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Enhancing Peer Engagement and Creative Thinking in Graphic Design Class through Figma: An Action Research

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Abstract*— This action research investigates the transformative potential of Figma, a cloud-based design platform, in graphic design education, focusing on peer engagement and creative thinking. The evolving graphic design field requires contemporary teaching methods, aligned with the UK Professional Standards Framework (UKPSF) and adaptable to the digital landscape. Using a qualitative approach, the research follows three stages: initial interviews to understand classroom dynamics, in-class observations of Figma's implementation, and post-experiment questionnaires for student feedback. Preliminary findings indicate Figma positively impacts peer engagement by providing real-time collaboration, aligning with the UKPSF's emphasis on interaction and feedback. Figma also fosters creative thinking due to its user-friendly interface and rich design features, aligned with the UKPSF's recognition of technology's role in learning. However, challenges include technical issues and the need for pedagogical adaptation. Balancing creativity and efficiency are crucial for successful technology integration. In summary, this research explores Figma's role in enhancing peer engagement and creative thinking in graphic design education, emphasizing innovative pedagogical approaches aligned with the UKPSF, promoting professional development for digital learning.

***Index Terms*—creative thinking, Figma, graphic design education, peer engagement.**

I. INTRODUCTION

In the rapidly evolving field of graphic design, traditional teaching methods may fall short in promoting essential skills such as creative thinking and peer engagement. Aligned with the UK Professional Standards Framework's areas of designing and planning learning activities (A1), Teaching and supporting learning (A2), and Developing effective learning environments (A4), this research investigates the potential of Figma, a cloud-based digital design platform, in enhancing these skills1.

Figma's real-time collaborative features provide an ideal platform for students to interact, offer instant feedback, and work together on design projects, which aligns with the UKPSF's focus on providing learners with constructive feedback (A3). It also encourages creative thinking by providing an avenue for students to experiment with design ideas, aligning with the UKPSF's core knowledge requirement acknowledging the role of technologies in learning and teaching (K4).

The primary research question is: Can Figma be effectively used to enhance peer engagement and stimulate creative thinking in graphic design classes? If so, how can this be achieved? To explore these questions, Figma was incorporated into the module IND002, Introduction to Industrial Design, as a tool for material delivery and as a platform for individual and group project work. Data was collected through interviews, observations, and questionnaires, and was subsequently analyzed. The findings of this action research could contribute to the creation of innovative teaching strategies that utilize digital tools to improve learning outcomes. This would align with the standards of the UK Professional Standards Framework (UKPSF), demonstrating professional values such as acknowledging the diverse ways individuals learn (V1), promoting participation and equality of opportunity (V2), and integrating research and scholarship into teaching and learning practices (V3).

II. LITERATURE REVIEW

The significance of peer engagement and creative thinking in graphic design education cannot be overstated. According to the UKPSF, these elements are integral to effective teaching and learning in higher education, as outlined in K2 (Advance HE, 2011).

Peer engagement fosters a collaborative learning environment, which is crucial in graphic design education. It encourages students to share ideas, critique each other's work, and learn from one another, thereby enhancing their understanding of design principles and techniques (Baepler et al., 2016). This collaborative approach aligns with the UKPSF's A1-A4 descriptors, which emphasize the importance of designing and planning learning activities that promote interaction and feedback among learners.

Creative thinking, on the other hand, is the lifeblood of graphic design. It allows students to generate unique design solutions and push the boundaries of their creativity (Cropley, 2001). The UKPSF's K2 descriptor acknowledges the importance of fostering creativity in learners, highlighting the need for teaching methods that stimulate creative thinking.

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Traditional teaching methods, such as lectures and tutorials, have been the mainstay of graphic design education. However, studies have shown that these methods may not be as effective in fostering peer engagement and creative thinking (Laurillard, 2013). They often promote a passive learning environment, where students are mere recipients of knowledge rather than active participants in the learning process.

In contrast, digital platforms like Figma offer a more interactive and engaging learning experience. Figma is a cloud-based design tool that allows multiple users to collaborate on a design project in real-time (Figma, 2021). This feature makes it an ideal platform for promoting peer engagement in graphic design classes. It provides a virtual space where students can work together on design projects, share ideas, and give and receive feedback instantly.

However, the use of digital platforms in education also presents challenges. These include technical issues, such as connectivity problems and software glitches, and pedagogical issues, such as the need for teachers to adapt their teaching methods to the digital environment (Selwyn, 2011). These challenges align with the UKPSF's A5 descriptor, which emphasizes the need for teachers to engage in continuing professional development to enhance their pedagogical skills and adapt to changes in the teaching and learning environment.

In conclusion, the literature suggests that while traditional teaching methods have their merits, digital platforms like Figma offer promising alternatives for enhancing peer engagement and creative thinking in graphic design education. However, their effective implementation requires careful planning and continuous professional development on the part of teachers.

III. METHODOLOGY

The methodology for this study was rooted in a qualitative approach, aligning with the UK Professional Standards Framework's (UKPSF) A5 descriptor, which emphasizes the importance of incorporating research, scholarship, and the evaluation of professional practices into teaching and learning (Advance HE, 2011). The action research was systematically divided into three stages: (1) A pre-experiment interview to understand the existing classroom dynamics; (2) In-class observation of Figma's implementation and its impact on student engagement and creative thinking; and (3) A post-experiment questionnaire to capture students' perceptions and experiences of using Figma in their design work.

An interview was conducted as the initial stage of this action research to gather in-depth insights into the existing challenges within the design classroom at Xi'an Jiaotong-Liverpool University (XJTLU). The interviewee, three students enrolled in the module IND002 (Introduction to Graphic Design), provided valuable first-hand perspectives. The findings from this interview highlighted two significant issues in the current design classroom setup: a lack of peer engagement and insufficient encouragement for creative thinking. These insights underscore the need for innovative teaching strategies that can foster greater collaboration and creativity, echoing the research aims to investigate the potential of Figma as a tool to enhance these aspects.

The implementation of Figma in the classroom was a crucial part of the methodology. The tool was introduced at the beginning of IND002, and students were given a brief tutorial on how to use it. Throughout the semester, students used Figma for course delivery, various design projects, both individually and in groups. This provided them with ample opportunities to explore the tool and understand its potential for enhancing peer engagement and creative thinking.

The primary data collection method was the use of student questionnaires. These questionnaires were designed to gather students' feedback on their experiences using Figma in the classroom at the end of the semester. They included both open-ended and Likert scale questions, which allowed for a comprehensive understanding of students' perceptions and experiences (Creswell & Creswell, 2017). The questionnaires were administered online, ensuring that all students had an equal opportunity to participate and share their experiences.

The data collected from the questionnaires was analyzed using thematic analysis, a method that identifies, analyzes, and reports patterns within data (Braun & Clarke, 2006). This analysis helped to understand the impact of Figma on students' learning experiences and its potential benefits and challenges in a graphic design classroom.

This methodology aligns with the UKPSF's emphasis on engaging in continuing professional development and incorporating research and scholarship into teaching and learning. It also reflects the framework's commitment to using evidence-informed approaches in higher education, as outlined in V3 (Advance HE, 2011).

IV. RESULTS

At the end of the IND002 (Intro to Industrial Design) module, a total of 20 students voluntarily participated in the research by submitting answers to a questionnaire. Participants were recruited from the entire cohort of 50 students enrolled in the module IND002. The results of the study were derived from the student questionnaires, providing valuable insights into the students' experiences using Figma in the graphic design classroom. These findings align with the UK Professional Standards Framework's (UKPSF) V3 descriptor, which emphasizes the use of evidence-informed approaches in teaching and learning (Advance HE, 2011). Figure 1, 2, 3 shows the numbers and scales of participants perceptions about learning by Figma in regarding to (1) peer engagement; (2) creative thinking; (3) learnability & usability.

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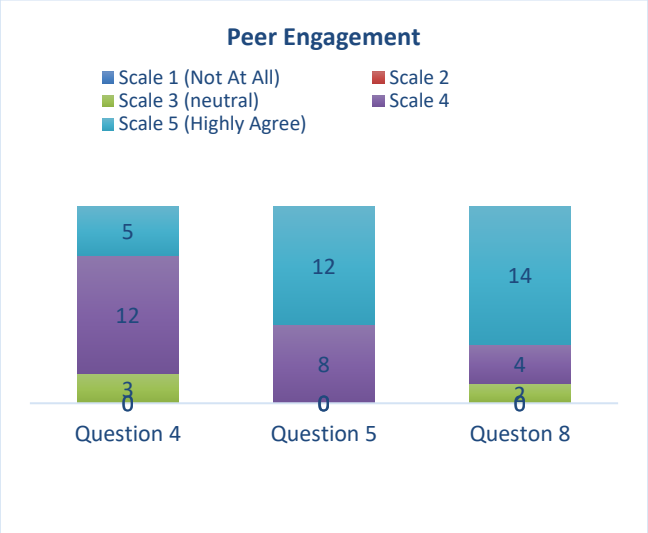

Figure 1

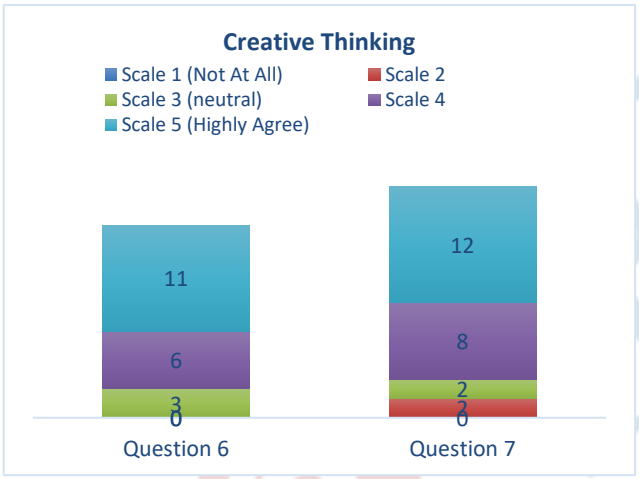

Figure 2

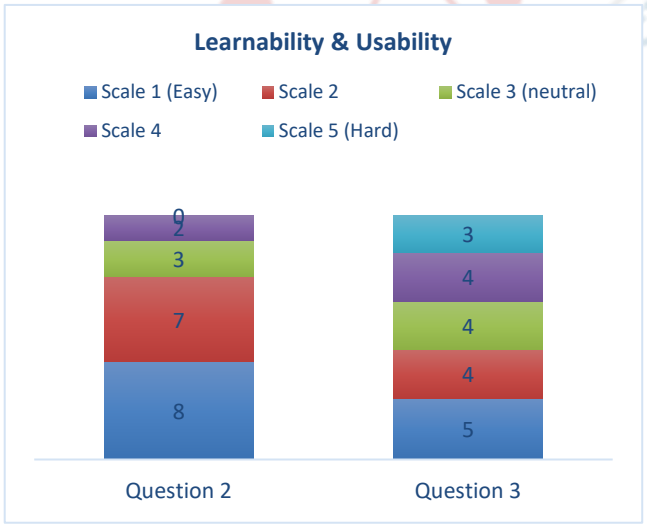

Figure 3

A significant majority of the students reported that Figma enhanced peer engagement in the classroom. They appreciated the real-time collaboration feature of Figma, which allowed them to work together on design projects, share ideas, and give and receive feedback instantly. This finding supports the literature on the benefits of peer engagement in learning (Baepler et al., 2016).

In terms of creative thinking, many students believed that Figma provided a conducive environment for exploring and expressing their creativity. They noted that the tool's user-friendly interface and diverse design features encouraged them to experiment with different design ideas and push the boundaries of their creativity. This aligns with the literature on the importance of creative thinking in graphic design education (Cropley, 2001).

However, some students also reported challenges in using Figma. These included technical issues, such as connectivity problems and software glitches, and difficulties in adapting to a digital platform. Furthermore, The introduction of such new digital tools requires teachers to effectively balance creativity and efficiency in the learning environment. This means educators must be adept at facilitating a classroom where the creative process can thrive, while also ensuring the efficient use of time and resources. The ability to manage this balance is key to successfully integrating new technology into the curriculum and maximizing its potential for enhancing student learning outcomes.

Overall, the results suggest that Figma has the potential to enhance peer engagement and creative thinking in graphic design classes. However, its effective implementation requires careful planning and ongoing support to address the potential challenges.

V. ANALYSIS

The analysis of the results provides a deeper understanding of the impact of Figma on peer engagement and creative thinking in graphic design classes. This analysis aligns with the UK Professional Standards Framework's (UKPSF) A2 and V2 descriptors, which emphasize the importance of teaching and supporting learning and promoting participation in higher education (Advance HE, 2011).

The positive feedback from students regarding the enhancement of peer engagement through Figma supports the literature on the benefits of collaborative learning (Baepler et al., 2016). It suggests that Figma's real-time collaboration feature can foster a more interactive and engaging learning environment, which is crucial in graphic design education. This finding also aligns with the UKPSF's A1-A4 descriptors, which emphasize the importance of designing and planning learning activities that promote interaction and feedback among learners.

The students' perception of Figma as a tool that encourages creative thinking aligns with the literature on the importance of creativity in graphic design (Cropley, 2001). It suggests that digital platforms like Figma can provide a conducive environment for students to explore and express their creativity, thereby enhancing their learning experience.

However, the challenges reported by some students highlight the need for teachers to adapt their teaching methods to the digital environment and provide ongoing support to students. This aligns with the UKPSF's A5 descriptor, which emphasizes the need for teachers to engage in continuing professional development to enhance their pedagogical skills and adapt to changes in the teaching and learning environment (Advance HE, 2011).

In conclusion, the analysis of the results suggests that while Figma has the potential to enhance peer engagement and creative thinking in graphic design classes, its effective implementation requires careful planning, ongoing support, and continuous professional development on the part of teachers.

VI. FUTURE ACTION

The findings of this study provide valuable insights for future action in implementing Figma in the graphic design classroom. These actions align with the UK Professional Standards Framework's (UKPSF) A4 descriptor, which emphasizes the importance of developing effective learning environments and approaches to student support and guidance (Advance HE, 2011).

Firstly, the positive feedback from students regarding the enhancement of peer engagement and creative thinking through Figma suggests that the tool should continue to be used in the classroom. However, to maximize its benefits, teachers should consider incorporating more collaborative design projects into the curriculum. This would provide students with more opportunities to work together, share ideas, and give and receive feedback, thereby enhancing their learning experience (Baepler et al., 2016).

Secondly, to address the challenges reported by some students, teachers should consider providing additional support and training on how to use Figma. This could include creating tutorial videos, organizing workshops, or providing one-on-one assistance to students who are struggling with the tool. This aligns with the literature on the importance of providing adequate support to students when implementing digital platforms in education (Selwyn, 2011).

Finally, teachers should engage in continuous professional development to enhance their pedagogical skills and adapt to the digital learning environment. This could include attending workshops or conferences on digital teaching tools, participating in online learning communities, or conducting further research on the effective use of digital platforms in education. This aligns with the UKPSF's A5 descriptor, which emphasizes the need for teachers to engage in continuing professional development (Advance HE, 2011).

VII. REFLECTION

Reflecting on the research process, there were several challenges, surprises, and successes that shaped the study. This reflection aligns with the UK Professional Standards Framework's (UKPSF) V4 descriptor, which encourages acknowledging the wider context in which higher education operates (Advance HE, 2011).

One of the challenges was the technical issues encountered by some students when using Figma. This highlighted the need for additional support and training for students when implementing digital platforms in education (Selwyn, 2011). It was a reminder that while digital tools can enhance learning, they also present new challenges that need to be addressed.

A pleasant surprise was the positive feedback from students regarding the enhancement of peer engagement and creative thinking through Figma. This reinforced the literature on the benefits of collaborative learning and creativity in education (Baepler et al., 2016; Cropley, 2001). It was encouraging to see that the use of Figma in the classroom had a positive impact on students' learning experience.

The success of the study was the valuable insights it provided for future action. It highlighted the potential of Figma to enhance peer engagement and creative thinking in graphic design classes and provided guidance for its effective implementation in the future.

Reflecting on the study, it has deepened my understanding of the complexities of teaching and learning in the digital age. It has shown me the potential of digital tools to enhance learning, but also the challenges they present and the need for continuous professional development to adapt to the changing educational landscape.

VIII. CONCLUSION

The action research provides valuable insights into the potential of Figma to enhance peer engagement and creative thinking in graphic design education.

The positive feedback from students regarding their experiences using Figma in the classroom suggests that the tool can foster a more interactive and engaging learning environment. It can encourage students to work together, share ideas, and give and receive feedback, thereby enhancing their understanding of design principles and techniques (Baepler et al., 2016).

The study also highlights the potential of Figma to stimulate creative thinking in students. It provides a conducive environment for students to explore and express their creativity, thereby enhancing their learning experience (Cropley, 2001).

However, the study also underscores the challenges of implementing digital platforms in education, such as technical issues and the need for additional support and training for students. It emphasizes the need for teachers to engage in continuous professional development to enhance their pedagogical skills and adapt to the digital learning environment (Selwyn, 2011).

In conclusion, the study contributes to the field of graphic design education by highlighting the potential of Figma to enhance peer engagement and creative thinking. It provides

guidance for its effective implementation in the classroom and underscores the importance of continuous professional development for teachers in the digital age.

REFERENCES

[1] Advance HE. (2011). The UK Professional Standards Framework for teaching and supporting learning in higher education.
[2] Baepler, P., Walker, J. D., & Driessen, M. (2016). It's not about seat time: Blending, flipping, and efficiency in active learning classrooms. Computers & Education, 78, 227-236.
[3] Cropley, A. (2001). Creativity in education and learning: A guide for teachers and educators. Kogan Page Publishers.
[4] Figma. (2021). About Figma. Retrieved from https://www.figma.com/about/
[5] Laurillard, D. (2013). Rethinking university teaching: A conversational framework for the effective use of learning technologies. Routledge.
[6] Selwyn, N. (2011). Schools and schooling in the digital age: A critical analysis. Routledge.
[7] Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative Research in Psychology, 3(2), 77-101.
[8] Creswell, J. W., & Creswell, J. D. (2017). Research design: Qualitative, quantitative, and mixed.