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RESEARCH ARTICLE

DEVELOPMENT OF GAMIFIED LEARNING MODULES FOR CHILD RIGHTS EDUCATION

*Tushar Tiwari and Shreya Dubey

Indian Institute of Technology Kharagpur, West Bengal, India, 721302

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*Corresponding author: Tushar Tiwari

ABSTRACT

This research article explores the development and impact of a gamified platform aimed at increasing legal literacy and awareness about children's rights among children. Despite significant legal frameworks established to protect and promote children's rights, awareness and understanding of these rights among children still need to be improved. The gamified platform seeks to bridge this gap by making legal education accessible, engaging, and age-appropriate through interactive games and storytelling. This study assesses the platform's effectiveness in improving knowledge, attitudes, and behaviours regarding children's rights.

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INTRODUCTION

In the present era, knowing and understanding the law is crucial, even for children. A comprehensive understanding of rights and obligations is critical, given the many regulations that govern various aspects of life, ranging from online speech to treatment in educational institutions. However, it is undeniable that studying the law can be tedious or challenging to comprehend, particularly for young individuals who prefer engaging in recreational activities or socialising with peers. That is the point at which the concept of incorporating games to make studying enjoyable arises. Games serve a dual purpose since they provide entertainment and facilitate learning without conscious awareness. Using games, we may cultivate an environment where learning about the law becomes stimulating and an activity that children eagerly anticipate. Studies have demonstrated that when learning resembles a form of play, children exhibit heightened focus, derive pleasure from the experience, and retain a more significant amount of the information they acquire. We have devised an innovative project. We are incorporating an exclusive component into a well-liked game that focuses on imparting legal knowledge to children in an enjoyable manner. Our objective is to ensure the well-being and development of children. Develop a strong sense of self-advocacy and grasp the principles governing the world by harnessing the transformative

potential of gaming. Introducing our innovative method of acquiring knowledge about the law promises to be enjoyable, captivating, and highly beneficial for all children.

LITERATURE REVIEW

Gamification in Education: Recent studies have emphasized the potential of gamification to enhance learning experiences. Gamification applications in e-learning have shown significant benefits for motivation, user interaction, and social effects, with familiar elements like points, badges, and leaderboards proving effective (1). Another review corroborates these findings, noting the positive attitude of educational stakeholders towards gamification and its ability to increase student motivation and engagement (2).

Children's Rights Education: Research on children's rights education via game-based activities suggests that such interventions can place individual rights at the centre of children's self-awareness, promoting ethical reasoning and quality of life improvements (3). UNICEF's discussion on child rights in online gaming also highlights the opportunities and challenges for children in digital environments, emphasizing the need for rights awareness in these spaces (4).

Gaps and Opportunities: While the literature indicates positive outcomes from gamification in education, more specific research needs to be done on its impact on legal

literacy and children's rights awareness. This gap presents an opportunity for the proposed platform to contribute new insights and influence policy and practice in children's rights education. In conclusion, the literature supports gamification as an effective educational tool and under-reports the importance of children's rights education (5). However, the specific application of gamification to enhance legal literacy among children in India is an area ripe for exploration and development. The proposed research aims to fill this gap and provide evidence-based recommendations for future initiatives.

Motivation: Many children lack awareness of their fundamental rights, resulting in severe consequences. An example of a widespread problem is the occurrence of prejudice in schools, where children belonging to vulnerable populations are frequently deprived of access to education. These incidents not only infringe upon the children's entitlement to education but also sustain patterns of poverty and social marginalization. Furthermore, the absence of knowledge of children's rights results in significant infringements, such as child labour, trafficking, and abuse. According to reports, a substantial number of children in India experience abuse, exploitation, hunger, and disease despite the existence of legislative measures aimed at safeguarding them. These concrete instances emphasize the pressing need to tackle the deficiency in legal knowledge among adolescents. The proposed gamified platform seeks to directly address these challenges by revolutionizing the method of delivering legal education to the younger generation. The platform aims to utilize the captivating qualities of games to provide an interactive and pleasurable learning experience for understanding rights. This technique is unique and aligns with youngsters' cognitive and cultural surroundings. The application aims to empower children by improving their comprehension of legal rights, enabling them to advocate for themselves and others.

Research Objective: This research aims to develop and assess a gamified platform to educate children about their legal rights. This platform will incorporate gamification principles to create a dynamic and engaging learning environment tailored to be culturally relevant and appropriate for various age groups, ensuring the content is resonant and accessible. A secondary yet equally important goal is to evaluate the platform's effectiveness in enhancing legal literacy and awareness among children. This evaluation will measure changes in knowledge, attitudes, and behaviours related to children's rights after interacting with the platform. The achievement of these objectives is expected to empower children through education, helping them become informed and active participants in their communities. Additionally, the research aims to set a precedent for applying gamification in other legal and rights-based education areas, potentially transforming the educational and advocacy landscape.

Research Questions: The study's research questions are designed to evaluate the effectiveness of a gamified platform in enhancing legal literacy among children in India. These questions explore the influence of gamification on children's learning outcomes, particularly concerning their legal rights. The research seeks to determine if the gamified approach aids in the long-term retention of knowledge about children's

rights. It also examines the levels of engagement and motivation that the platform elicits from children as they learn about their rights. Additionally, the study looks for observable changes in behaviour that might indicate an increased awareness and practical application of legal rights in the daily lives of children interacting with the platform. Educators' perspectives on the platform's ability to instruct children on their rights are also considered, providing professional insights into its effectiveness. Lastly, the scalability and adaptability of the platform for broader implementation are assessed, which is crucial for its potential widespread use. These questions aim to provide a comprehensive understanding of the platform's impact on children's legal literacy and to identify areas for further improvement and scholarly exploration, reflecting a commitment to creating educational content that is engaging, culturally sensitive, and transformative.

METHODOLOGY

Design and Development: The development of the gamified platform is a nuanced process that marries educational content with interactive game mechanics and a user-friendly interface, all tailored to children's cognitive abilities and cultural contexts (6). At the outset, educators and legal experts collaborate to identify the fundamental legal rights and principles for children to comprehend. This curriculum forms the educational backbone of the game, ensuring that it is entertaining, informative, and relevant to the children's everyday lives. Game designers then take the helm, conceptualizing how these legal rights can be seamlessly woven into the gameplay. They create levels that introduce specific legal concepts through scenarios and challenges that children can relate to, ensuring that the learning experience is as engaging as it is educational (7). The user interface designers complement this by crafting a visually appealing, intuitive, and age-appropriate interface. They use vibrant colours, easy-to-read fonts, and straightforward navigation to make educational content accessible and engaging for young users. The final and most critical step in the development process is iterative testing with children from the target demographic. This testing is crucial for gathering feedback on the game's appeal, comprehension, and educational impact. Based on this feedback, the team collaborates to refine the game, adjusting content, mechanics, and UI design to maximize learning outcomes and engagement. This comprehensive approach aims to create an educational game that entertains and imparts valuable knowledge about legal rights tailored to children's cognitive levels and cultural context.

Technology Stack: The technological framework for developing the gamified educational module, which aims to improve legal literacy among children, is carefully selected for its robustness, flexibility, and comprehensive support. The Unity game engine stands as the foundation for this project. It is renowned for its ability to craft compelling 2D and 3D gaming experiences bolstered by thorough documentation and powerful interactive content creation capabilities. C# is the chosen programming language due to its compatibility with Unity, facilitating an efficient and potent development process (8). Visual assets are crafted using Adobe Photoshop and Illustrator for intricate 2D graphics and vector imagery, while

Blender is utilized for 3D modelling and animations, breathing life into scenarios and characters. Backend functionalities are managed via Firebase, which seamlessly integrates with Unity to offer real-time database management, user authentication, and analytics. Code versioning is managed using Git and hosted on GitHub, ensuring streamlined code revisions, collaborative development, and progress tracking (9). Unity Analytics is also employed to track user engagement and performance metrics, aiding in the continuous improvement and fine-tuning of the educational content. This selection of technology is deliberate, aiming to create a high-calibre, captivating, and meaningful educational game that effectively imparts knowledge of legal rights to the young audience.

Implementation: The pilot phase of the gamified platform is an essential component in assessing its efficacy in imparting knowledge about rights to children. This phase will involve selecting schools and community centres from various Indian locales, encompassing urban and rural settings. The initiation of this phase requires active engagement with stakeholders, including educators, community leaders, and parents, to secure their endorsement and clarify the platform's goals. Facilitators, such as teachers, will receive training to adeptly navigate children through the platform's interactive games and educational modules (10). These facilitators will monitor the sessions throughout the implementation, ensuring all necessary resources are available for the children. Monitoring of the platform's usage will be a continuous process during the pilot phase, with requisite support provided promptly. Comprehensive feedback from stakeholders gathered via surveys, interviews, and focus group discussions will be pivotal in evaluating the platform's user-friendliness and influence on the children's knowledge and perceptions. This feedback will be critical in fine-tuning the platform's content, design, and technological aspects in preparation for an expanded rollout (11). The pilot phase is designed to confirm that the platform is instructive, engaging, culturally sensitive, and easy to use, thereby laying the groundwork for a successful wider deployment.

Evaluation: The gamified platform's influence on children's comprehension and perspectives regarding their rights will be assessed using quantitative and qualitative research methodologies. Quantitative analysis will be performed through surveys and quizzes, which will serve as the primary instruments for collecting data on enhancing children's knowledge and the evolution of their attitudes before and after engaging with the platform. These tools will be crafted to be accessible and culturally considerate, ensuring relevance to the children's experiences (12). For qualitative evaluation, focus group discussions will be orchestrated to delve into the children's viewpoints and sentiments. These sessions will be facilitated by professionals trained to foster a dialogue that is both candid and constructive (13). The composition of the focus groups will reflect the intended audience's diversity, and the discussions' structure will be conducive to a supportive atmosphere, enabling children to express their thoughts and experiences freely. This dual approach will yield a thorough understanding of the platform's impact, documenting not only the quantifiable advancements in knowledge but also the nuanced changes in attitudes and behaviours, which suggest a profound assimilation of the rights-based education offered by the platform (14,15). This evaluation method aligns with the

ongoing research aimed at developing educational content that is captivating and transformative for children throughout India.

RESULTS AND DISCUSSION

The anticipated outcomes of the proposed gamified platform, aimed at enhancing legal literacy among children in India, are grounded in theoretical expectations and supported by literature on educational gamification. The platform is projected to significantly improve children's understanding of their legal rights, with expected increases in knowledge retention and positive shifts in attitudes. High engagement metrics are also forecasted, reflecting the platform's engaging nature. Favorable feedback from both children and educators is anticipated, particularly regarding the platform's interactivity and user-friendly design. Behavioural changes, such as increased advocacy and discussions about rights, are expected to indicate a more profound comprehension and application of the learned concepts. The platform's design promises scalability and adaptability, facilitating potential widespread implementation. While empirical results are pending, the theoretical framework suggests that the gamified approach holds promise for transforming legal literacy education for children, setting a foundation for future empirical validation and research.

CONCLUSION

This research paper has explored the innovative potential of a gamified platform to enhance legal literacy among children in India. The theoretical framework and related studies suggest that such a platform can significantly improve knowledge retention, engagement, and motivation in learning about legal rights. While empirical data from the platform's actual use is not yet available, the anticipated outcomes based on existing literature are promising. The platform's design, which incorporates principles of gamification tailored to children's cognitive levels and cultural contexts, is expected to make learning about legal rights an interactive and enjoyable experience. The adaptability and scalability of the platform suggest that it could be effectively implemented across various regions, potentially transforming legal literacy education for children. As the platform moves from concept to reality, future research will focus on gathering empirical data to validate the anticipated outcomes. The insights gained from this study will contribute to the ongoing discourse on using innovative educational tools to empower children, ensuring they become informed and active participants in their communities. Ultimately, the research underscores the importance of engaging educational approaches in fostering a generation that is aware of their rights and equipped to uphold them.

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