

Development of Skills and Hand-Drawn Batik Training Based on Local Wisdom to Foster Independent and Creative Students

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<p>Received: Oct 30, 2025 Revised: November 1, 2025 Accepted: Dec. 1, 2025 Published: Dec. 20, 2025</p> <p>Corresponding Author: Author Name*: Lena Magdalena Email*: lena.magdalena@cic.ac.id</p> <p>DOI: 10.63158/SCD.v3i2.47</p> <p>© 2025 The Authors. This open access article is distributed under a (CC-BY License)</p> 	<p>Abstract. The development of skills and training in hand-drawn batik based on local wisdom aims to foster independence and creativity among students as agents of change in the creative economy. This program is designed as an effort to preserve traditional batik culture while empowering students to create economically valuable and competitive products. The implementation consists of three main stages: (1) socialization and introduction of local wisdom values in batik motifs; (2) technical training in hand-drawn batik production, including design and finishing processes; and (3) entrepreneurship mentoring to market batik products through digital platforms. The results show a significant improvement in students' skills in batik making, understanding of the philosophical meanings behind local motifs, and enthusiasm for culture-based entrepreneurship. In addition, this program encourages students to innovate in creating modern batik designs while maintaining the essence of local cultural values. The impact is not only reflected in individual skill enhancement but also in the establishment of a creative student community oriented toward cultural preservation and sustainable economic development. Thus, this training demonstrates that the integration of education, culture, and the creative economy can serve as an effective means to realize independent, innovative, and culturally aware students who contribute to preserving the nation's cultural heritage.</p> <p>Keywords: Hand-drawn Batik, Local Wisdom, Independence, Creativity, Creative Economy</p>
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1. INTRODUCTION

The creative economy has increasingly become a central focus in discussions of global economic growth, as it emphasizes the use of creativity, innovation, and cultural expression as primary resources for generating economic value [1]. The creative economy has become one of the main drivers of national development because it contributes significantly to economic growth and job creation. This sector encompasses various fields such as art, design, information and communication technology, media, fashion, and others. Unlike traditional economic sectors that rely on natural resources and manufacturing, the creative economy is grounded in ideas, talent, and human creativity [2].

One of the creative economy subsectors with high historical and cultural value is batik. Batik refers to patterned cloth created using a resist technique involving wax (malam) [3]. As a cultural heritage of Indonesia recognized by UNESCO, batik is not only a symbol of national pride but also holds great potential to be further developed as a source of innovation and entrepreneurship for younger generations [4]. The origins of batik date back to the Majapahit era and the spread of Islam in Java, initially practiced within royal palaces and exclusively worn by royal families and their attendants. Over time, batik evolved into a cultural artifact exchanged between kings or gifted to respected community members [5].

However, globalization and modernization trends have shifted public interest toward contemporary fashion, posing threats to traditional batik motifs, local cultural heritage, and the economic well-being of artisan communities [6]. Younger generations especially university students tend to be more attracted to global popular culture, leading to declining appreciation and understanding of batik, particularly motifs rich in local wisdom [7] [8]. Knowledge and skills related to batik must be continuously transferred to future generations to ensure its sustainability [9]. Therefore, cultural conservation and batik innovation are essential to preserve this heritage as a timeless symbol of Indonesian identity [10].

In this context, local wisdom plays a crucial role as a foundation that maintains a harmonious relationship between humans, culture, and the environment. One way to

integrate local wisdom is by embedding it into educational activities [11]. Incorporating local wisdom into the curriculum strengthens moral and spiritual development. Local traditions carry inherent values such as cooperation, respect, and spirituality aligning with educational goals aimed at character building [12] [13]. In batik practice, local wisdom is reflected in motif selection rich in symbolism, the use of environmentally friendly natural dyes, and production processes rooted in community values. These elements make batik not only an art form but also a cultural identity and ethos of the Indonesian archipelago.

Each batik type has varying levels of complexity in its creation process. Batik tulis (hand-drawn batik) uses the canting technique, where wax is manually applied using a canting tool to outline motifs on cloth [12]. According to SNI 8302:2016, batik tulis characteristics include repeated or non-repeated motifs; wax strokes that are not always perfectly uniform; color seepage due to thin wax application; irregular wax cracks; and distinctive motif connections, sizes, spacing, and details that are never exactly identical [12].

Batik tulis is considered the most intricate form of batik because all processes are carried out manually using a canting [14]. Its high level of difficulty contributes to its higher market value compared to stamped or printed batik. Furthermore, each batik tulis piece is unique its lines, dots, and strokes embody the identity of the artisan. This authenticity gives batik tulis a distinguished position in Indonesian art and cultural heritage.

In recent years, young people have shown increasing enthusiasm for wearing batik in formal, semi-formal, and everyday settings. The development of modern batik designs has made batik more inclusive and aligned with current fashion trends. However, this enthusiasm becomes more meaningful when accompanied by understanding and appreciation of its traditional production process. Concerns arise when younger generations become mere consumers, without understanding the craftsmanship behind Batik Tulis. A decline in interest in learning traditional techniques could result in the gradual disappearance of this centuries-old heritage.

Implementing hand-drawn batik training based on local wisdom serves as a strategic effort to ensure cultural sustainability while strengthening the creative economy sector[15]. This activity encourages students to explore cultural-based entrepreneurial

potential, enabling them to generate added value for themselves and society. The program also aligns with the university's vision of producing independent, creative graduates who are globally competitive yet culturally grounded.

The Information Systems Study Program of Universitas Catur Insan Cendekia, together with lecturers and the Information Systems Student Association (HIMASI), organized a Community Service Program (PKM) as part of the National Batik Day celebration in October 2025. The activity was attended by students as a form of experiential learning and cultural preservation. The program also collaborated with Batik Trisha Cirebon, a local SME actively engaged in preserving batik craftsmanship. Through this collaboration, students learned directly from professional artisans about traditional batik techniques, the philosophy behind Cirebon's signature motifs, and the creative processes involved in producing high-quality batik. This interaction also exposed students to real-world connections between culture, creativity, and entrepreneurial opportunities.

Therefore, this program aims to develop and implement hand-drawn batik training based on local wisdom as an effort to empower students. The PKM activity is expected to enhance students' technical skills, creativity, and entrepreneurial mindset while fostering awareness of cultural preservation. It is also hoped that this program will cultivate pride and inspire creativity in adapting motifs, techniques, and the use of batik in contemporary products [16].

2. METHODS

The method used should be accompanied by references; the relevant modification should be explained. The procedure and data analysis technique should be emphasized in a literature review article. The stages and analysis of the research must be explained in detail. This batik training program was carried out in a planned and gradual manner. The implementation consisted of several stages, namely coordination and preparation, execution, and evaluation. The training activities were conducted through the following methods and phases:

1) Preparation Stage

The initial phase focused on activity planning, scheduling, determining the training location, and mapping the participants involved. The implementation team coordinated with the university, local batik communities, and MSME practitioners as supporting partners. In addition, a training module was developed, covering basic theory of hand-drawn batik, values of local wisdom, and strategies for developing culture-based creative enterprises.

2) Socialization and Observation Stage

The socialization process was carried out to introduce the program to students and relevant stakeholders while also recruiting training participants. During this stage, an initial assessment was conducted to evaluate students' knowledge, interest, and skills related to hand-drawn batik. This data served as the basis for determining a learning approach that aligned with participants' characteristics [17].

3) Training and Technical Assistance Stage

The training was delivered through face-to-face sessions with hands-on practice [18]. This PKM activity utilized the canting technique, which is the most commonly used method and is considered the earliest traditional technique. The training materials included:

- a) introduction to the history and philosophy of batik based on local wisdom,
- b) techniques for drawing hand-drawn batik patterns,
- c) canting and coloring processes using natural dyes, and
- d) drying and finishing techniques.

Throughout the activity, participants received intensive assistance from professional batik instructors and local artisans. The learning by doing method was applied, engaging all senses in the learning process so that participants could understand each stage more deeply and meaningfully [19]. This method emphasizes students' active involvement through direct experience, observation, and practice [20]. The tools and materials used in this training included: Tools:

- a) Canting – a tool used to transfer, collect, and hold melted wax on the cloth according to the pattern. A canting is made of copper with a bamboo handle, designed to be lightweight for ease of use [21].

- b) Canvas Cloth – used as the main medium for drawing or writing batik motifs. Canvas was chosen for its thick texture and strong fibers, making it suitable for modern batik experiments or decorative artwork.
- c) Pencils and Batik Motif Patterns – for sketching or outlining batik patterns prior to waxing. Patterns may be drawn manually or printed from digital designs.
- d) Stove – traditionally, artisans used an anglo (charcoal stove) to heat batik wax, requiring patience to maintain a stable flame. Modern artisans prefer stoves—especially electric ones—for easier temperature control.
- e) Pan (Wajan) – used to melt batik wax. These pans may be made from clay or metal. Historically, clay pans were preferred because their handles stayed cooler, though they heated wax more slowly.

Materials:

- a) Cloth – commonly used fabrics include canvas and mori.
- b) Batik Wax (Malam) – a special wax used to cover parts of the cloth according to the batik motif so that the covered areas resist dye during coloring (Hendrawati et al., 2021).

4) Entrepreneurship Assistance Stage

After participants acquired basic batik-making skills, additional assistance focused on entrepreneurship development was provided. This stage involved guiding students in exploring creative business opportunities, product development, packaging, and marketing strategies for batik-based products.

5) Evaluation and Sustainability Stage

Evaluation was conducted both qualitatively and quantitatively to measure improvements in participants' knowledge, skills, and attitudes after completing the training. Instruments used included questionnaires, interviews, and observations of students' batik. The evaluation results were then used to develop recommendations for future program enhancements. To ensure sustainability, the program also encouraged the formation of a Student Batik Community as a platform for collaboration and innovation in creative batik products within the university environment.

3. RESULTS AND DISCUSSION

This training activity was carried out collaboratively by students of the Information Systems Student Association (HIMASI) and lecturers from the Information Systems Department, in partnership with artisans from Trisha Batik Cirebon. The training took place on Sunday, October 26, 2024, at the Hub 58A Campus of Universitas Catur Insan Cendekia, Cirebon. The participants consisted of 30 students from HIMASI, 4 lecturers, and 5 batik artisans from Trisha Batik Cirebon. In the initial stage, an opening session was held along with socialization and the introduction of local wisdom values embedded in traditional Cirebon batik motifs, such as the *Mega Mendung* and *Paksi Naga Liman* motifs. The students showed great enthusiasm in understanding the philosophy behind these motifs, which reflect values of patience, balance, and wisdom.



Figure 1. Opening of the Event

The training began with preparing all the tools and materials needed for the opening session and material delivery in the designated room. The participants were then gathered in the room, followed by the official opening of the training by the batik team together with the Information Systems students of UCIC. The session continued with the presentation of materials, which included the definition of batik, its historical development, types of batik, batik tools and materials, the stages of the batik-making process, the batik design to be used during the training, as well as examples of batik produced using the techniques that would be practiced. A question-and-answer session related to the presented material was also conducted, including identifying participants' prior experience with batik making.



Figure 2. Batik Preparation

In the next stage, the participants began by drawing the provided batik motifs/designs onto canvas cloth, followed by the process of applying batik wax (*malam*) to certain areas to prevent them from absorbing color. The batik wax, or *malam*, functions as a resist against dye. Most participants experienced significant challenges during this stage, as many of them were creating hand-drawn batik for the first time. Proper hand positioning and correct handling of the *canting* were essential to prevent the wax from spilling or spreading, which became one of the major difficulties for the participants. Likewise, ensuring that the wax adhered properly to the drawn motifs was also challenging, as the wax must fully penetrate the fabric in order to effectively resist the dye.



Figure 3. Process of Selecting Batik Patterns and Motifs

Next, during the technical batik-making training, the participants learned directly from local batik artisans. The students were trained in pattern drawing, the *canting* (wax

application) process, natural coloring using plant-based materials, as well as drying and pelorodan (wax removal). As a result, 90% of the participants successfully produced hand-drawn batik works featuring motifs that reflect a blend of traditional values and modern elements.



Figure 4. Batik Motif Design Creation Process



Figure 5. Photo Series of Batik-Making Practice Sessions by Training Participants



Figure 6. Series of Photos from the Batik-Making Practice Session

After gaining knowledge from the training, the participants immediately practiced the batik-making techniques, starting from selecting the fabric, choosing colors and motifs, to creating batik using distinctive traditional patterns.



Figure 6. Series of Group Photos with Batik-Making Results

The training we conducted went smoothly. The participants were highly enthusiastic and actively engaged in the batik-making process, producing various unique motifs. The batik training provided to Information Systems students resulted in a range of works that reflect creativity, perseverance, and a strong spirit of craftsmanship. Although most participants were beginners in batik, they were able to create fabrics with diverse and appealing motif patterns.



Figure 7. Series of Group Photos with Batik Results and the Trisna Batik Team

The outcomes achieved through this local wisdom-based batik training include increased participant interest in learning art and culture, particularly batik-making. The participants gained new knowledge and skills related to the batik process, and they became more aware of the importance of preserving both Indonesian culture and local

regional traditions. The batik pieces created during the training were taken home by the participants, serving as motivation for them to produce even better works in the future. The participants also showed high enthusiasm throughout the batik-making process, as seen from their eagerness to request guidance from the training team to achieve optimal results, as well as the joy and excitement they displayed during the activity.

4. CONCLUSION

The program for preserving batik is the responsibility of all Indonesian people, as batik is a cultural product of the nation that captures various events, traditions, and beliefs within different communities. Catur Insan Cendekia University suggested that the community service team provide additional batik training in the future with different types of batik so that students can gain more diverse knowledge and skills in batik-making. The batik artisans also recommended that batik be introduced as one of the artistic and cultural activities within student organizations at the university, so that the younger generation can better understand and appreciate batik, and even create opportunities for entrepreneurship and employment in the community.

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