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The Use of *the Figma* Design Application with the ATM (Amati, Tiru, Modifikasi) Method in Class X Students at SMK Negeri 3 Medan

Norenta Sitohang
Universitas Budi Darma, Medan, Indonesia

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Email :
sitohangnorenta@gmail.com

ABSTRACT

This study aims to examine the effectiveness of the use of the Figma design application with the ATM (Observe, Imitate, Modify) method in improving the design skills and creativity of grade X students at SMK Negeri 3 Medan. The research method used is qualitative descriptive with participatory observation techniques, interviews, documentation, and analysis of students' work. The research was conducted on 30 students majoring in Software Engineering through educational field practice. The results show that the ATM approach is able to improve the understanding of design principles, technical skills in the use of Figma, as well as encourage innovation in design modification. Digital collaboration also helps develop communication and teamwork skills. Although there were initial obstacles in adapting Figma's features, they could be overcome through intensive mentoring. Thus, the integration of Figma and the ATM method has proven to be effective as a design learning strategy that is applicable, creative, and in accordance with industry needs.

INTRODUCTION

Education in Indonesia, especially in vocational schools, faces significant challenges in integrating digital technology with appropriate learning methods. One of the important skills in today's creative industry is the ability to design User Interfaces (UI) and User Experience (UX). In the past, the process of creating UI/UX designs required complex and expensive software and hardware, which made it difficult for students to learn optimally in the school environment (Wibowo & Suryani, 2019).

Along with the development of technology, there are now various web-based design applications that are lighter and more accessible, one of which is Figma. Figma is a cloud-based UI/UX design application that allows real-time collaboration, has a user-friendly interface, and supports drag and drop features that make it very easy for users in the design process (Sari & Kurniawan, 2021). The use of Figma in the world of education, especially in vocational high schools (SMK), has been proven to improve students' graphic design skills and introduce them to the latest industrial technologies (Pratama & Mulyani, 2022).

However, the implementation of this application still faces obstacles, such as students' lack of understanding of the basic functions of Figma, and the lack of innovative learning methods that support practice-based learning. Therefore, a learning approach is needed that not only teaches the use of tools, but also encourages creativity and problem-solving.

One of the relevant methods to apply in graphic design learning is the ATM (Observe, Imitate, Modify) method. This method encourages students to observe existing designs, imitate the techniques used, and then modify the designs according to their respective ideas and creativity (Hamidah, 2020). This approach not only improves technical skills, but also trains students' critical and innovative thinking skills.

SMK Negeri 3 Medan as one of the leading vocational education institutions in the city of Medan needs to adopt technology-based and innovative learning approaches. Based on this

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background, the author conducted a study entitled "The Use of Figma Design Application with the ATM Method in Class X Students at SMK Negeri 3 Medan". This study aims to find out how effective the use of Figma is in improving students' design skills when combined with the ATM method, as well as contributing to the development of technology-based vocational learning methods in Indonesia.

METHOD

This research was carried out at SMK Negeri 3 Medan, which is located on Jalan STM No.12 B, Kampung Baru, Medan Kota, North Sumatra. The subjects of the study were 30 students in class X majoring in Software Engineering (RPL) who followed the process of introducing the Figma design application with the ATM (Observe, Imitate, Modify) method learning approach.

This research uses a qualitative descriptive approach, which aims to provide a comprehensive overview of the learning process, student learning experience, and results achieved during the activity. This approach was chosen so that the researcher can understand contextually and in-depth the effectiveness of the ATM method in supporting design skills using Figma. The data collection techniques used include:

a. Participatory observation of student activities during design learning sessions;
b. Semi-structured interviews with students and supervisors to explore their experiences and responses;
c. Documentation in the form of student design works made with Figma;
d. Analyze students' work to assess the development of skills and creativity.

Data were analyzed using data reduction techniques, data presentation, and qualitative descriptive conclusions, according to the data analysis model according to Miles & Huberman.

RESULTS AND DISCUSSION

A. Observation Stage (AMATI)

In the initial stage, students are given an example of an interface design that has been completed using the Figma application. The goal of this stage is for students to observe the visual and technical elements used in user interface (UI) design. The elements observed include layout structure, the use of frames, grids, typography, and the selection of colors and icons.

Figure 1. Students Enthusiastically Observe Design

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Observational Stage Observations:

a. The majority of students showed a high interest in the designs displayed, especially designs with attractive visuals.
b. Most students are able to identify basic elements such as shapes, colors, and text well.
c. About 15% of students have difficulty recognizing technical features such as frames, autolayout, and grid usage.

Challenges and Solutions at the Observation Stage

In the early stages of implementing the ATM method, namely the Observe stage, several challenges were found that hindered the effectiveness of the learning process. Some students still do not have good analytical skills in identifying basic design principles, such as visual balance, color contrast, and information hierarchy. This causes the observations made to tend to be passive and limited to the visual aspects of the surface only. The lack of experience with design software such as Figma exacerbates this condition, so some students only glance at the design presented without understanding the structure and essential elements that make up the appearance of the user interface (UI).

As a solution to these obstacles, teachers apply a scaffolding approach through the provision of structured observation guides. This guide is a reflective question directed at students to help them take a deeper look, for example: "What are the main elements of this design?", "How are the text and images laid out to grab the user's attention?", or "What features of Figma were used in the creation of this design?". In addition, teachers also show video tutorials and conduct direct demonstrations related to the design process in stages so that students can see the logical relationship between design elements. To strengthen understanding, students are asked to make a rough sketch of the observed design using paper media or digital drawing board features. These activities help activate early understanding and facilitate the transition from passive observation to active learning. This approach has been proven to increase students' attention and analytical acumen to design principles, as well as prepare them for the next stage of the ATM process, the Imitation stage.

B. Imitation Stage (TIRU)

This stage is the initial practice for students to reproduce designs that they have observed before. The goal is for students to understand how the features in Figma work first-hand, as well as strengthen their technical understanding of the UI design structure.

Steps:

a. Open a blank file or basic template in Figma.
b. Customize the layout according to the reference design.
c. Add visual elements such as text, icons, images, and shapes.
d. Imitate the color and typography combinations of the original design.
e. Implement additional features such as autolayout and prototyping where possible.

Observational Findings:

a. As many as 85% of students managed to replicate the design quite well, demonstrating an understanding of layout and visual elements.
b. The rest have technical problems, especially in distinguishing between frames and shapes.
c. Some students show initiative by experimenting with visual elements, although it is not yet time for modifications.

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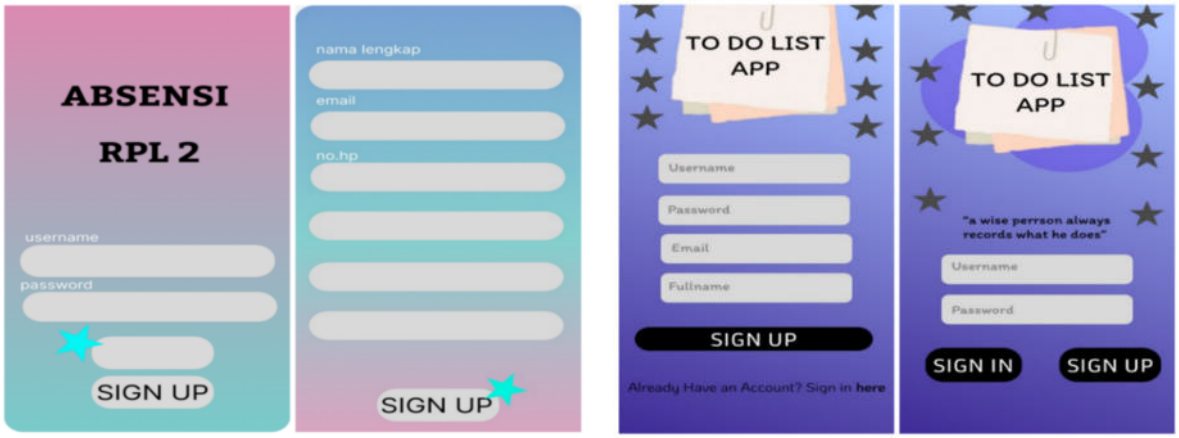

Figure 2. Student Work

Challenges and Solutions in Figma Learning Using the ATM Method

The implementation of the ATM (Observe, Imitate, Modify) method in the use of the Figma design application in the vocational school environment presents a number of significant challenges, especially in the aspects of mastery of technology and understanding of digital design concepts. One of the main obstacles found in this study was the students' initial adaptation to the interface and technical features of Figma. As a relatively new cloud-based design application in the world of education, Figma has a different working structure than traditional desktop applications. Some students experience confusion in understanding the use of basic features such as frames, shapes, as well as advanced features such as components, autolayouts, and interactive prototypes. This difficulty causes the learning process to be suboptimal, especially in the Imitation and Modification stage which requires technical precision and creativity.

In addition to the technical aspect, another challenge that arises is the low confidence and creativity of some students in exploring design ideas. Some students focus too much on imitation accuracy without understanding the aesthetic and functional principles underlying UI/UX design. This indicates that students' critical and innovative thinking skills still need to be further developed. Another factor that also affects is the limitation of supporting infrastructure, such as the quality of the internet connection and device specifications, which causes delays in accessing Figma's features, especially when conducting real-time collaboration.

To overcome these obstacles, this study recommends several learning strategies. First, teachers or facilitators provide structured jobsheets and short video tutorials as companions for students' independent practice. This approach has proven to be effective in helping students understand the technical steps of using Figma in stages. Second, the implementation of question and answer sessions and reflections after practice allows students to express their difficulties openly, as well as get direct solutions from teachers and peers. Third, group assignments are used to encourage collaborative learning, especially in solving problems with the use of advanced features. This collaboration not only improves technical skills, but also strengthens students' communication, problem-solving, and project management skills. Finally, the explicit integration of design principles in learning, such as visual balance, color contrast, and information hierarchy, is essential for design outcomes to be not only technically functional but also visually effective.

With this approach, Figma learning through the ATM method is not only a process of transferring technical skills, but also a means of developing creative character and contextual problem-solving in the realm of digital vocational education.

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C. Modification Stage (MODIFIKASI)

This stage requires students to adjust and develop designs based on previous cloned results. The main focus of this stage is the strengthening of creativity and the application of graphic design principles.

Modification Steps:

a. Change the colors, typography, and layout according to student preferences.
b. Add additional visual elements such as icons, illustrations, or images.
c. Apply interactive effects, shadows, and prototype animations.
d. Adapting the design into different themes or contexts (e.g. from formal to casual).

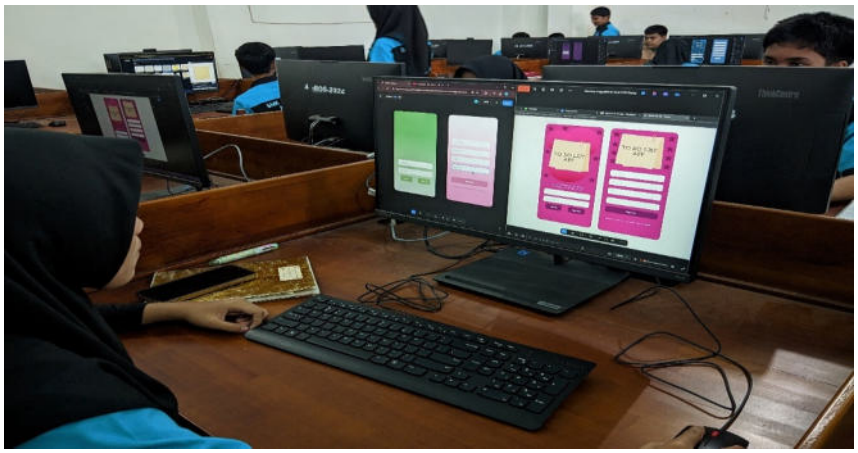

Figure 3. Students make modifications to the design given

Table 1. Quantitative Observation Results

Assessment Aspects	Before Observation	After Observation
Average student score (N=36)	77,03	87,19
Students with a < score of 75	5 person	2 person
Students with a score of > 90	6 person	17 person

Interpretation, Challenges, and Design Learning Solutions Using Figma with the ATM Method

The results of the implementation of the ATM (Observe, Imitate, Modify) method in learning design using the Figma application showed a significant improvement in students' graphic design skills. Based on the observations made, the majority of students are able to express their creativity independently, especially in the modification stage that encourages the exploration of user interface (UI) design. Students who have an initial understanding of design principles appear more confident and are able to produce complex, aesthetic, and functional works. This ability can be seen in the color selection, layout composition, and harmonious integration of design elements. This indicates that the ATM method is effective in building students' visual and technical thinking skills gradually.

Nevertheless, some challenges arise during the implementation of learning. Some students seem to be too careful in making modifications and tend to just imitate design examples without meaningful adjustments. This attitude is based on doubt and lack of confidence to experiment. In addition, there are obstacles in understanding the basic principles of design, such as color contrast and visual hierarchy, which have an impact on design quality that is disproportionate and

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uncommunicative. This lack of ability to process visual elements becomes an obstacle in the creation of works that are not only aesthetically appealing, but also functional in conveying design messages.

To overcome these obstacles, teachers provide pedagogical interventions through the provision of simple design examples that are then developed by students into more creative and personalized forms. Teachers also encourage students to present their work in front of the class and receive feedback openly from teachers and peers. This activity is part of reflective learning that strengthens confidence and self-evaluation skills. In addition, thematic challenges are provided to encourage exploration, such as changing formal designs to a more casual or playful version. Through this approach, students are more accustomed to experimenting, recognizing their own design styles, and expanding the visual insights needed in the world of professional design. Thus, the integration of the ATM method with the use of Figma not only builds students' technical competence, but also forms the character of creative learners who are adaptive to the development of digital design technology.

Discussion

In terms of technology mastery, about 95% of students have been able to operate Figma as a cloud-based design software. However, a small percentage of students still face technical obstacles such as unstable internet connections or inadequate device specifications. For this reason, teachers suggest using offline mode or lighter alternative applications during independent practice outside the classroom. In terms of understanding design principles, most students are able to understand aesthetic elements such as color and typography, but still do not master functional principles such as navigation, user flow, and information hierarchy. As a solution, teachers integrate design theory learning explicitly before students practice so that the concept understanding is more thorough. In terms of motivation and creativity, students who have an interest in the field of UI/UX design tend to show more active self-exploration. Meanwhile, students who lack confidence tend to just imitate without further innovation. For this reason, project-based learning and public presentation sessions are implemented to increase students' confidence and creativity.

The learning environment is also an important factor. Although classroom learning is quite effective, there needs to be support from independent learning through design communities and online platforms. The blended learning approach and the provision of digital learning resources such as video tutorials, portfolio examples, and reference articles are solutions to keep learning sustainable.

Overall, the use of the Figma application in learning graphic design with the ATM method has a positive impact on improving students' design skills. This approach bridges theoretical understanding and practical skills progressively, making it relevant to be applied to vocational education to face the challenges of the creative industry world.

CONCLUSION

Based on the results of the study, the use of the Figma application with the ATM (Observe, Imitate, Modify) method has been proven to be effective in improving students' design skills, starting from understanding basic principles, mastering features, to developing creativity in modifying designs. Supporting factors such as mastery of technology, learning motivation, and a conducive environment also strengthen learning success, although technical constraints and lack of advanced design understanding are still found. Therefore, it is recommended that there be intensive mentoring, the provision of adequate access to technology, the strengthening of design principle materials, and the application of collaborative methods to optimize student learning outcomes in Figma-based digital graphic design.

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