

## Local Art Wall Decor: Development and Edusociopreneurship at TK Lab UM

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### Abstract

This study discusses development, training, and edusociopreneurship in interactive wall decorations that depict the nuances of local cultural arts in the Laboratory Kindergarten, State University of Malang. The purpose of this activity is to explain the process of developing and implementing interactive wall decorations that involve elements of local arts and culture and their impact on education and social entrepreneurship in schools. The research methods used include surveys, interviews, observations, and literature studies. Surveys conducted to identify the characteristics of local cultural arts that can be used as inspiration for interactive wall decorations. Through interviews and observations, training was conducted for teachers and students to develop technical and creative skills in designing and implementing interactive wall decorations. The results of this implementation show that the use of interactive wall decorations with nuances of local cultural arts can increase student interest and participation in the learning process and help live up the school atmosphere by creating attractive, interactive and participatory spaces as well as developing creative and technical skills and an understanding of local cultural values. This implementation also has a positive impact in the field of social entrepreneurship by involving students as agents of change and social entrepreneurs in schools by learning about project management, marketing, and collaboration with external stakeholders to increase the positive influence of interactive wall decorations on local communities. This activity concluded that the development of interactive wall decorations with nuances of local cultural arts is an effective approach to improve the quality of learning and social entrepreneurship in schools.

**Keywords:** Interactive; Wall Décor; UM Laboratory Kindergarten; Development; Edusociopreneurship

### 1. Introduction

The application of local cultural arts education in the form of interactive wall decorations in Laboratory Kindergartens has several important benefits. First, this will strengthen students' cultural identity with unique and interesting dissemination [1]. In an interactive and interesting experience, children will be directly involved with local cultural arts, get to know and appreciate their wealth [2]–[5]. This exercise is not only about creating beautiful wall decorations, but also providing valuable learning experiences for students. The works of art produced through this project can be products that are sold, either as wall decorations, merchandise, or other products related to local cultural arts. Through this activity, Malang State University's Laboratory Kindergarten can be involved as a partner or craftsman who collaborates in the production and marketing of local cultural arts products [6].

## 2. Method

The Asset Based Community Development (ABCD) method is a community approach by identifying and utilizing existing resources. The approach contains the strengths and potential of the community as a sustainable development.

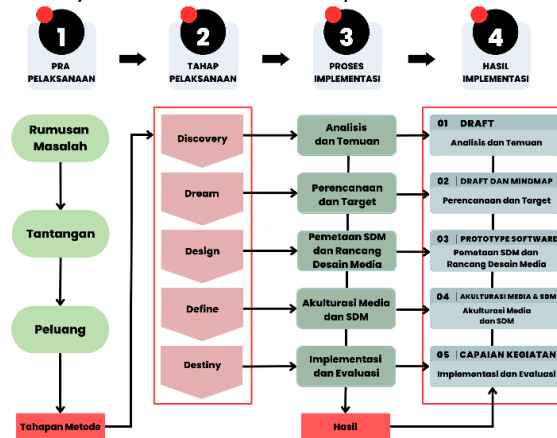


Figure 1. Service Executor Procedure Model Chart, adapted from [7]–[9]

The ABCD method consists of skills, strengths, values and knowledge that exist in community groups as an effort to build a brighter future. The method consists of the stages of discovery, dream, design, define, and destiny as the development of group potential and collaboration between community groups for good change.

### 2.1 Data Collection

This implementation collects data by interviews, questionnaires, and documentation. Then the type of data obtained is quantitative data for number-based validation tests and practicality tests. Qualitative data for needs analysis and expert validators.

### 2.2 Data Analysis

#### 2.2.1 Media validation test and material validation test

$$P. \text{ \% } = \frac{\text{V.ah}}{\text{TSh}} \times 100\%$$

Keterangan:

V.ah. : Expert Validation

TSe : Total Empirical Score

TSh : Total Expected Score

The decision making of the validation test is based on the achievement level criteria, namely if the achievement level is 81% - 100% then it can be classified as very valid, 61% - 80% is classified as valid, 41% - 60% is classified as quite valid, and if it is less than 40% then the medium is classified invalid (Aruna, Inayah, et al., 2021).

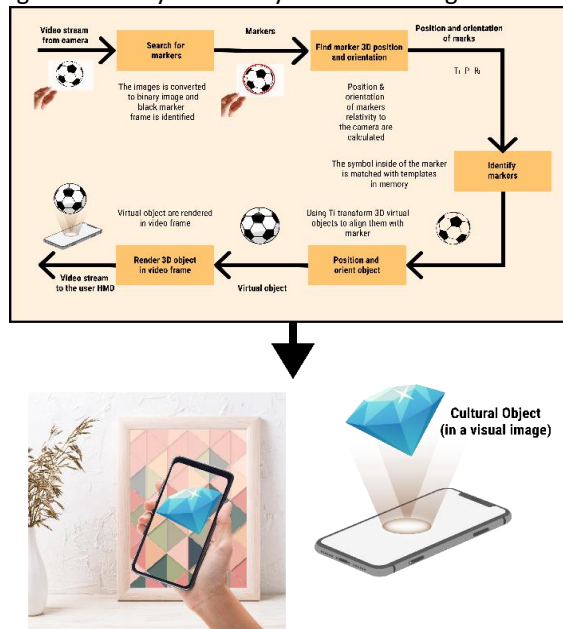
#### 2.2.2 Effectiveness Test

The effectiveness test is carried out through a paired sample test. Before conducting the paired t test, the Kolmogorov-Smirnov normality test was first performed. The hypothesis put forward is that  $H_0$  there is no difference in learning outcomes before and after implementing the media and  $H_a$  there are differences in learning outcomes before and after implementing the media. Decision making is based on the probability value if probability > 0.05 then  $H_0$  is accepted and if probability < 0.05 then  $H_a$  is accepted.

### 3. Results and Discussion

#### 3.1 Product Visualization

Implementation of the service "Local Art Wall Decor: Development and Edusociopreneurship at TK Lab UM", augmented reality (AR) technology is used to create interactive experiences on wall display products in the form of wall decor that radiate local culture. Through the use of AR, users can view wall decor with additional visual, sound and information elements related to local art and culture represented in the design [3], [10]–[12]. Through the AR application, users can scan wall decor using their smartphones or tablets. Then, the color wall decor with the nuances of local cultural arts will live and interact on the screen of the user's device. Users can also listen to stories or information related to these batik motifs, including their history and the symbolic meanings behind them [13].



**Figure 2. Product Visualization**

In addition, AR also allows users to actively participate in the experience. They can use the screen touch feature to rotate, zoom, or move interactive elements in the wall decor, providing greater flexibility and involvement [14]. During the implementation of the service, a wall decor was developed that combines local cultural arts with AR technology. Furthermore, training was carried out for the teaching staff of the Laboratory Kindergarten in using this AR technology and integrating it into the relevant curriculum or learning activities [2], [15], [16]. In addition, an edusociopreneurship approach is applied by involving local communities, developing artisan skills, and creating economic opportunities through the production and marketing of this interactive wall decor. This service project aims to strengthen understanding and appreciation of local culture.

#### 3.2 Analysis Test Results

##### 3.2.1 Media Expert Validation

Based on the results of the analysis of media expert validation data, an empirical score was obtained of 179 with a total expected score of 200. So that an average percentage of the media expert validation was obtained, namely 89.1% which very decent achievement level. Thus, interactive wall décor products with the nuances of local cultural arts are appropriate to

use. The results of the analysis on each aspect of the media expert validation assessment can be seen in the table.

**Table 1. Media Expert Analysis Result Data**

No	Aspek	TSe	TSh	V.ah (%)	Kriteria
1	Desain dan Tampilan	54	60	90	Sangat Layak
2	Kualitas Konten	36	40	90	Sangat Layak
3	Motivasi Belajar	55	60	90,6	Sangat Layak
4	Kualitas Teknis	34	40	85	Sangat Layak
	Rata – Rata	179	200	89,1	Sangat Layak

### 3.2.2 Effectiveness test results

The results of the Kolmogorov-Smirnov normality test obtained a significance value of 0.200 so that it is greater than 0.05, means the data distribution is normal. The effectiveness test using the paired t-test with paired samples statistics showed that the average value of 100 populations before using the media was 53.77 while the average value after using the media was 82.34. It can be concluded that there is an increase in learning outcomes. The results of the test are presented in the following table.

**Table 2. Paired Samples Statistic**

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre Test	53.77	100	7.756	.776
	Post Test	82.34	100	5.645	.564

The second output of the effectiveness test results using the paired t test shows that the value of Sig. (2 – tailed) of 0.000 is less than 0.05 or  $0.000 < 0.05$  then  $H_0$  is rejected and  $H_a$  is accepted. Based on the statistical analysis results, there is a significant difference between the value before and after using the media. The results of the statistical analysis of the paired samples test can be seen in the following table.

**Table 3. Paired Samples Test**

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pre Test - Post Test	-28.570	8.121	.812	-30.181	-26.959	-35.182	99	.000

### 3.3 Dissemination and Implementation Process

In the dissemination stage, identification of the target audience was carried out, including teachers, kindergarten students, parents, and the local community who are interested in local arts and culture. Then, interactive wall decor was developed with local cultural nuances through collaborating with artists, designers and technologists to create unique designs. AR technology is applied in the wall decor, so users can see interactive effects when scanning wall decor with devices. Furthermore, the training stage was carried out to educate kindergarten teachers and students about the use and benefits of interactive wall decor. Students and teachers are given the opportunity to practice and develop their creativity in using interactive wall décor. After the training stage, the implementation of interactive wall decor was carried out in the Laboratory Kindergarten. Wall decor is installed in classrooms or areas that can be easily accessed. Teachers and students are given the opportunity to appreciate, interact, and learn through interactive experiences provided by wall decor.

Feedback from teachers, students, and parents is collected to identify successes, obstacles, and improvements that can be made. This is important to ensure the effectiveness and sustainability of the use of AR technology in the context of early childhood education.

#### 4. Conclusion

The implementation carried out in this activity allows teachers and students to develop technical skills in making wall decorations and facilitates children's interaction with interactive art elements. The works of art produced through this project can be products that are sold, either as wall decorations, merchandise, or other products related to local cultural arts. This activity has a single non-APBN funding source, State University of Malang in 2023, as well as the support of the Laboratory Kindergarten as the venue.

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