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Augmenting Beginner's Drawing Skills with Decontextualized Methods

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Drawing, as a carrier of culture and a form of artistic expression, has always played an important role throughout human history. It also serves as a means to enhance emotional well-being. But learning to draw presents significant challenges for beginners, as it demands strong observational skills and a solid understanding of the structural relationships of drawing targets. In recent years, with the development of digital art technologies, many artists are increasingly using software tools such as Procreate, which offers a variety of brush styles to meet diverse drawing needs. However, the use of such professional-level software usually requires professional guidance and a lot of practice, which is difficult for beginners to get started. Meanwhile, in the field of drawing education, the drawing skills are generally improved through extensive practice, using traditional drawing guidance methods may not cultivate students' observation ability, such as direct tracing and grid methods. Although these methods can produce good drawing results, they ignore the cultivation of observation ability. Existing methods, such as inverted drawing, can effectively avoid cognitive bias caused by over-familiarity, but lack systematic guidance from overall outline to local details.

This study presents a decontextualized drawing method designed to help beginners improve their drawing skills. In this method, the reference image is first inverted and fully occluded to show the contour lines. Beginners need to draw it first and unable to observe the details to ensure that their attention is focused on the proportions and contours of the image. After the contours are drawn, the occlusion is removed to show the full reference image, but keep inverted and the beginner continues to observe the details of the drawing. By dividing the drawing of the contours and details into two stages, the beginner is guided through a sequence of observation from the whole to the local, improving drawing skills.

To verify the effectiveness of this approach, a controlled experiment was conducted in which participants were asked to complete the drawing task using four different methods: the traditional upright drawing method, the inverted drawing method, the upright occlusion drawing method, and the proposed decontextualized drawing method. The experiment used eight reference images of different complexity, and each participant drew on four high-complexity and four low-complexity reference images using each of the four methods. The drawing quality was analyzed in terms of contour accuracy and similarity through subjective evaluation by five expert users with art experience and objective algorithm-based evaluation.

The experimental results show that the proposed method significantly improves the observation and drawing skills of beginners, especially in conditions where the reference image is of high-complexity. Although the traditional upright drawing method received higher subjective evaluation scores, the proposed method outperforms other methods in the case of high-complexity drawing. Compared to other drawing instruction methods, it helps beginners to first focus on the overall contour, determine the contour and then observe the local details to avoid being distracted by internal details too early.

Participants' post-experiment interviews also indicated that the proposed method provided a different viewing experience, making it easier to focus on the contours before the details. The comparison experiments confirmed that, compared to the other three methods, the proposed method enables beginners to observe and construct contours and details more effectively, while other drawing methods usually require extensive practice to achieve similar improvements.

In conclusion, this study proposes a decontextualized drawing method that guides beginners to first draw contours and then refine details, helping them to improve their observation and drawing skills. Experimental results show that the method is particularly effective for highly-complex drawings, allowing beginners to better capture structure and details. Compared to other methods, the decontextualized drawing method approach provides a clearer sequence of observation and reduces premature focus on details, providing an effective way for beginners to improve their drawing skills.