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The Use of Animated Drawing Applications as a Medium to Grow Self-Confidence in Elementary School Students' Character Drawing Abilities

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A B S T R A C T

The rapid development of digital technology has encouraged innovation in art education, particularly through interactive media that support students' creative and psychological development. This study aims to examine the role of the Animated Drawing application in enhancing elementary school students' self-confidence in drawing imaginative figures in fine arts learning. The research was conducted at UPTD SDN 1 Kepandean involving 41 fifth-grade students and employed a qualitative descriptive approach. Data were collected through participatory observation, in-depth interviews with students and teachers, and documentation of students' drawings and animated works. Data validity was ensured through triangulation, while data analysis followed the interactive model consisting of data reduction, data display, and conclusion drawing. The findings indicate an improvement in students' self-confidence after the use of the Animated Drawing application. Students showed greater willingness to display their artwork, increased pride in seeing their drawings transformed into animation, and higher enthusiasm during learning activities. The animation process reduced fear and embarrassment and encouraged freer expression of ideas. However, students' confidence in communicating learning difficulties to teachers remained moderate. Overall, the study concludes that Animated Drawing effectively supports self-confidence and creative expression in elementary art education.

1. Introduction

The wave of digital transformation over the past decade has swept across various aspects of life, including education. This technological development has significantly contributed to learning innovation, opening the door to previously unimaginable methods, including in fine arts subjects in elementary schools (Putri et al., 2024). This digital transformation has not only expanded access to diverse

learning resources, such as virtual art galleries or tutorials from international artists, but also introduced interactive media that can enhance students' learning experiences creatively and psychologically. Among these innovations, the Animated Drawing application stands out as a highly relevant technology. This application allows static drawings students' work with pencils or crayons on paper to be instantly transformed into moving animations. A previously rigid drawing of a dinosaur on paper can, through this technology, walk, roar, and even interact with its environment. This medium is considered to have great potential because it not only offers a pleasant "surprise factor" but also increases intrinsic motivation, active engagement, and most importantly, students' confidence in drawing and expressing their boundless visual imagination.

Self-confidence is a fundamental psychological aspect that greatly influences the process of learning fine arts, especially when students are asked to express themselves through visual works (Hidayat et al., 2021). In elementary school art classes, a silent drama often occurs where many students express deep doubts about their drawing abilities. This doubt is usually fueled by concerns that their work is not as good or complex as that of peers who are considered more "talented." This creates a frightening environment, where fear of judgment and social comparison stifles the courage to experiment. As a result, a wide gap arises between the abundant creative potential within students' minds and the courage to express it in concrete works. Furthermore, art learning practices in many elementary schools still tend to rely on traditional, one-way methods, where the teacher demonstrates and students imitate. This approach often overlooks digital technology as a learning medium capable of providing transformative experiences, particularly in enhancing students' self-confidence and creative experiences.

Numerous previous studies have demonstrated the extraordinary benefits of interactive digital media in the context of art learning. Sari and Pratiwi (2021a), for example, found that the use of digital media significantly increased students' participation, enthusiasm, and confidence in fearlessly expressing their visual ideas. Internationally, Smith et al. (2023), in their publication in ACM SIGGRAPH, explained technically and psychologically how Animated Drawing technology can provide a more vivid and satisfying visual experience for students. The process of seeing one's own work “come to life” fosters a sense of pride and a much deeper creative engagement compared to static drawings. Furthermore, research by Prayitno et al. (2024) shows that animation-based learning models are generally effective in increasing the frequency of drawing activities and the level of creativity in early childhood. Similarly, Hapsari and Wijayanto (2024) also emphasized that free drawing activities, without pressure to be perfect, play a vital role in fostering creativity and courage to express themselves in elementary school students.

However, these studies largely focus on more general aspects, such as developing the media itself, enhancing creativity as an output, or enhancing drawing activities as an indicator of engagement. None have specifically and in-depthly examined how animations produced directly from students' original work can act as a catalyst for increasing their confidence in drawing imaginative characters. The "magical" element where personal imagination manifests into movement and sound, and its

psychological impact on future drawing confidence, remains largely unexplored. Thus, there is a significant research gap regarding the use of student-based animation technology to support psychological aspects, particularly self-confidence, which is the foundation for long-term creative expression.

Based on this gap, this research occupies a crucial and innovative position in expanding previous research. It combines three key aspects rarely combined in a single study: (1) utilizing specific animation technology innovations (Animated Drawing) to bring students' visual works to life; (2) strengthening the psychological aspect of focus, namely self-confidence in drawing, not just creativity; and (3) direct application in the context of authentic fine arts learning in elementary schools, which have complex child developmental characteristics and are vulnerable to psychological influences. Therefore, this research is expected to provide theoretical contributions in the form of an integrated learning model and practical contributions in the form of guidance for teachers in effectively implementing this technology to support students' psychological well-being and creativity.

The main objective of this research is to analyze in depth how the use of the Animated Drawing application can increase students' confidence in drawing imaginative characters in fine arts learning in elementary schools. This analysis will examine changes before and after the intervention, through observation, interviews, and work analysis. Furthermore, this research also aims to describe changes in students' behavior and courage in expressing visual ideas after utilizing animation media based on their own work (Irmayu et al., 2024). This includes their courage to try more complex ideas, resilience in the face of mistakes, and their ability to tell stories about their work. Therefore, this research will provide a comprehensive overview of the role of digital animation technology not only as a tool, but also as a partner in supporting students' creative and psychological expression.

This research was conducted at the UPTD SDN 1 Kepandean, taking a sample of 41 students in grade 5A. This location was chosen strategically because UPTD SDN 1 Kepandean has become one of the pioneering schools that already has coding and artificial intelligence subjects in its curriculum. This condition makes the school an ideal "living laboratory." The students are no longer technologically illiterate, so the research can focus on the psychological and creative impacts without being distracted by basic technical obstacles. This research was carried out as a form of real-life application of artificial intelligence that collaborates harmoniously with art learning, demonstrating how technology does not replace the human touch, but rather strengthens it.

2. Methodology

This study used a qualitative, descriptive approach to gain an in-depth understanding of the use of the Animated Drawing application in fostering student confidence when drawing imaginative characters. This approach was chosen because it was relevant to the research objectives, which focused on exploring

students' learning experiences, emotional responses, and behavioral changes during the use of digital media in fine arts learning. The subjects were fifth-grade students, purposively selected based on their readiness for technology-based learning. The learning process involved drawing imaginative characters, which were then animated using the Animated Drawing application to observe changes in student engagement and confidence.

Data were collected through participant observation, in-depth interviews with teachers and students, and documentation of visual works. The research instruments included learning activity observation sheets, semi-structured interview guides, and documentation formats for the drawings and animations. Data validity was strengthened through technical triangulation. Data analysis followed the interactive model of Miles, Huberman, and Saldaña, which includes data reduction, data presentation, and conclusion drawing. This model enabled researchers to identify patterns of behavioral change and forms of increased student confidence during the learning process.

3. Results and Discussion

Classroom Context and Initial Learning Conditions

This research was conducted in class V-A of UPTD SDN 1 Kepandean, involving a total of 41 students consisting of 21 female students and 20 male students. The class represents a heterogeneous learning group in terms of academic ability, drawing skills, and levels of self-confidence. Based on preliminary observations, students showed a high interest in fine arts learning, particularly drawing activities, yet many of them still experienced hesitation and insecurity when asked to present their work publicly. Several students tended to compare their drawings with those of their peers and perceived themselves as “less talented,” which affected their willingness to express ideas freely. This condition illustrates that although students possess strong creative potential, psychological barriers especially self-confidence remain a major challenge in elementary art education.

Prior to the implementation of the Animated Drawing application, fine arts learning in this class primarily relied on conventional instructional methods. The teacher commonly used demonstration-based instruction, followed by individual student practice using paper, pencils, and crayons. Digital media had rarely been integrated into art lessons, and technology was mostly utilized in other subjects such as coding or basic computer literacy. As a result, art learning tended to emphasize product imitation rather than creative exploration and emotional engagement. Feedback was generally limited to teacher comments, while peer appreciation occurred spontaneously and was not systematically encouraged. This learning environment provided limited opportunities for students to experience innovation, surprise, or a sense of achievement that could strengthen their confidence in visual expression.

Implementation of Learning Activities During the Research

The learning process during the research was designed to integrate traditional drawing activities with digital animation technology in a structured and supportive manner. At the initial stage, students were introduced to the learning objectives and encouraged to draw imaginative characters freely without worrying about perfection. The teacher emphasized that every drawing was valuable and that originality was more important than technical accuracy. This stage aimed to reduce students' anxiety and create a psychologically safe atmosphere before introducing digital media.

In the next stage, students created character drawings using conventional tools such as pencils, markers, and crayons. They were given the freedom to choose themes, characters, and visual styles based on their imagination. During this process, the teacher acted as a facilitator, providing encouragement rather than correction. Observations showed that students appeared more relaxed and focused, as they were aware that their drawings would later be transformed into animated forms, giving their work a new and exciting purpose.

After completing the drawings, students were guided to use the Web Animated Drawing application. The teacher demonstrated how to upload images, adjust character positions, and select animation movements. Figures 2, 3, and 4 illustrate the stages of accessing the web interface, uploading drawings, and selecting animation options. Students then practiced independently with assistance provided when needed. This stage marked a critical shift from static to dynamic visual expression, which became a central moment in building students' emotional engagement.

Once the animations were generated, students were invited to observe and reflect on the results. Many students expressed excitement, laughter, and surprise when seeing their drawings move for the first time. The teacher facilitated short reflection sessions, allowing students to share their feelings and experiences. Peer appreciation was encouraged through positive comments and applause, which helped strengthen social support and mutual respect within the classroom.

Data collection was conducted simultaneously throughout the learning process. Observational data were gathered using structured observation sheets focusing on indicators of self-confidence, such as willingness to show work, emotional expressions, and engagement. Interviews were conducted after the learning activities to capture students' subjective experiences, while documentation included students' drawings, animations, and classroom photos (Figure 1). This integrated approach ensured that cognitive, emotional, and social dimensions of learning were comprehensively recorded.

Figure 1. Results of student character drawings

Table 1. Interview Questions for Students

No.	Interview Questions
1	How do you usually feel when asked to draw in art class?
2	Did you enjoy drawing activities before using the Animated Drawing application? Why or why not?
3	How did you feel when you saw your drawing turn into an animation for the first time?
4	Do you feel more confident showing your drawings or animations to your friends? Please explain.
5	Does the Animated Drawing application make drawing more interesting for you? In what way?
6	After using this application, do you feel more confident trying new or imaginative characters?
7	How do your friends' responses to your animation affect your confidence?
8	Do you feel comfortable asking the teacher for help when you have difficulties? Why or why not?
9	Do you want to continue using the Animated Drawing application in future lessons?
10	What improvements or additional features would you like to see in this application?

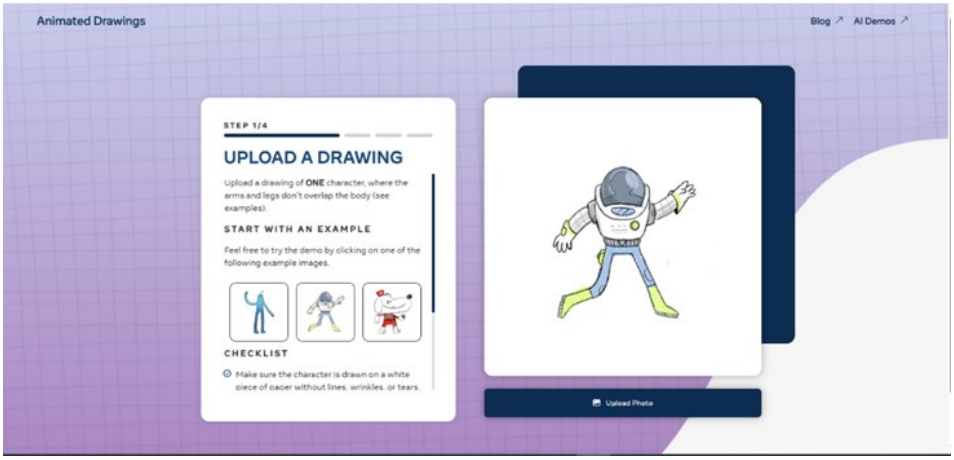

Figure 2. Initial View of Web Animated Drawing

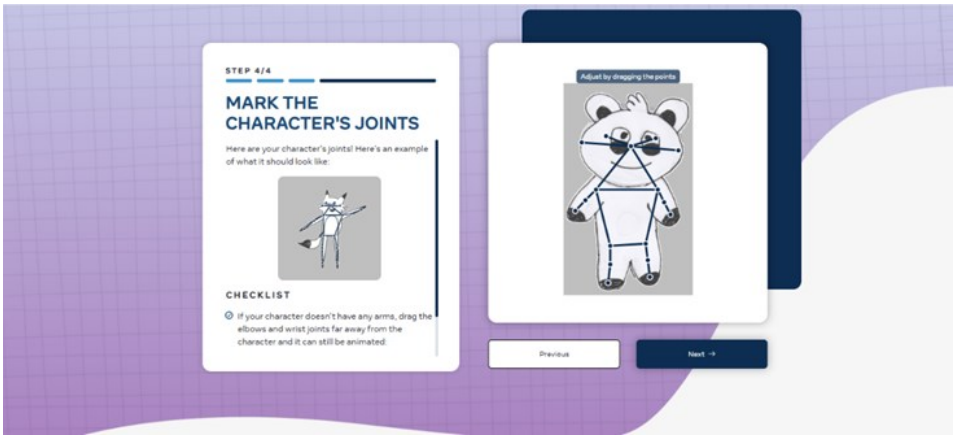

Figure 3. Image Upload View in Web Animated Drawing

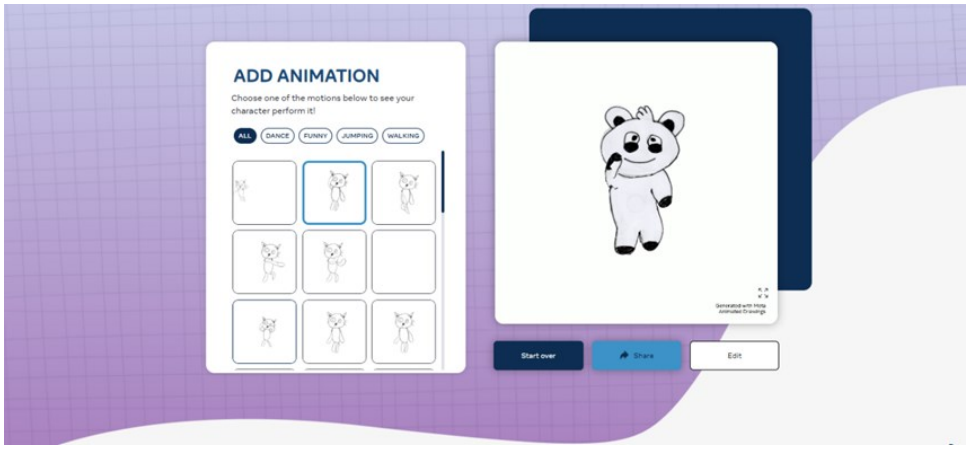

Figure 4. Display of animated image selection in Web Animated Drawing

Overview of Student Self-Confidence Based on Observations

Based on the observation sheet, the general level of student self-confidence after using the Animated Drawing application ranged from high to very high. The overall average self-confidence score reached 3.56 out of 4, with 35 of 41 students (±85.4%) in the "very high" category, and 6 students (±14.6%) in the "high" category. No students fell into the low or medium categories.

When viewed by indicator, almost all aspects showed an average score above 3.40, indicating a strong consistency in self-confidence patterns:

a) Courage to show drawings before being turned into animations had an average of 3.46, indicating that most students were confident enough to show their work, even though it was not yet animated.
b) Enthusiasm for participating in drawing activities was also high, with an average of 3.54, indicating that the use of digital media not only influences self-confidence but also emotional engagement in the learning process.
c) Expressions of enjoyment while using the app averaged 3.54, consistent with the observation that students seemed to enjoy the experience of seeing their drawings "brought to life" by the app.

Indicators directly related to pride and self-confidence showed very strong results. For the items:

a) "Students expressed pride when seeing their drawings become animated,"
b) "Students appeared more confident than before using the app," and
c) "Students felt more confident expressing themselves through drawings after using the app,"

32 of the 41 students (±78%) scored 4 (strongly agree/very strongly agree), and the remainder scored 3. No students scored 1 or 2 on these key indicators. This indicates that almost all students perceived positive changes in their sense of pride, courage, and self-expression after engaging in the Animated Drawing activity.
Furthermore, indicators related to willingness to present animations in front of the class also showed a positive trend, with 24 students (±58.5%) scoring the highest score and 17 students (±41.5%) scoring 3. This means that the majority of students not only felt more confident internally but were also willing to express their work to others.

Another social dimension observed was appreciation of peers' work. Twenty-two students (±53.7%) scored 4 and 19 students (±46.3%) scored 3 for the indicator "appreciating others' work." These findings suggest that the use of Animated Drawing not only boosts individual self-confidence but also fosters a more supportive classroom climate, where students appreciate each other's work. The only indicator with a relatively low score was "students actively ask the teacher when they have difficulties," with an average score of 3.29. Most of the students were at score 3, with only 13 students at score 4 and 1 student at score 2. This shows that even though self-confidence in working has increased, the courage to verbally express difficulties to the teacher still requires further strengthening.

Changes in Self-Confidence Based on Student Interviews

The interview results provide a more detailed picture of the shift in students' subjective experiences before and after using the Animated Drawing application. Before using the application, 31 of 41 students (±75.6%) stated they enjoyed drawing, but on the other hand, 18 students (±43.9%) admitted often feeling afraid of their drawings being bad. Regarding their feelings when asked to draw in front of their peers:

a) 22 students (±53.7%) felt confident.
b) 13 students (±31.7%) stated they were indifferent,
c) and 6 students (±14.6%) reported feeling embarrassed/lack of confidence.

Furthermore, before this activity, only about 73.2% reported being brave enough to show their drawings to their teacher or friends, while the remainder tended to hide their work. Several students described their initial feelings as "nervous, embarrassed, afraid of drawing incorrectly" or afraid that their work would be considered bad by their peers. These findings indicate that despite high interest in drawing, psychological barriers such as fear of judgment, embarrassment, and

concerns about the quality of their work remain, holding students back from performing with greater confidence.

Regarding media use, 33 students (±80.5%) stated that the application was easy to use. When first seeing their character drawings transformed into animation, 36 students (±87.8%) reported feeling happy, while only 5 reported feeling indifferent. Their narratives describe a sense of amazement and joy as their initially static drawings came to life and moved. After learning that their drawings could be animated,

a) 38 students (±92.7%) reported increased enthusiasm for drawing, and
b) 38 students (±92.7%) also reported greater pride in their drawings.

This suggests that Animated Drawing serves as a trigger for intrinsic motivation, making drawing more meaningful and enjoyable. Indicators explicitly related to self-confidence showed significant changes:

a) 37 students (±90.2%) felt more confident when their drawings were animated.
b) 39 students (±95.1%) stated they wanted to show their animations to their friends.
c) 36 students (±87.8%) stated they were no longer embarrassed to try drawing characters.

This means that Animated Drawing not only influences perceptions of the quality of their work but also reduces shyness and increases their courage to perform. The social context in the classroom also contributes significantly to building self-confidence. A total of:

a) 32 students (±78.0%) reported receiving appreciation from their peers in the form of praise or positive comments on their animations.
b) 39 students (±95.1%) stated that peer appreciation made them more confident.

Thus, this application not only functions as a technological tool but also as a trigger for positive social interactions that strengthen students' self-confidence through recognition and appreciation from their peers.
In terms of sustainability, almost all students expressed interest in continuing to use the application:

a) 38 students (±92.7%) wanted to use Animated Drawing again to draw other characters.
b) 40 students (±97.6%) felt that the application made drawing more enjoyable.
c) 36 students (±87.8%) stated that after this activity, they practiced drawing more often at home.
d) 37 students (±90.2%) considered Animated Drawing suitable for use in fine arts lessons.

Several students mentioned the most enjoyable aspects, such as seeing their drawings "move," "turn into cute animations," or "dance." In their suggestions for improvement, they suggested adding sound effects, more movement variations, and

opportunities to draw with friends, indicating that they found the experience positive and wanted to develop it further.

Synthesis of Findings

When synthesized, the observation and interview data show a consistent pattern:
1. Students' confidence in drawing imaginative characters increased significantly, as indicated by:
   a) Average observation scores in the high–very high category.
   b) A large proportion of students reported being more confident, more willing to show their work, and less embarrassed to try drawing after using Animated Drawing.

2. The visual and emotional experience of transforming drawings into animations served as a psychological turning point for students: they felt happy, proud, and encouraged to practice drawing more frequently.

3. Appreciation from peers and a supportive classroom atmosphere reinforced the positive impact of the medium. Animated Drawing functioned not only as a technological tool but also as a social mediator that facilitated mutual appreciation of visual works among students.

4. However, the courage to actively ask questions to the teacher when experiencing difficulties was still relatively moderate compared to other indicators, thus potentially becoming an area of strengthening in the next phase of intervention.

The research results show that the use of the Animated Drawing application can increase students' self-confidence in drawing imaginative characters. Based on observations, students appeared more confident in displaying their work, showed pride in their drawings, and were actively engaged during the learning process. These findings align with Bian et al. (2025), who stated that technology-based digital visual media can enhance students' self-efficacy through interactive learning experiences. Furthermore, Chen and Gao (2025) emphasized that the integration of digital technology in art learning contributes positively to students' self-confidence in expressing visual ideas. In the national context, these findings also support the study by Sari and Pratiwi (2021b), which demonstrated that interactive digital media can increase students' participation and self-confidence in art learning.

The increase in students' self-confidence in this study can be explained through the concept of creative self-efficacy. According to Valquaresma et al. (2022), creative self-efficacy is formed when students experience real success in the creative process. In this study, seeing static drawings transformed into animation provided a direct mastery experience that strengthened students' confidence in their drawing abilities. This result is consistent with Vieira et al. (2025), who found that creative self-confidence increases when students can observe concrete outcomes of their ideas. In addition, Denee et al. (2024) reported that self-efficacy in visual arts plays a crucial role in fostering the courage to express oneself among elementary school students.

Interview results revealed that students experienced pleasure and pride when their drawings moved in animated form. This positive emotional response contributed to reduced shyness and fear of judgment. Smith et al. (2023a) and Mutmainnah et al. (2025) explained that animated drawing technology enhances children's emotional engagement because visual works are perceived as alive and meaningful. Furthermore, Hu and Li (2025) confirmed that the use of digital drawing software increases students' confidence in their artistic abilities. These findings are also consistent with the systematic review conducted by Han and YanPiaw (2025), which concluded that digital tools in arts education positively affect learner engagement and confidence.

Changes in students' behavior from hesitant and shy to more courageous in drawing imaginative characters indicate that animation media can create a psychologically safe learning environment. Prayitno et al. (2024) found that animation-based learning increases children's motivation and courage in drawing. National research further supports that self-confidence is closely related to imaginative drawing creativity among elementary school students and confirms that art learning environments that allow visual exploration foster positive attitudes and creative courage. Social factors also contributed to the increase in students' self-confidence. Peer appreciation of animated works strengthened students' courage to present their artwork. This finding aligns with Mou (2024), who reported that visual peer feedback in digital-based art learning enhances students' self-confidence and engagement. Positive social interactions in visual arts learning therefore play a significant role in strengthening creative self-efficacy through recognition and appreciation of students' work.

Students' sustained interest in learning was reflected in their desire to continue using the Animated Drawing application and practicing drawing independently. Hu and Li (2025) stated that positive experiences in digital art learning increase students' behavioral intentions to continue creating. This finding is consistent with Santos et al. (2025), who confirmed that artificial intelligence–based technology in art education supports sustainable learning motivation and long-term engagement in artistic activities (Winters et al., 2024). However, observations showed that students' willingness to ask teachers for help when encountering difficulties remained relatively low compared to other indicators of self-confidence. Santos et al. (2025) emphasized that technology integration in art learning must be accompanied by adequate pedagogical scaffolding. This view is reinforced by Bers et al. (2025), who argued that developing creative self-confidence through technology requires active teacher guidance so that students not only feel confident in their work but also have the courage to communicate the challenges they face.

4. Conclusion

This study concludes that the use of the Animated Drawing application is effective in enhancing elementary school students' self-confidence in drawing imaginative characters within fine arts learning. The research objective was successfully achieved, as the findings demonstrate clear positive changes in students' attitudes

and behaviors. Students who initially showed hesitation and self-doubt became more willing to experiment, present their work, and express visual ideas confidently. The transformation of static drawings into animated forms created a psychologically safe learning environment that encouraged creativity, enjoyment, and emotional engagement. The increase in self-confidence was closely connected to students' sense of achievement and positive learning experiences. Seeing their own drawings come to life fostered pride and motivation, which supported sustained interest in drawing activities both inside and outside the classroom. In addition, peer appreciation played an important role in strengthening students' courage to showcase their artwork, indicating that social interaction is a key element in building creative self-confidence.

However, the study also identified a limitation in students' confidence to communicate learning difficulties to teachers. This finding suggests that while animation technology can effectively support confidence and creativity, it must be accompanied by structured pedagogical guidance. Teacher support remains essential to help students reflect on challenges, seek assistance, and develop balanced confidence. Future research is recommended to explore long-term impacts of animation-based learning on students' artistic development and to examine instructional strategies that better integrate technological media with reflective teacher student interaction.

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