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Emote, Buy, Enjoy: Mapping the Intensity of Emotions for Virtual Skins with Plutchik's Wheel

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ABSTRACT

The abstract (approximately 150 to 250 words) should briefly describe the background, methods, results and conclusions of your research. It should be written in a single paragraph using single line spacing, Virtual skin significantly influences players' engagement and purchasing decisions in the constantly evolving mobile gaming landscape. This study explores the emotional intensity that virtual skin in PlayerUnknown's Battlegrounds (PUBG) Mobile evokes. It uses Plutchik's Wheel of Emotion to measure these responses and their influence on players' purchasing intentions and visual enjoyment. A quantitative survey was implemented to gather data from 204 participants and use statistical analysis to show the frequency of emotion intensity appearing towards the virtual skin elements. The Emotion Wheel visually categorises human emotions by intensity and similarity. Helping individuals describe their feelings improves self-awareness and emotional management. In addition, its vast emotional vocabulary makes communicating sentiments and comprehending others simpler. Close emotions are similar, whereas opposed emotions are more contrasted. In order to map the emotions of the participants in this study, only one polar opposite emotion—the intensity of Disgust to Trust—was examined. This research suggests that virtual skin can evoke diverse emotions, including Trust and Disgust, through elements such as colour, style, uniqueness, texture, and theme. These emotional responses substantially determine a player's acceptance or rejection of a virtual skin. Furthermore, a significant correlation exists between the intensity of these emotions, the level of visual enjoyment the user experiences, and their intent to purchase. The study underscores the importance of emotive design in virtual items, highlighting its potential to enhance user experience and loyalty by catering to aesthetic preferences and emotional connections. These insights offer developers valuable guidance for optimising virtual skin to increase players' engagement and retention. Times New Roman, 11pt, italic, justify and A4 format. Do not include reference citations in the abstract.

Keywords: *Emote, virtual skin, Plutchik's Wheel Emotion.*

1 INTRODUCTION

Virtual skin is one of the cosmetic modifications that alter the look of characters or things in mobile games. It has become a substantial component of the gaming industry's economic framework. These virtual items have revolutionised players' interactions with games, providing a customised gaming experience that transcends basic gameplay into a digital self-expression mode. In Malaysia, the

expansion of mobile gaming has highlighted virtual skins, showcasing both local cultural aesthetics and international trends. This phenomenon encompasses personalisation and incorporates aspects of social status and communal affiliation inside the gaming realm. The market for virtual skins is expanding, propelled by the rising number of players and the popularity of mobile gaming platforms such as PlayerUnknown's Battlegrounds (PUBG) Mobile.

Aesthetic virtual skins, albeit lacking practical value, attract gamers significantly. These skins do not augment the player's skills or provide any competitive advantage, yet they are still widely coveted for their visual appeal. Players often assert that virtual skins enhance their pleasure in the game, providing a visually pleasing experience that makes gaming more captivating. Colour, texture, uniqueness, theme, and style significantly impact player preferences. In Malaysia, where visual culture and identity are intricately linked to digital consumption, the particular design features of virtual skins may profoundly influence a player's purchasing choice. These dynamic highlights an emotional commitment to virtual skins, where purchasing transcends the transaction to become a manifestation of personality and individual preference.

This research uses Plutchik's Wheel of Emotion, a psych-evolutionary theory, to analyse and quantify emotional reactions. By concentrating on certain portions of the Wheel—especially those that symbolise emotions associated with acceptance or rejection—we might get insights into how virtual skins elicit sentiments that influence decision-making. This technique enables us to identify the primary emotions linked to various skin outfit elements and assess their influence on player enjoyment and engagement. The investigation will present an initial overview of the emotional aspects that influence gamers to adopt or reject different virtual skins, providing essential data for developers seeking to enhance design and marketing tactics to address audience demands more effectively.

The psychologist Robert Plutchik created Plutchik's Wheel, a model that illustrates the interconnections between various emotions. Several domains extensively use it to comprehend and describe emotional responses. The Wheel is structured as a circular graphic that classifies emotions into eight (8) essential bipolar pairs: joy versus sadness, trust versus disgust, fear versus anger, and surprise versus anticipation. The circular configuration illustrates the interconnection of emotions, with adjacent emotions exhibiting more similarity and opposing feelings showing more significant divergence. This structure successfully highlights the intricate spectrum of human emotions and their possible combinations, serving as a valuable instrument for psychological study and application (Mondal and Gokhale, 2020; Semeraro et al., 2021; Suttles and Ide, 2013).

1.1 The “Emotion Wheel”

Robert Plutchik's three-dimensional circumplex model, frequently called the "Emotion Wheel," serves as a vital starting point for comprehending various emotional experiences analogous to the colour wheel. It articulates an additional reality while also providing an overview of the many methods by which certain states might integrate and modify their intensity (Plutchik, 2001).

The vertical dimension is perceived as intensity along a single axis, with the top indicating strength and the bottom signifying mildness. Conversely, the circumferential dimension signifies emotional proximity; similar feelings are situated closer together on the wheel, whereas opposing emotions are seen as contradictory. Plutchik identified eight fundamental bipolar emotions, including four opposed pairs: joy versus sadness, anger versus fear, trust versus disgust, and surprise versus anticipation (Karimova and Millacci, 2017).

Primary dyads, which are combinations of two fundamental feelings, occur among these basic emotions; for instance, love is regarded as a primary dyad since it encompasses joy and trust. These

networks indicate a fluidity and complexity in human emotions that may articulate emotional experiences in a more nuanced and thorough manner (Esparza, 2022; Gu et al., 2019; Niedenthal and Brauer, 2012).

This paradigm is very beneficial in the domains of emotional awareness, research, psychotherapy, and human behaviour. It enables individuals to recognise and articulate their emotions, assists therapists in comprehending their clients' emotional states, and imparts an educational aspect to the whole notion of emotional complexity and literacy. This model provides a comprehensive framework for exploring the intricacies of human emotional experience across many psychological and social contexts by elucidating the relationships and intensities of emotional connections.

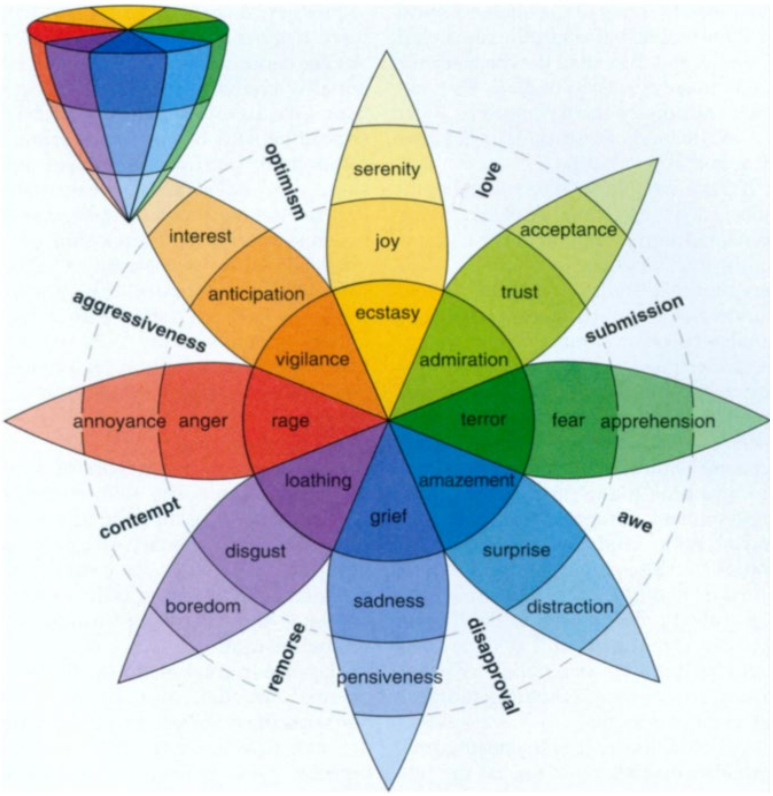

Figure 1 Robert Plutchik's three-dimensional circumplex model defines the relationships among emotional notions, akin to the hues on a colour wheel (Plutchik, 2001).

This study applies Robert Plutchik's three-dimensional circumplex model of emotions to concentrate on two key bipolar pairings: the opposites of trust and disgust. This selection is strategic; it intends to capture the strength and intensity of emotions that players feel about a variety of virtual skins in PUBG, including colour, theme, style, uniqueness, and texture. These components are crucial since they impact a player's purchasing decisions and enhance their visual enjoyment and overall engagement with the game.

The selection of trust or disgust as primary emotions offers a distinct perspective for evaluating the emotional influence of virtual skins on players. In this context, trust may indicate a player's favourable emotional connection to skin that aligns with their own tastes or enhances their in-game identity. It implies a feeling of contentment and connection, maybe resulting in a purchasing choice driven by favourable feelings linked to the skin's aesthetics and perceived value.

Conversely, disgust denotes adverse emotional responses elicited by certain visual elements of a skin, such as unattractive colours, substandard designs, or themes that fail to connect with the player. Disgust may result in the rejection of a skin, profoundly affecting a player's overall visual satisfaction and their willingness to interact with the game product.

By charting these feelings according to the intensity range defined by Plutchik's model—from mild to intense—we may get sophisticated insights into the degree to which various elements of virtual skins emotionally affect players. The intensity metric aids in comprehending players' preferences for a skin and the depth of their emotions, offering predicted insights into their purchase behaviours and engagement levels.

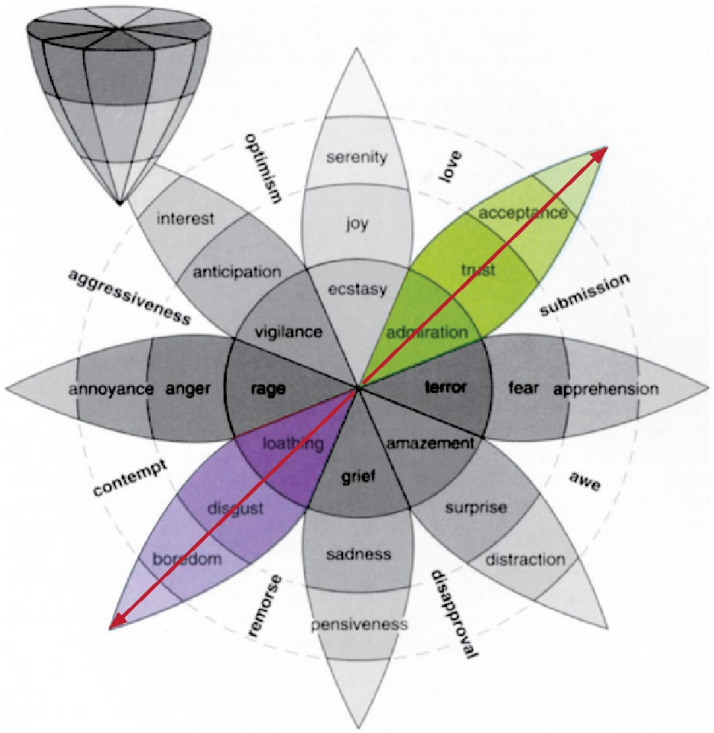

Figure 2 Concentrating mapping emotion area based on Plutchik's Wheel.

Figure 2 depicts the intensity spectrum of basic emotions, as classified by Plutchik's Wheel of Emotions. Users' responses may delineate the differing intensities of each emotion. Boredom exemplifies a low-intensity distaste, suggesting a modest response, while emotions like trust and disgust indicate medium intensity, signifying moderate submission. At high intensity, disgust fosters loathing, but trust grows into admiration, indicating profound emotional responses. This spectrum offers a systematic framework for studying and describing the emotional reactions in the research by centring Plutchik's wheel. This method enhances the understanding of user experiences by facilitating detailed emotional analysis. It assists in distinguishing nuanced sentiments, such as satisfaction, from more profound feelings, like admiration or loathing, which may dramatically affect user preferences. The spectrum aids in comprehending how visual stimuli, such as virtual skins, elicit emotions at varying intensity levels, providing practical insights to enhance user engagement. This enables developers to identify and highlight design aspects that evoke favourable emotional reactions, hence enhancing the overall user experience.

2 LITERATURE REVIEW

Emotional measurements applied to video games have garnered a great deal of interest in the last few years, especially in terms of applying Plutchik's Emotion Wheel to interactive video experiences. The Plutchik model organises basic emotions into eight (8) main sets of opposites so we can better understand how certain emotional states do not impact the player's ongoing retention and fun game components. According to de Byl (2015), integrating affective experiences when designing the game is crucial to stimulating relevant interactions and enhancing the complexity of the player. As an adjunct to this, game appraisal systems based on Plutchik's structure can also accurately characterise emotional investment, empowering designers to design more impactful experiences for specific emotional states.

Some work has been done on gamification systems; for instance, Su and Cheng (2016) developed a gamification rehabilitation system for creativity. Their findings indicate that integrating a model of emotions, achieved through main component analysis and the adaptive neuro-fuzzy inference system (PCA-ANFIS), enhances player participation and fosters a positive attitude.

Kołakowska et al. (2015) elaborate on how the Plutchik's framework can be useful to the game development process by investigating feelings modelling for the intentional use of emotions. By altering your game based on emotional responses, the interactive aspects of a game can truly resonate with its players, creating custom game experiences that provide greater motivation and satisfaction. Developers who include emotional awareness in evaluating their games could, therefore, not only assess players' responses but also create a more engaging game experience that aligns with players' emotional states.

However, the implications of the Plutchik's Wheel extend far beyond just in games. Hafiz Hassan et al. (2023) explore their use in educational games for autistic children (TEA) in educational contexts. Providing such unique employs of Plutchik's feeling in the form of a detective-like graphics game, writers reveal that particular emotional involvement methods not only fortify learning outcomes but also positively affect the satisfaction of ASD kids as well as their own requirements. This method highlights the capacity of emotional frames to produce experiences of empathic games and educational games. It demonstrates the necessity of considering emotional factors in educational game assessments.

Moreover, Butkutė (2023) proposed a new concept called emotional awareness, which unites the notion of the user experience and the need for emotional vocabulary in order to strengthen devotion. The players' ability to emotionally connect with the game is the principal interface for enhancing the emotional commitment and awareness in the players during gameplay. Recognising this emotional aspect within the design process is important for supporting the Plutchik's model, which can indicate that careless emotional contexts may lead to less effective game experiences.

Furthermore, contemporary research on emotional analysis consistently demonstrates the extensive applicability of the Plutchik's Wheel. Kumar and Vardhan (2022) applied the framework to social networks and showed that all emotions are still important. The framework may also be used in situations other than games. Their results suggest that emotion-based analysis could be helpful in reviewing games, even ones with community emotional expressions. This could help connect social engagement and gaming experiences.

Another related research can be seen in a study by Vojković (2020). In this study, the relationship between the emotional response to film costumes and the visual narrative elements they encase is more broadly significant to their role in film narrative. Using Plutchik's Wheel of Emotions, a psychological model defining emotional responses, Vojković (2020) decodes these emotional responses and creates a structured framework for those emotional responses as a viewer reacts to visual elements in film costumes. This system organises emotions into primary level, secondary level and their corresponding

tertiary levels, creating a complete chart of human emotions. The study explores how the visual and thematic elements of costumes evoke the viewer's subconscious emotional responses, using Plutchik's Wheel to guide the analysis of emotion in the film 'Bladerunner' (1982). These responses are then mapped on the wheel to determine which emotions dominate the viewer experience and contribute to this cathartic experience. This research demonstrates how film costumes influence the viewer's emotional and psychological involvement with films, thus enhancing and enriching the narrative experience.

Plutchik's Wheel of Emotions serves as the theoretical framework in a study by Angeli et al. (2020), “Beyond Happy-or-Not: Using Emoji to Capture Visitors' Emotional Experience”. It allowed the researchers to deeply understand and classify how museum visitors experience their emotional encounters. Their model would classify emotions into eight primary bipolar emotions: joy versus sadness, anger versus fear, trust versus disgust, and surprise versus anticipation. This model assists one in understanding how complex and profound human feelings are as this is something not easily articulated or visible. Inspired by Plutchik's model, the researchers designed a collection of nine (9) emojis intended to provide a full range of emotional states. They were then presented with a word association task to verify that participants understood the emotional concepts intended with the original emoji. The study elicited engagement with the emotional experience of museum exhibit visitations, enhancing traditional interview data with qualitative analysis. This is to gauge visitor sentiment to ascertain not just the emotions experienced but also the underlying reasons, providing a comprehensive understanding of the visitor experience.

Plutchik's Wheel of Emotions serves as a powerful framework for understanding player involvement and emotional responses in gaming. This approach helps researchers and designers understand the emotional landscape of players, which can be used to develop impactful gaming experiences. Developers can create an interactive environment that engages players mentally and emotionally by correlating emotions with gameplay elements. "Putting Some Emotion into Your Design – Plutchik's Wheel of Emotions" (n.d) describes that the Wheel of Emotion is not meant to be a complete set of emotional design tools, and it might be too simple for some situations, leaving out other important emotions. However, it can be a useful tool for UX designers to quickly think about how product design affects the development of certain emotions. Emotional design is essential for developers to integrate emotions into the game review process, resulting in a dynamic interplay of narrative, mechanics, and aesthetics. This customised emotional impression enhances player immersion and fosters greater involvement and enjoyment, which is crucial for a title's long-term success.

Plutchik's emotions wheel has shown the efficacy of bridging the gap between real-life experiences and visual representations of dependency systems for virtual goods and environmental dependencies. By designing virtual items with emotional considerations, players can evoke unique sensations, enhancing their engagement and investment in the game. Tailored visual experiences using emotive design principles promote greater immersion, making virtual environments more authentic and solid. Synchronising virtual aesthetics with emotional states, such as resonant images, adaptable lighting, or interactive feedback loops, yields a more cohesive and memorable experience. These insights enable game developers to transition from functional mechanics to emotional intelligence and responsiveness, aiming to build games that connect with players through engagement and empathy. This multifaceted approach will enhance individual player experiences and elevate the significance of games as a medium, enabling them to engage diverse audiences akin to other creative forms.

3 METHODOLOGY

This research employs a quantitative approach to evaluating the emotions of PlayerUnknown's Battlegrounds (PUBG) respondents. The researchers used Plutchik's Wheel to examine players'

purchasing intentions and their visual enjoyment through the use of virtual skin elements. The quantitative approach is the most effective strategy for assessing responses from a large sample size since it provides reliable outcomes via statistical analysis. Researchers used statistical software to organise and analyse the acquired data, focusing on frequencies and patterns. For clarity, we displayed the results using pie charts.

The study focused on a particular group of 204 PUBG players. The respondents were selected by non-probability sampling, namely purposive sampling, to guarantee the inclusion of individuals with appropriate experience in purchasing and using virtual skins. The player demographics included several playstyles, including conventional players, time-fillers, all-round enthusiasts, and ultimate gamers, according to the classification system established by Newzoo (2020). The researchers seek to provide diverse insights into the use of virtual skins and the emotional responses they evoke by analysing a wide array of player types.

The primary objective of this study was to evaluate how the different elements of virtual skins—namely, themes, uniqueness, style, texture, and colour—evoke emotions in players and influence their in-game experiences. It was posited that these elements would affect players' purchasing intents by creating aesthetic appeal and attachments while augmenting their visual enjoyment and making their gaming more captivating. The selection of PlayerUnknown's Battlegrounds (PUBG) for this research was intentional, given that the use of virtual skins in this game has emerged as a significant trend within the gaming industry. Many gamers highly value their peers due to their aesthetically pleasing appearance and consider them essential for personalising and self-expression inside the game.

This approach also demonstrates the potential of an online survey in conjunction with Plutchik's Wheel of Emotions to evaluate emotional responses towards virtual skin elements in the game PUBG. This, combined with intentional targeting and using social media, tournaments and streamers for survey dissemination, ensured relevance and a high response rate. The data helps untangle the relationship between elements of the virtual skin and engagement to purchase intention and visual enjoyment, providing a solid theoretical framework for the emotional influence of virtual skin elements experience of the player that will eventually be useful for research as well as practice.

4 ANALYSIS AND RESULTS

Analyses of the intensity of emotional responses elicited by virtual skins in PUBG emphasise two key factors: visual enjoyment and purchase intention. The statistical data underscores the influence of various virtual skin elements—such as themes, uniqueness, style, texture, and colour—on respondents' emotions. The researchers assessed each aspect based on the feelings it evoked, ranging from low-intensity negative emotions like boredom to high-intensity positive emotions like admiration. This assessment is necessary to determine which virtual skin elements evoke emotion most and how those emotions affect their visual enjoyment and purchase intention. Table 1 displays the frequency of each emotion elicited by the virtual skin elements in PUBG. The engagement of these elements and the emotional intensity from Plutchik's Wheel are categorised into purchase intention and visual enjoyment.

Table 1 Table on emotional intensity towards virtual skin elements of purchase intention and visual enjoyment.

Factor	Emotional Intensity	Virtual Skin Elements				
		Theme	Colour	Style	Uniqueness	Texture
Emotion intensity towards virtual skin elements in purchase intention	Acceptance	87 (42.6%)	78 (38.2%)	72 (35.3%)	63 (30.9%)	74 (36.3%)
	Trust	25 (12.3%)	16 (7.8%)	21 (10.3%)	20 (9.8%)	23 (11.3%)
	Admiration	74 (36.3%)	91 (44.6%)	84 (41.2%)	**99 (48.5%)**	80 (39.2%)
	Boredom	12 (5.9%)	13 (6.4%)	25 (12.3%)	13 (6.4%)	25 (12.3%)
	Disgust	6 (2.9%)	4 (2.0%)	1 (0.5%)	6 (2.9%)	1 (0.5%)
	Loath	- (0.00%)	2 (1.0%)	1 (0.5%)	3 (1.5%)	1 (0.5%)
Emotion intensity towards virtual skin elements in visual enjoyment	Acceptance	78 (38.2%)	75 (36.8%)	67 (32.8%)	65 (31.9%)	69 (33.8%)
	Trust	29 (14.2%)	14 (6.9%)	23 (11.3%)	16 (7.8%)	23 (11.3%)
	Admiration	80 (39.2%)	84 (41.2%)	88 (43.1%)	**102 (50%)**	97 (47.5%)
	Boredom	12 (5.9%)	22 (10.8%)	19 (9.3%)	15 (7.4%)	12 (5.9%)
	Disgust	1 (0.5%)	6 (2.9%)	4 (2.0%)	3 (1.5%)	1 (6.9%)
	Loath	4 (2.0%)	3 (1.5%)	3 (1.5%)	3 (1.5%)	1 (0.5%)

This table gives a detailed insight into how various elements of virtual skin in PUBG—theme, colour, style, uniqueness, and texture—evoke certain emotions among players. These emotions can also be further divided by intensity and polarity such that they exist on a spectrum from positive emotions, which include acceptance, trust, and admiration, to negative emotions, which involve boredom, disgust, and loath. The table splits the findings into two main aspects of engagement: purchase intention and visual enjoyment.

Uniqueness represents the highest percentage (48.5%) of Admiration related to purchase intention, followed by Colour (44.6%) and Style (41.2%), Texture (39.2%), and Theme (36.3%). Hence, players look forward to unique, pretty, and attractive skins when making their purchases. The primary emotion linked to visual enjoyment also is Admiration, with the most significant percentages for Uniqueness (50%), Texture (47.5%), Style (43.1%), Colour (41.2%), and Theme (39.2%). The results indicate that players favour unique, aesthetically pleasing skins and are of superior quality.

Acceptance, another low-intensity positive emotion, is also essential. It is most prominent for Theme (42.6%) and second for Colour (38.2%), Texture (36.3%), Style (35.3%) and Uniqueness (30.9%). This indicates that players are not offended by these features on a visual basis, and Uniqueness represents the highest percentage (48.5%) of admiration related to purchase intention, followed by Colour (44.6%) and Style (41.2%), Texture (39.2%), and Theme (36.3%). Hence, players look forward to unique, pretty, and attractive skins when making their purchases. Acceptance is robust as well for visual enjoyment; Theme (38.2% achieved high popularity), followed by Colour (36.8%), Texture (33.8%), Style (32.8%), and Uniqueness (31.9%). This is predicated on a fundamental standard of visual enjoyment among all elements.

Trust, a mid-level positive emotion, is less prominent but still significant, making up between 7.8% (Colour) and 12.3% (Theme). This demonstrates players' conviction in the worth and standard of these covers, affecting their readiness to put resources into them. Skins that evoke Trust are seen as stable and visually appealing in players' engagement with the visual enjoyment of the elements in the virtual skin. The trust players have in the subject ranges from 6.9% (Colour) to 14.2% (Theme) of what the virtual skin in PUBG offers them.

In purchase intention, players' engagement shows that Boredom is the most typical negative emotion and is highest for Style (12.3%), indicating that certain players did not find some styles as engaging as others and regarded them as boring or uninspired. The same pattern holds for Theme (5.9%), Colour (6.4%), Uniqueness (6.4%) and Texture (12.3%). The most significant level of Boredom can be seen in players' engagement with visual enjoyment; the predominant negative emotion in Colour is 10.8%. Likewise, we see minimal boredom levels in several dimensions, such as Style (9.3%), Theme (5.9%), Uniqueness (7.4%), and Texture (5.9%), which may serve as the focus point for innovative design elements.

Disgust and Loathing are low in purchase intention, with all elements < 3 %. Thus, the majority of skins satisfy players' expectations and seldom evoke intense wrath. Though for visual enjoyment, Disgust and Loathing are minimal, they are slightly higher than purchase intention. Disgust ranges from 0.5% to 2.9%, whereas Loathing consistently stays below 2% for all elements. Most skins are visually appealing and seldom provoke displeasure.

Regarding purchase intention and visual enjoyment, Uniqueness constantly proves to be the most influential element, evoking the most positive emotions, particularly Admiration. This highlights the need for unique and peculiar designs to engage players more effectively. Colour and Texture significantly influence both Admiration and Acceptance. High-quality and aesthetically pleasing skins attract players, making these features essential for enhancing enjoyment. Style and Theme evoke moderately favourable feelings, indicating their significance while necessitating careful integration with player preferences to prevent boredom. Negative emotions, mainly boredom, underscore the need for constant innovation to sustain player engagement. The minimal presence of Disgust and Loathing indicates that the majority of virtual skins fulfil players' expectations.

4.1 Mapping of Emotion with Virtual Skin Elements in and Player Engagement in relation to Purchase Intention and Visual Enjoyment.

The visual mapping in Figure 3 illustrates the relationship of PUBG virtual skin elements with players' emotional responses. This mapping categorises emotions according to Plutchik's Wheel of Emotions into positive (Admiration, Trust, Acceptance) and negative (Boredom, Disgust, Loathing), classifying each category into low, medium, and high intensities. The diagram demonstrates how virtual skin elements — Theme, Colour, Style, Uniqueness, and Texture – influence emotional intensity, impacting player engagement to purchase intention.

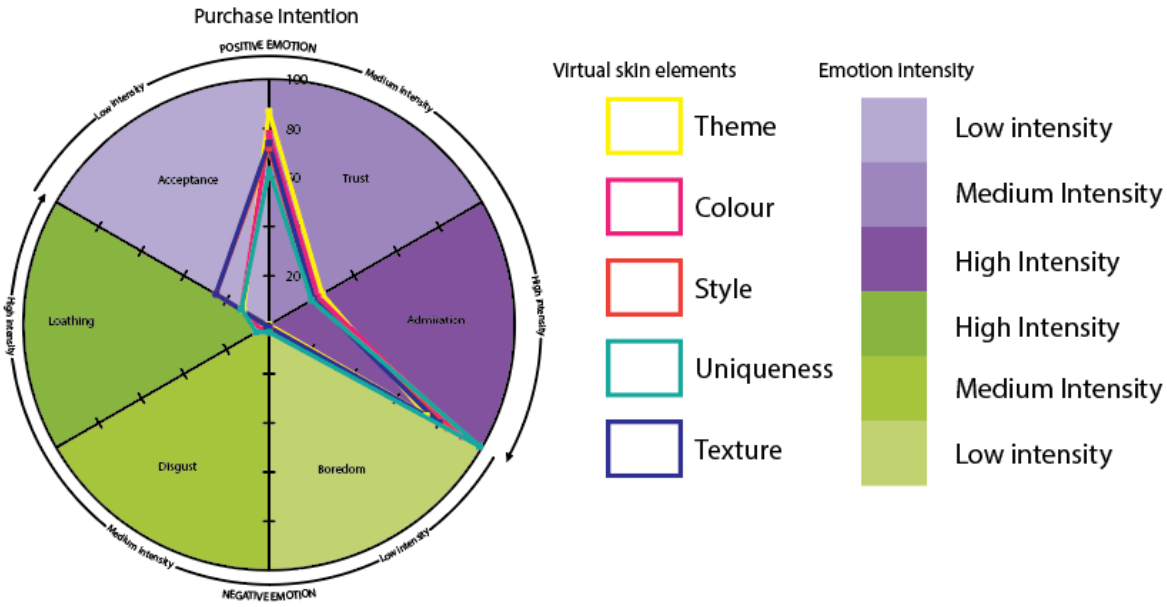

Figure 3 Emotion mapping chart in player engagement to purchase intention.

The aspect of Theme is most present in low-intensity positive emotions such as Acceptance, suggesting that players find skins visually acceptable. This shows that themes fulfil baseline criteria, playing a role in people's decisions to purchase, yet may not lead consumers to experience an emotional high.

Colour stimulates a wide variety of emotions, including strong positive ones like Trust and Admiration. Colour is one of the most significant drivers of engagement and purchase intention, as players are naturally drawn to bright, harmonious colour palettes that create a pleasant visual experience and add to the skin's overall appeal. Style is associated with high-intensity positive emotions like Admiration and elicits medium-intensity emotions like Trust. A well-established style personalises the virtual skin, enhancing its individuality and attracting more attention. However, uninspired or repetitive styles may also lead to low-intensity negative emotions like boredom. Unique is the strongest lever of high-intensity Admiration; thus, it is the most impactful element driving Player engagement. Players value original and exclusive designs as they are perceived as premium which they are willing to buy. This points out how much the skin design needs innovation to keep players engaged. Texture expresses a blend of low to medium-intensity positive emotions, primarily Acceptance and Trust. This gives them a reasonably decent perceived value, and players tend to appreciate skins with realistic or high-quality textures.

The mapping demonstrates a clear relationship between players' emotions and their purchasing intentions. High-intensity positive emotions, such as Admiration, mostly influence purchase intention. Skins that evoke Uniqueness, exclusivity, pride, and aesthetic appreciation are more likely to attract player expenditure. Uniqueness consistently elicits Admiration, making it the primary motivator for purchasing. Colour and Style also contribute to aesthetics and personalisation.

Medium-intensity emotions, such as Trust, are also very significant. Trust in Skins assures gamers that their purchases are of high quality and value, hence enhancing their decision-making assurance. For instance, realistic and Texture align with player expectations and improve their enjoyment.

Emotions like Acceptance are characterised as low-intensity positive emotions contributing to a

fundamental level of satisfaction. While not quite as powerful as Admiration or Trust, this guarantees that players see the skins as fulfilling their expectations, so ensuring their continued engagement. Virtual skin elements like Theme and Texture often foster Acceptance, hence facilitating deeper emotional relationships.

Conversely, negative emotional states like Boredom negatively impact player engagement and purchasing intention. It mostly has mundane, monotonous designs that relate to Themes or Styles that lack originality. The mapping suggests minimal levels of Disgust and Loathing, suggesting that most virtual skins either meet or surpass expectations and do not display significant negative emotions.

Each virtual skin element unleashes a different intensity of emotional response, which corresponds to the player's interest in visual enjoyment in the game and directly influences it. Uniqueness and Style are ranked first in their contributions to the generation of high-intensity positive emotions, precisely Admiration, which suggests a profound respect for skins that are original and unique. When players equip a specific skin, they are attracted to the particular and unique aesthetic because they strengthen and enjoy the visual aspect of the connection with the game. Likewise, Colour also exerts a significant influence here by adding medium to high emotional intensity, again, by using graphics for skins with bright and coordinated palettes to remain an interesting aspect of gameplay. Players who appreciate colourful skins will want high levels of visual satisfaction experienced through colour, hence ensuring that the colours of their virtual skins' avatar stand out.

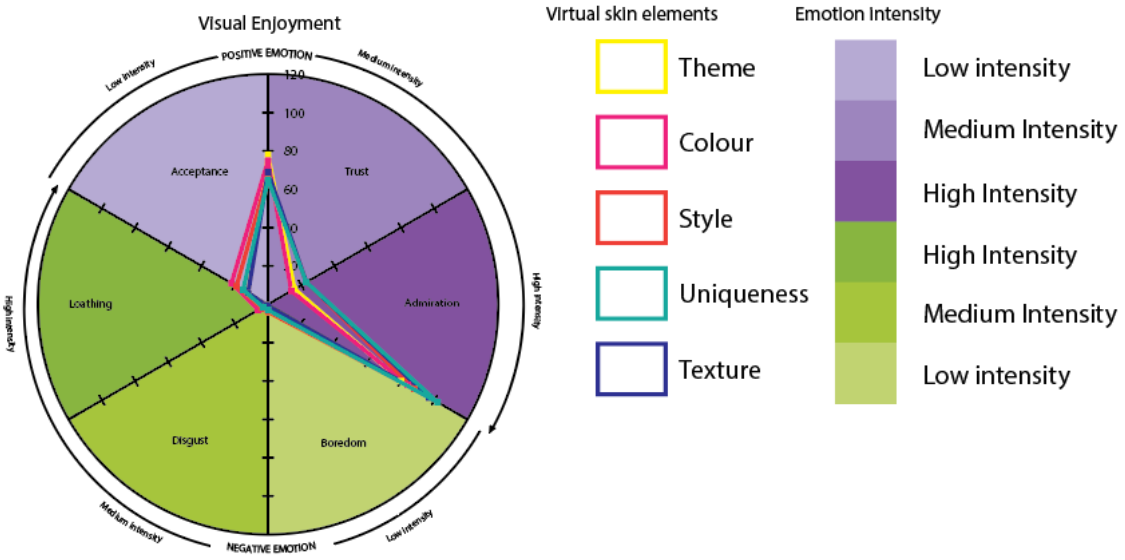

Figure 4 Emotion mapping chart in player engagement to visual enjoyment.

Each virtual skin element unleashes a different intensity of emotional response, which can be seen in Figure 4, that responds to the player's interest in visual enjoyment in the game, which directly influences it. Uniqueness and Style are ranked first in their contributions to the generation of high-intensity positive emotions, precisely Admiration, which suggests a profound respect for skins that are original and unique. When players are equipped with a specific virtual skin, they are attracted to the specific and unique aesthetic because they strengthen and enjoy the visual elements and feel engaged in the game. They are drawn to a particular virtual skin depending on its distinctive look since it enhances and enriches their visual engagement with the game. Similarly, Colour significantly influences by introducing medium to high emotional intensity, using graphic for skins with vibrant and matched palettes to enhance the engagement of gameplay. Ensure that the colours in skins are vibrant since players who value colourful skins want elevated visual delight derived from colour.

Conversely, the elements of Theme and Texture elicit low- to medium-intensity emotions, such as acceptance and trust. These characteristics guarantee that virtual skins are aesthetically attractive and fulfil fundamental requirements without necessarily eliciting intense emotional responses. A well-crafted theme ensures coherence within the gaming world, enabling players to experience engagement and alignment with the overarching game aesthetic. The Texture, which increases the realism and intricacy of virtual skins, bolsters faith in their visual quality, assuring players of the high calibre of virtual skins they are acquiring. While these qualities may not elicit profound adoration, they function as crucial elements that facilitate player engagement.

The negative emotions associated with virtual skins to illustrate visual failure in skins include Boredom, Disgust, and Loathing. The most negative emotion among players is boredom, which arises when skins lack uniqueness or fail to include fresh and original ideas. This suggests that elements such as Style and Theme must be consistently reinvented to augment their aesthetic. Disgust and Loathing are infrequent occurrences, yet they indicate that skins that significantly diverge from player expectations or include design elements seen as repulsive encounter substantial challenges.

Player engagement in PUBG is significantly influenced by the emotional responses generated through virtual skins, as well as the gameplay itself. Visual enjoyment, driven by high-intensity positive emotions, plays a critical role in retaining player interest and enhancing their engagement with the game. When skins evoke Admiration, players feel a sense of pride and exclusivity, motivating them to continue playing and showcasing their unique skins in the game environment. Additionally, medium-intensity emotions such as Trust ensure that players feel satisfied with the quality and design of skins, fostering long-term engagement.

The results from emotional mapping reveal what may be preserved and what game developers should prioritise in order to enhance the elements that elicit the most positive emotions. This ensures that players remain genuinely interested in the game and their unique in-game personas. Introducing designs that divert attention from negative emotions is essential; a diversified, innovative, or adaptable design may effectively mitigate boredom and disengagement over time. Consistent updates, themed seasons, and aesthetic decisions inspired by the player community may enhance aesthetics and sustain long-term player engagement.

The analysis of emotion mapping to PUBG virtual skin elements shows that the level of emotion engagement is strongly linked to a significant increase in visual enjoyment. Emotions such as Admiration and Trust are primary catalysts for the player, while negative emotions like Boredom provide possibilities for improvement. Developers may use this concept by skilfully designing virtual skins that embody player preferences and emotions, thereby enhancing the experience and fostering a deeper bond between the player and the game.

5 CONCLUSION

Based on the findings shown in this research, the visual elements of virtual skins in PUBG play an essential role in influencing the emotional intensity of players, ultimately affecting their intentions to purchase and visual enjoyment. The study highlights how key elements of virtual skins—theme, colour, style, uniqueness, and texture—can provoke varying degrees of emotional responses. Applying Plutchik's Wheel of Emotions offers a structured framework to categorise these emotional responses, dividing them into positive and negative emotions across different levels of intensity.

Positive emotions, notably admiration, trust, and acceptance, are seen as fundamental catalysts of player engagement. High-intensity admiration, particularly evoked by uniqueness and style, leads to

stronger visual enjoyment and an increased likelihood of purchase intention. Players opt for virtual skins that provide a feeling of exclusivity and originality, making uniqueness the paramount factor in cultivating emotional attachment and brand loyalty. Likewise, colour and texture foster positive responses to emotion by enhancing the overall aesthetic attractiveness and authenticity of virtual skins, thus bolstering trust and acceptance.

Conversely, emotions such as boredom, disgust, and loathing decrease player engagement. Monotonous or uninspiring skin designs will result in boredom, which is the first indicator of diminishing interest; hence, it is essential to innovate and devise novel methods to provide captivating visual elements. Despite being seen at minimal levels, disgust and loathing are sufficient to indicate the need to align player expectations with design elements or risk losing the player entirely.

The research highlights the dual influence of visual elements on both purchase intention and visual enjoyment, which are interconnected facets of player engagement. Virtual skins that elicit positive emotional responses not only facilitate buying decisions but also augment the whole game experience, resulting in greater player engagement and satisfaction. This emotional connection eventually enhances player retention and ensures continued income for game developers.

In conclusion, the research provides valuable insights into the emotional dynamic of virtual skins in PUBG, which changes over time. It also suggests a new way to understand player engagement through emotion mapping and intensity assessment. Developers may use these findings to enhance skin designs, emphasising elements that elicit positive emotions and reducing negative ones. By constantly improving the visual attractiveness and emotional resonance of virtual skins, PUBG can sustain its relevance and attractiveness within the gaming community, cultivating a more profound connection between players and the game.

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All authors played equal contributions towards the production of this paper.

CONFLICT OF INTEREST

The author declares no potential conflict of interest with respect to the research, authorship, and/or publication of this article.

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