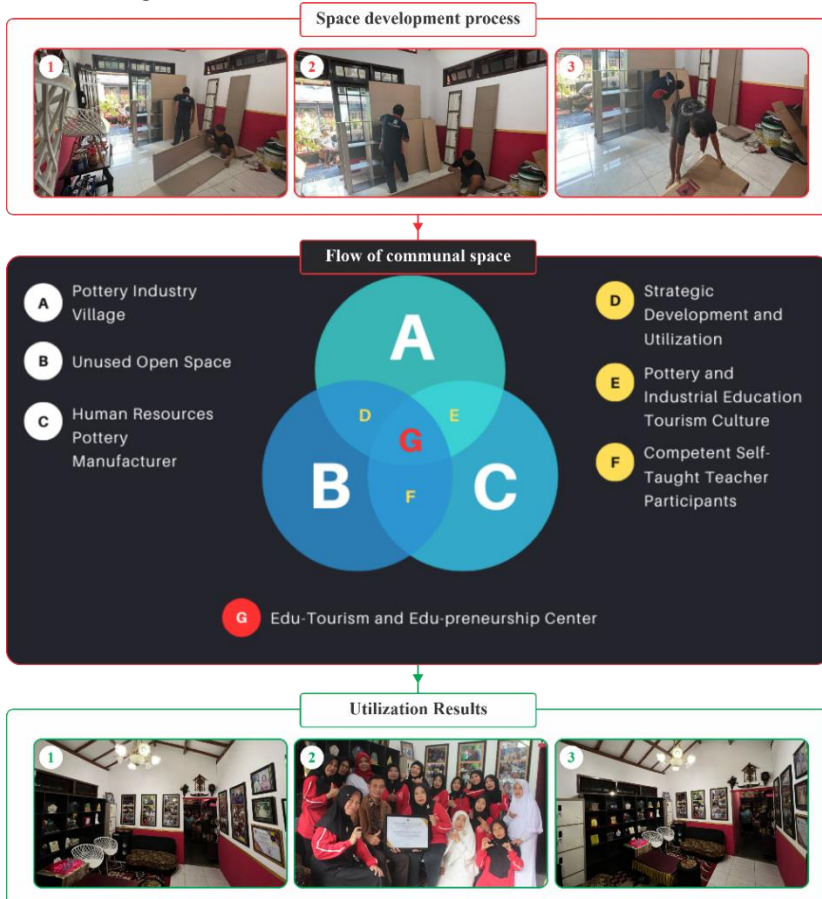


Figure 2. Product Visualization

### 3.2 Analysis Test Results

The results of the descriptive statistical analysis show that the average indoor and outdoor land use is 132.50m<sup>2</sup> while the average indoor and outdoor land use after development, optimization, and digitization of the unused communal space of Tempe Sanan Industrial Village becomes a gallery, archive, and space study that is equal to 267.50m<sup>2</sup>. Based on the results of the data analysis, it can be concluded that there is an increase in the utilization

of open areas after developing, optimizing, and digitizing the unused communal space of Tempe Sanan Industrial Village into galleries, archives, and study rooms.

**Table 1. Descriptive Statistics**

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Sebelum	2	50	215	132.50	116.673
Sesudah	2	120	415	267.50	208.597
Valid N (listwise)	2				

### 3.3 Process of Dissemination and Implementation

Implementation in this activity, the implementation team focused on developing and optimizing unused communal spaces into Galleries, Archives, and Study Rooms. Our innovative concept is to create a digital infrastructure that integrates education, social entrepreneurship, and the tempe industry [8]. To disseminate this idea, we carried out various strategic steps. First, we identified our target audience, including the general public, local businesses, local government, and the education community. We communicate the vision and goals of the project to them, explaining the benefits of optimizing unused communal space [9]. Furthermore, we utilize social media to promote our project widely [10]–[12]. We create special pages on social media that contain interesting content such as images, videos and stories that illustrate our concept. In addition, we also conduct media and press campaigns by sending news releases to local media, news sites and related blogs. Collaboration with educational institutions, such as schools and universities, is also an important part in disseminating this space. We hold training, workshops and educational programs in the space, as well as invite expert speakers in the fields of arts, culture and entrepreneurship.

### 4. Conclusion

Through a complete and sustainable dissemination step and development process, we have succeeded in effectively disseminating Unused Communal Space, creating widespread awareness, and providing real benefits to the people and local communities. All activities sourced from Non-APBN funding at State University of Malang in 2023, as well as all implementing activities for the purpose of this community service can be carried out.

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