

Research Article

Optimization of Work Gallery Design with FIFO Approach -- FEFO

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Abstract.

Art and design students in the learning process on campus produce works of art and products. These artworks including many kinds of creative expression, in example: painting, sculpture, art installation, graphic design, photography, and others more. The resulting works will be exhibited and archived in the work gallery. However, existing galleries have not been efficient in organizing the presentation and placement of works, resulting in damage, neglect, and disruption of works. This phenomenon occurred at the Faculty of Creative Industries Telkom University, Bandung. Data collection is carried out through visual observation, documentation, interviews, and literature studies. Data were analyzed using FIFO – FEFO approach. In this study, it can be shown that the application of FIFO-FEFO provides practical guidance for designing better gallery layouts, preventing damage to artworks, reducing abandonment of works, and ensuring a balanced rotation of works. Thus, the FIFO-FEFO approach has an important role to play in improving the effectiveness of gallery and exhibition design and providing a better experience for gallery visitors.

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1. Introduction

Art gallery comes from the word “galleria”, which means a room where one side is open and roofed. Gallery can be interpreted as a room used to exhibit and display a work of art and design [1]. In the campus environment, the work gallery is an important place for students to express creativity, share ideas and inspiration, show student’s progress in the learning process, develop artistic skills, and exhibit works to the general public, which includes various forms of artistic expression, such as paintings, sculptures, art installations, graphic design, photography, and others. Good management of the work gallery is a crucial aspect in supporting the learning process and developing students’ artistic talents. However, the management of gallery works often faces challenges in the preparation and placement of works that cause problems such as physical damage to works, not exhibited fairly, or even neglect of certain works. The collection of student



works becomes irregular and unbalanced because works that enter more recently continue to be displayed, while old works should be displayed alternately. This can reduce the artistic value of the work and harm students as young artists who are learning.

This requires an effective management approach to manage student works in the work gallery. One approach that can be used is the FIFO (First In, First Out) and FEFO (First Expired, First Out) approaches [2]. The application of the FIFO-FEFO approach in managing student work collections in galleries can help improve the effectiveness of work gallery design. The FIFO approach prioritizes layout and presentation based on the order in which the product first arrived, or the date of creation and delivery of the artwork. While the FEFO approach prioritizes the rotation of artworks by considering the date of the exhibition. Therefore, through this research, it is expected to contribute to the design of the layout of the art and design gallery to maximize the presentation of regular and proportional works. By applying this approach, it can provide appropriate recognition appreciation, and can increase student appreciation of works of art and design.

2. Method and Equipment

This research uses a qualitative approach with a case study method. A case study is a form of research in which researchers investigate a particular phenomenon in a timed event, and gather detailed information from that event [3]. The research population is the entire art and design students at the Faculty of Creative Industries, Telkom University Bandung, who periodically produce artwork and products as part of their learning process. The sample in the study was selected based on *probability sampling*. *Probability sampling* means that each population has the potential to be sampled, and is random that is able to represent [4].

The data collection method is carried out by direct visual observation in the work gallery, and documentation carried out by taking photos, recording video and audio, and writing research results. The interviews were conducted in-depth interviews with gallery managers, lecturers and student representative councils. After the data is obtained, the data is analyzed using data triangulation, which is a method of synthesizing data using other data collection with the aim of providing confidence to researchers about the validity of the data [5]. The stages of data collection and data triangulation are carried out by sequencing the results of observations, interviews, and literacy studies so that later the main problem of the research will be obtained.

3. Results

3.1. Work Gallery Conditions

A work gallery refers to an inadequate facility or exhibition space that cannot exhibit artwork or other works. The work gallery is located on the 5th floor, which is combined with a fine art *workshop*, and is partitioned with gypsum walls, so that the work gallery only gets a part of the room with a size of 8m x 11m.



Figure 1: The condition of the Works Gallery.

Figure 1 shows the inadequate physical condition of the work gallery, such as walls that do not cover the whole, leaky roofs, inadequate lighting systems, ineffective layouts, lack of care and maintenance and lack of curation, and improper selection of works. Based on the results of the analysis, optimization of the design of the work gallery was carried out with FIFO (First In, First Out) and FEFO (First Expired, First Out) approaches. A commonly used approach in inventory management is to organize the order of storage and withdrawal of goods. What is considered in optimizing the design of the work gallery is the right layout arrangement, ensuring the continuity of the presentation of the work, preventing damage and decrease in the value of the work, and reducing the abandonment of the work.

3.2. FIFO FEFO Flow

FIFO – FEFO has a flow consisting of administration, logging, storage, and maintenance [6]. The stages of the flow become a reference in the layout design process and the flow of work gallery activities.



Figure 2: FIFO-FEFO Flow.

The administrative stage involves the process of managing data and documents related to the work. This includes recording the receipt of works, expiration date data (for FEFO), quantity of goods, and others. At the data collection stage by ensuring that each work received is recorded correctly. Information on the expiration date (for FEFO) and the date of receipt must be clearly documented. The storage stage involves the way works are stored in a gallery of works. In the FIFO method, the work that goes into inventory is the first to go out. While in the FEFO method, works that have the closest expiration date will be a priority to be reduced. The storage stage must be done carefully to ensure that the work received first is well placed so that it can be easily accessed and managed according to the chosen method. The maintenance stage is about maintaining the quality of the work. In the FEFO method, it is important to ensure that works with longer expiration dates are used or sold in advance to avoid waste.

The process of designing the layout and flow of work gallery activities will refer to the flow above to manage the stock of artwork or products on display. Layout arrangement by implementing FIFO-FEFO, using this system, artworks and products that enter for the first time (First In) will be given priority to be exhibited or placed strategically. This helps prevent piles of works that haven't been displayed or displayed in a long time, so that each work can be enjoyed by visitors more fairly. In a good gallery design, it is important to consider a balanced rotation of works. Using the FIFO-FEFO approach,



Figure 3: Art Gallery Layout.

artworks that have been exhibited or archived for a long time (First Expired) will be taken first and replaced with new artworks. In the context of galleries, this ensures that artworks do not suffer damage from continuous exposure to environmental elements and light. Regular rotation of works helps maintain the continuity and beauty of each work.

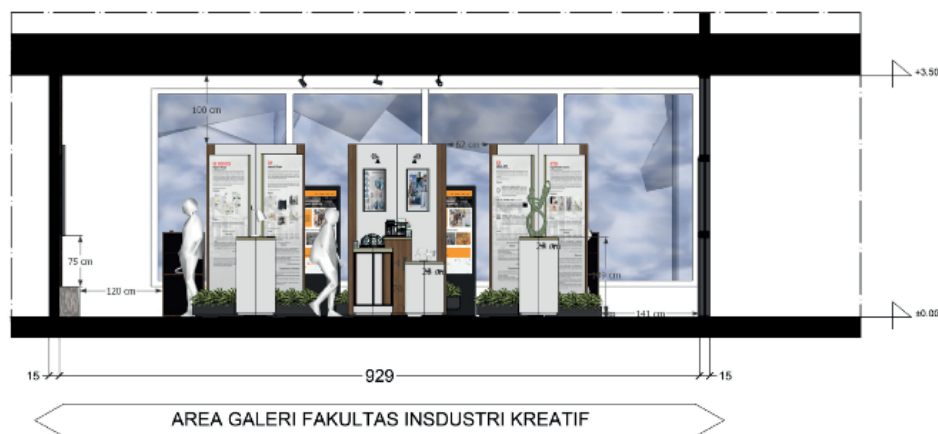


Figure 4: Art Gallery Area.

Galleries that do not use the FIFO-FEFO system tend to experience neglect of some hidden or forgotten works. With the implementation of FIFO-FEFO, each artwork has a fairer opportunity to be exhibited and enjoyed by visitors. This helps reduce the risk of abandonment of artwork and provides an opportunity for each student to display his or her work. And ensure a balanced rotation of work. The rotation of works in the gallery becomes more balanced because each artwork is treated fairly and sorted by entry and exit priority. This helps create variety and diversity in each exhibition and provides an opportunity for all students to display their work equally.



Figure 5: Student's Artwork Gallery Area Visualization.

The implementation of the FIFO-FEFO system in art and design galleries can significantly improve the effectiveness of gallery and exhibition design. Visitors will be able to enjoy a better experience as each artwork is given the attention it deserves, each work has an identity, reduces the risk of damage and neglect, and creates a more dynamic and interesting atmosphere in the exhibition of artworks and designs.

4. Conclusion

Art galleries have a central role in supporting the learning process and developing students' artistic talents. The FIFO-FEFO system is an effective management approach to managing the collection of student works in galleries. Good gallery management with the implementation of FIFO-FEFO helps overcome the problems of layout, presentation, and rotation of works. Artworks are placed regularly and proportionally, preventing physical damage, and ensuring proper recognition for every student as a young artist who is learning. The process of designing the layout and flow of gallery activities regarding the FIFO-FEFO system allows for a more balanced presentation of works, reduces the risk of abandonment of works, and provides a better experience for gallery visitors.

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