Exploring Effective Pedagogies and Creative Animation Tools for Filipino Multimedia Arts Students

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Abstract - The study intends investigating and finding appropriate pedagogies and creative resources to suit the needs and potentials of Filipino students in multimedia arts, with special emphasis on animation learning. The aim of this study is to fill the gap between traditional teaching approaches and the ever-changing needs of the animation field, since is possible to recognize the country's long cultural background and the richness of creative talent. This paper, through the exploration of novel approaches in animation education, seeks to equip the Filipino learners with the tools that allow them to use both their artistic and technical skills to create a new generation of creative and technical animators who will generate cultural and economic development for the Philippines. The findings of this study will offer important information to teachers, policymakers, and industry professionals, which, in turn, will lead to the improvement of the quality and relevance of animation education in the Philippines.

Index Terms- Animation Education, Multimedia Arts, Filipino Students, Creative Tools, Effective Pedagogies

I. INTRODUCTION

Animation has become a powerful medium for storytelling, entertainment, and even educational tools. In the Philippines, where creativity and artistry abound, animation education holds immense potential to nurture young talent and contribute to the country's cultural and economic landscape.

Filipino animators possess a wealth of creativity, artistic talent, and a scientific mindset. These qualities enable them to produce high-quality, innovative work. They excel in various roles within the animation industry, including artists, directors, and educators. One approach to animation education is to introduce students to traditional animation techniques, such as hand-drawn animation and stop-motion animation (Garcia, L., & Masigan, C., 2001). These techniques provide a foundation in the principles of animation and foster a deep understanding of the craft. Additionally, incorporating modern technologies such as digital animation software and 3D animation tools can broaden students' horizons and expose them to the latest industry trends.

This paper explores effective pedagogies and creative tools that can enhance animation education for Filipino students. A mixed-methods research design will be employed to comprehensively explore the effectiveness of animation education in the Philippines. This approach combines qualitative and quantitative methods to provide a holistic understanding of the study.

A. Research Objective

This research aims to investigate and identify effective pedagogical approaches and creative tools that can significantly improve animation education for Filipino students. By exploring various teaching methods, instructional strategies, and resources, the study seeks to equip Filipino students with the skills and knowledge necessary to excel in the field of animation. Furthermore, the research aims to contribute to the development of a robust and competitive Filipino animation industry by providing students with the tools and support they need to become proficient and innovative animators.

To investigate and find useful, effective pedagogies and creative tools that can improve animation education for Filipino students and help them become proficient and innovative animators.

B. Research Questions

This research, titled "*Exploring Effective Pedagogies and Creative Animation Tools for Filipino Multimedia Arts Students*," seeks to explore effective teaching methods and creative tools for animation education in the Philippines while aligning with these questions:

1. What are the most effective pedagogical approaches and strategies for teaching animation skills, considering traditional, project-based, and game-based methods?
2. How can animation curricula be designed to effectively balance theoretical knowledge, traditional animation techniques, and digital tools to prepare students for the industry?
3. What are the essential competencies and skills for animation educators, and how can professional development programs support their ongoing learning to keep pace with industry trends?

By understanding how to effectively teach animation skills and tools, this research can help inform the development of animation education programs that inspire creativity, critical thinking, and a deeper appreciation for the art form.

The study also discusses the ongoing debate surrounding the use of computer animation in education. While there is potential for computer animation to enhance learning, there is a lack of research on how to effectively design animations for educational purposes. Additionally, the debate continues regarding the overall effectiveness of computer animation in educational contexts. Further exploration and understanding of the impact of computer animation on learning outcomes are necessary to fully harness its potential benefits.

C. Literature Review

Animation is about telling stories with pictures. To make good animations, students need to learn how to write stories and understand visual language. Activities like storyboarding, scriptwriting, and character design can help them with this.

C.1. Brief Animation History

The history of animation goes beyond film, with early animators creating movies without cameras or recording technology. The first animated sequence on standard picture film was J. Stuart Blackton's The Enchanted Drawing in 1900. Animation evolved with Émile Cohl's Fantasy in 1808, Winsor McCay's Gertie the Dinosaur in 1914, and Walt Disney's Steamboat Willie in 1928, popularizing Mickey Mouse and sound in animated films.

Throughout history, various animation devices have been developed to depict active scenes of animated characters, people, objects, and events. The magic lantern, developed in 1603, used a mirror to project illustrations through glass slides, making it the first instance of "moving pictures." The thaumatrope, a 19th-century optical toy, used the "persistence of vision" to move images. The zoetrope, a spinning cylindrical version, presented images in sequential phases of motion for multiple viewers. The kineograph, a small book of drawings, animates scenes when flipped quickly. The praxinoscope, introduced in 1877, replaced the zoetrope with an inner circle of angled mirrors, (A Guide to the History of Animation, 2024).

Sustainable Development Goal

UNICEF. (2023) SDG 4, which aims to ensure inclusive and equitable quality education for all, aligns well with the potential of animation as an effective pedagogical tool. Animation can engage diverse learners, promote inclusive learning environments, and enhance learning outcomes by making complex concepts accessible and memorable. By developing 21st-century skills like creativity and problem-solving, animation can empower learners, especially marginalized groups, to reach their full potential. Through visually compelling storytelling and interactive experiences, animation can contribute to a more equitable and just education system.

(Tschang, F. T., & Goldstein, A., 2010) examines the outsourcing of animation work to the Philippines and the development of the country's animation industry. Providing the historical overview of the industry's growth, decline, and recent recovery, and analyzes the capabilities and organizational models of key animation studios in the Philippines. The paper mentioned that the country is a popular place for

animation companies to make shows in the 1980s and 1990s. This was because it had low costs, tax breaks, and was close to the United States. However, there were ups and downs. In the early 2000s, many animation studios in the Philippines closed because of problems in the global economy and lost customers.

Goel, D., & Upadhyay, R. (2017) provides an overview of the use of animation in advertising. It explains the concept of animation and the process of designing an animation. They discuss different styles of animation such as the Walt Disney style, the Warner Brothers style, and the Japanese anime style. It highlights the advantages of using animation in advertising, such as its ability to capture attention, enhance recall and recognition, and improve attitudes towards the ad and the brand. Finally, this discusses the status of animation in Indian advertising and concludes with limitations and research and managerial implications.

According to Westcott, T. (2011), the global animation industry, led by major US studios, has seen significant growth. However, European, Canadian, and Asian studios are also making substantial contributions, with a growing focus on original content. While traditional animation principles like squash and stretch, timing, and anticipation remain fundamental, computer animation has revolutionized the industry. This technology offers immense potential for education, enabling visualization of complex concepts, illustration of dynamic processes, and enhancement of language learning. Despite its promise, further research is needed to optimize the use of computer animation in education and maximize its impact on student learning (Musa, S., et al., 2013).

The study also discusses the ongoing debate surrounding the use of computer animation in education. While there is potential for computer animation to enhance learning (Ayres, P., et al, 2019), there is a lack of research on how to effectively design animations for educational purposes. Additionally, the debate continues regarding the overall effectiveness of computer animation in educational contexts. Further exploration and understanding of the impact of computer animation on learning outcomes are necessary to fully harness its potential benefits.

Experiential Learning Theory

Experiential learning theory, as proposed by (Kolb, David A., 1984), emphasizes the importance of learning through experience. This theory aligns perfectly with the framework's emphasis on hands-on projects, industry partnerships, and real-world applications. By actively engaging in the animation process, students can learn by doing, reflecting on their experiences, and applying their knowledge to new challenges. This experiential approach fosters deeper understanding, critical thinking, and problem-solving skills, ultimately leading to more effective learning and skill development.

Creative tools, such as animation software, digital drawing tablets, and 3D modeling software, can enhance the learning experience by providing students with the tools to bring their ideas to life. By combining these tools with experiential learning, students can develop their creativity, problem-solving skills, and technical proficiency.

Technology Integration

Technology plays a crucial role in modern animation education. Access to affordable and appropriate animation software and hardware is essential for empowering students to explore their creativity and technical skills. By integrating technology into the learning process, educators can democratize animation education, enhance the learning experience, and prepare students for the industry. Providing access to free or low-cost software, ensuring availability of computer labs and digital devices, and online resources can significantly improve student engagement and learning outcomes. As stated by (Stadlinger, B., et al, 2021), equipping students with industry-standard software skills and providing opportunities for real-world projects, educators can bridge the gap between academia and industry.

II. METHODOLOGY

A. Type of Research

To further investigate on exploring the effective pedagogies and creative tools for animation, the

study utilized a mixed-method design approach of quantitative and qualitative research methods. According to Dawadi (2021), researchers might benefit from using both paradigms for their respective strengths through mixed-method research: positivism for objective, quantitative proof, and interpretive reasoning for deeper contextual meaning. Multiple-choice questions are designed to assess specific aspects in this research topic, such as learning experience and outcomes.

A focus group interview with educators in animation was conducted serving as a qualitative method, it gathers valuable insights on effective pedagogies and creative tools for animation. This approach gives researchers the freedom to approach issues from several perspectives, which results in more workable answers and enhances accuracy and trustworthiness even further.

B. Population and Sample

The study conducted a focus group interview to gain insights regarding the effective pedagogies and creative tools for animation. The researcher had an informative meeting with a group of college instructors handling the subject of animation. These educators are currently teaching in one well-known educational institution along Morayta in Manila, Philippines. They provided valuable information, experiences, and perspectives related to the effective pedagogies and creative tools for animation, serving as supplementary information for this research.

Meanwhile, this study conducted a survey to gain insights from multimedia arts students aged 19 to 22 years old. The survey is administered electronically through Google Forms and participants recruited via in-class distribution. The researcher emphasizes the importance of participation from students who are in the field of multimedia arts through coordination with the Institute's animation instructors.

C. Data Analysis

In this study, the selected respondents for the survey are from s multimedia arts students aged 19 to 22 years old. According to Peng, C. (2016, March), the document addresses the need for reform in teaching methods, curriculum, and teacher training to better align with industry requirements. It highlights the mismatch between the number of animation graduates and the industry demand, leading to unemployment. To create an engaging and effective animation learning environment, we can employ a variety of strategies. Active learning techniques, such as hands-on projects and group collaboration, will be used to keep students actively involved in the learning process.

Animation instructors are well-positioned to understand the questions and provide insights based on their student's experiences. According to the interview, they are responsible for encouraging students' metacognitive skills, enabling them to analyze their work, set goals, and continuously improve their animation skills. The study suggests that animation-based teaching is most effective for students who already have a good understanding of the subject matter. Students with little prior knowledge may not benefit from this approach. It's recommended to improve their background knowledge first before using animations in teaching (Kaushal, R. K., et al, 2019).

III. RESULT

Qualitative Method

A focus group interview with Multimedia Arts Instructors (5) as respondents. These respondents are mostly taught at the tertiary level. Some of them have been teaching animation for 2 years to 11 years. One major tool in animation they used in teaching is the Toon Boom Harmony Animation.

A. What are the potential benefits of using animation in education?

By incorporating engaging visuals and storytelling techniques, animation can captivate students and enhance their learning experience. Visual learning, facilitated by animation, aids in cognitive processing and comprehension, making complex concepts more accessible.

B. How do you measure the success of your students' learning?

Measuring student success in animation can be assessed through various factors. One key metric is

their ability to consistently apply the principles of animation to their projects and to demonstrate their understanding and implementation of animation principles, serve as a comprehensive measure of their learning and growth.

C. What strategies do you use to engage students in the learning process?

To effectively engage students in the learning process of animation, a combination of strategies can be employed. Practical exercises and projects allow students to actively apply theoretical knowledge and encouraging students to experiment with visual illusions and creative storytelling can foster their imagination and problem-solving skills, leading to more engaging and impactful learning experiences.

D. What are the common misconceptions or difficulties students face in learning animation?

Common challenges faced by animation students often stem from a lack of understanding of fundamental animation principles and some students mistakenly believe that traditional animation techniques are obsolete in the digital age, overlooking the valuable insights and foundational skills they provide.

E. How do you address the diverse learning needs of your students?

To accommodate diverse learning needs in animation education, cooperative learning strategies, which mirror real-world industry practices, can further enhance the learning experience by fostering collaboration, problem-solving, and creativity among students with varying abilities.

F. What improvements or additions would you like to see in educational animation tools or platforms?

To elevate animation education, exploring various animation techniques, particularly from renowned anime productions, can offer unique insights and innovative approaches.

Qualitative Method

In analyzing and interpreting the survey from the computed sample size of 94 Filipino multimedia arts respondents, who are currently living and enrolled in one of the institutes in Sampaloc, Manila, Philippines, the close-ended questions will be utilized. Each statement will be interpreted according to the range and the corresponding verbal interpretation.

Table 1. Summary survey computed of close-ended questionnaire

Questions	Number	Responds
1. Do you enjoy watching animation / cartoon?	98.9%	Yes
2. Do you prefer 2D or 3D animation?	73.4%	3D
3. Do you find animated content entertaining?	98.9%	Yes
4. Do you believe animated content can be educational?	100%	Yes
5. What genres of animation do you prefer?	74.5%	Fantasy
6. Have you used animation tool in your before like Toon boom Animation, Adobe Animate or other software's?	79.8%	Yes
7. Have you experience using Toon boom animation?	73.4%	Yes
8. Do you find Toon Boom's interface intuitive and easy to	58.7%	No

navigate?		
9. Which subjects do you think animation is most effective for?	69.1%	Arts
10. Do you believe animated educational content can cater to different learning styles?	98.9%	Yes
11. Do you think animation can enhance the learning experience?	92.6%	Yes
12. What types of animation do you find most effective for educational purposes?	45.7%	2D Animation
13. How do you prefer animation to be taught?	83%	Lab Activity

IV. DISCUSSION

To effectively teach animation, a comprehensive approach is necessary. By incorporating culturally relevant pedagogy, experiential learning, and technology integration, we can create engaging and effective learning experiences. Integrating indigenous knowledge and multilingual learning fosters a sense of cultural pride and identity among students, while hands-on projects and industry partnerships provide valuable practical experience. Technology integration, including accessible tools and digital literacy, equips students for the innovation in learning animation.

Keeping the Animation Educators Updated

As the review on the interviews from educators, animation pedagogue must stay current with industry trends to provide relevant training. Continuous professional development, collaboration with industry professionals, and the development of resources like whitepapers and surveys can help educators keep their skills and curriculum aligned with industry standards.

Learners Preferred Laboratory Activity in Animation

According to the result of conducted survey on Table 1, lab activities provide a hands-on approach to learning animation, allowing students to bridge the gap between theory and practice. By working with animation software, they develop crucial technical skills such as character rigging, animation, modeling, and rendering. Lab activities empower students to express their creativity and individuality through animation. By experimenting with various techniques and styles, they can develop a distinctive artistic voice. These projects also serve as valuable additions to their portfolios, strengthening their credentials for future career endeavors.

CONCLUSION

To enhance the growing animation industry in the Philippines, we must implement a comprehensive approach to teaching animation education by incorporating cultural values into the curriculum. We can motivate students to use their heritage as its beautiful work and create unique stories that resonate with Filipino audiences. Experiential learning, such as internships and joint ventures, provide students with valuable hands-on and industry contacts.

Also, it is important to embrace technology. Equipping the classrooms with state-of-the-art animation software and hardware gives students the technical skills they need to compete globally. Effective assessment techniques, including functional and summary assessments, can help monitor student progress and provide timely feedback.

To address challenges such as resource shortages and teacher training, we must invest in teacher development programs and collaboration with administrative partners. By working with animation studios and production houses, we can ensure that teachers are exposed to industry trends and best practices. Additionally, alternative funding mechanisms and exploration of public private partnerships could help secure

the necessary resources to support animation education programs.

By addressing these key areas, we can empower Filipino students to become competent animators who contribute to the growth of the Philippine animation industry. This not only fosters creativity and innovation but also strengthens the country's cultural identity and economic development.

For Future Researchers

Future research could delve deeper into the specific impact of cultural integration and multilingual learning on student engagement and achievement in animation education. Additionally, exploring the effectiveness of various technology tools and their impact on student learning outcomes would be beneficial. Further research on the role of industry partnerships in providing practical, real-world experiences for students is also necessary. By addressing these areas, future research can contribute to the ongoing development and improvement of animation education in the Philippines.

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