

THE INFLUENCE OF SELF-PRESENTATION THROUGH ROBLOX AVATARS ON ADOLESCENTS' SELF-EFFICACY

Iqomul Ma'wah

Universitas Negeri Surabaya

e-mail: mawahiqomul@gmail.com

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ABSTRAK

Kemajuan teknologi digital telah mengubah cara remaja mengekspresikan diri dan membangun identitas melalui interaksi virtual, khususnya pada platform Roblox. Penelitian ini bertujuan untuk menganalisis pengaruh *self-presentation* melalui avatar Roblox terhadap *self-efficacy* remaja. Penelitian menggunakan pendekatan kuantitatif asosiatif dengan melibatkan 101 remaja berusia 15–18 tahun di Surabaya yang dipilih menggunakan teknik purposive sampling. Instrumen penelitian terdiri atas *Online Self-Presentation Scale* dan *General Self-Efficacy Scale*. Analisis regresi linear sederhana menunjukkan adanya pengaruh positif yang signifikan antara *self-presentation* avatar terhadap *self-efficacy* remaja ($F=202.022$, $p<0.001$). Nilai koefisien determinasi (R^2) sebesar 0,671 menunjukkan bahwa *self-presentation* memberikan kontribusi sebesar 67,1% terhadap variasi *self-efficacy* remaja. Temuan ini mengindikasikan bahwa representasi diri melalui avatar virtual berperan dalam memperkuat keyakinan remaja terhadap kemampuan dirinya pada konteks sosial digital. Penelitian ini berkontribusi dalam memperkaya kajian psikologi sosial digital, khususnya terkait hubungan identitas virtual dan perkembangan psikologis remaja di era media interaktif.

Kata Kunci: *Self-Presentation, Self-Efficacy, Avatar Roblox, Remaja, Identitas Virtual*

ABSTRACT

Advances in digital technology have transformed the way adolescents express themselves and construct identities through virtual interactions, particularly on the Roblox platform. This study aims to analyze the influence of self-presentation through Roblox avatars on adolescents' self-efficacy. The research employed an associative quantitative approach involving 101 adolescents aged 15–18 years in Surabaya selected through purposive sampling. The research instruments consisted of the Online Self-Presentation Scale and the General Self-Efficacy Scale. Simple linear regression analysis revealed a significant positive effect of avatar self-presentation on adolescents' self-efficacy ($F=202.022$, $p<0.001$). The coefficient of determination (R^2) value of 0.671 indicates that self-presentation contributes 67.1% to the variance in adolescents' self-efficacy. These findings indicate that self-representation through virtual avatars plays a role in strengthening adolescents' confidence in their abilities within digital social contexts. This study contributes to the development of digital social psychology studies, particularly regarding the relationship between virtual identity and adolescents' psychological development in the era of interactive media.

Keywords: *Self-Presentation, Self-Efficacy, Roblox Avatar, Adolescents, Virtual Identity*

INTRODUCTION

The rapid expansion of digital technology has fundamentally reshaped adolescents' lifestyles, communication patterns, and psychosocial experiences in contemporary society. The increasing accessibility of internet-based platforms has created environments where adolescents

spend substantial portions of their daily interactions through digital media, online communities, and immersive virtual spaces. This transformation indicates that identity development among adolescents is no longer exclusively formed through offline social experiences but increasingly occurs within interconnected online environments. Consequently, virtual interaction has become an important domain influencing emotional development, social belonging, confidence, and perceptions of personal competence. Understanding adolescents' psychological experiences in digital contexts has therefore become increasingly relevant because online environments now function as significant spaces for identity negotiation and social participation.

The rapid development of digital technology has transformed the ways adolescents communicate, socialize, and construct their identities in contemporary society. Internet-based platforms increasingly provide interactive environments where adolescents can express themselves and establish social relationships without geographical limitations. Roblox has emerged as one of the most popular digital gaming platforms among adolescents because it allows users to create avatars and engage in collaborative virtual experiences (Yuningsih & Jaizul, 2026; Kou & Gui, 2023). Beyond entertainment purposes, Roblox also functions as a social space where adolescents negotiate identity, interaction, and self-expression through digital representation. Unlike conventional gaming platforms that emphasize competition and achievement, Roblox facilitates participatory experiences through avatar customization, community interaction, and user-generated content, making it an increasingly relevant environment for understanding adolescents' psychosocial behavior in digital settings.

Digital environments encourage adolescents to develop symbolic representations of themselves through avatars that reflect personal preferences, emotions, and social identities (Adhana, 2025). Self-presentation becomes an important concept for understanding how individuals attempt to shape impressions and communicate particular identities during social interaction (Jeffreys, 2021). Drawing from self-presentation theory, individuals actively manage how they are perceived by others to obtain social acceptance, recognition, and positive evaluation. In virtual settings, avatars are not merely visual characters but symbolic extensions that enable users to express aspects of themselves more freely. The flexibility of avatar customization allows adolescents to display creativity, uniqueness, and social belonging in ways that are often difficult to achieve through face-to-face interaction. Such conditions suggest that digital self-representation increasingly becomes part of adolescents' broader processes of identity construction and social adaptation.

Previous studies have demonstrated that avatar appearance and customization behavior are closely related to emotional attachment, social engagement, and identity exploration in digital environments. Banks and Bowman (2021) explained that users often develop mental models of avatars that influence how they perceive and interact with their digital representations. Similarly, Praetorius et al. (2021) emphasized that user-avatar relationships are shaped by interactional contexts and perceptions of digital identity. These findings indicate that avatars may influence adolescents' perceptions of themselves, including confidence, social acceptance, and psychological adjustment within online interaction. The relationship between users and avatars therefore extends beyond functional gaming elements and may involve emotional investment that shapes how adolescents understand and evaluate themselves in social environments.

Adolescence is a developmental stage characterized by identity exploration, emotional sensitivity, and the need for peer recognition. According to developmental psychology perspectives, adolescence represents a critical period in which individuals actively construct

self-concept and seek social validation from surrounding environments. Social responses obtained from online interaction may influence adolescents' emotions, confidence, and perceptions of personal competence. Positive experiences in virtual communities can strengthen feelings of belonging and social connectedness among adolescents. Soylu et al. (2023) further reported that online gaming experiences are associated with emotional intelligence, social behavior, and psychological responses among young users, suggesting that virtual interaction may contribute to adolescents' psychosocial development. This condition indicates that digital environments increasingly function as developmental spaces where adolescents learn social norms, explore identities, and build perceptions regarding personal capability.

Several studies have highlighted that avatar-based interaction may positively affect psychological experiences and self-perception. Avatar identification and embodiment experiences can strengthen emotional attachment to digital representations and influence users' confidence and self-beliefs (Sah et al., 2021). Park and Ogle (2021) also emphasized that virtual avatar experiences are closely related to self-concept development and identity representation in online environments. In addition, Jo et al. (2025) found that self-expression and interaction in metaverse gaming platforms significantly influence users' engagement and psychological experiences. These studies collectively suggest that avatars function not only as gaming attributes but also as interactive media facilitating emotional connection and identity development in digital spaces. However, most previous studies have concentrated on emotional engagement, identity representation, or gaming experiences, while relatively limited attention has been given to how avatar self-presentation contributes specifically to adolescents' self-efficacy.

Self-efficacy refers to individuals' beliefs regarding their capability to perform tasks, manage challenges, and achieve desired outcomes. According to social cognitive theory, self-efficacy develops through mastery experiences, social persuasion, emotional conditions, and observational learning. In digital environments, supportive interaction, positive peer feedback, and successful social experiences may potentially strengthen adolescents' confidence in their abilities. Consequently, virtual experiences mediated through avatars may become meaningful sources influencing self-efficacy formation. This possibility suggests that online interaction should not merely be viewed as entertainment activity but as a psychosocial process potentially affecting adolescents' confidence and adaptive functioning.

Despite the increasing number of studies concerning digital identity and online gaming behavior, research examining the relationship between avatar self-presentation and adolescents' self-efficacy remains limited, particularly in Indonesia. Existing studies predominantly focus on problematic gaming behavior, addiction, aggression, cyber dependency, or excessive social media use rather than exploring the constructive psychological impacts of avatar-based interaction. Research discussing Roblox also tends to emphasize creativity, learning potential, and gaming culture without specifically analyzing its influence on adolescents' confidence and self-belief. Furthermore, previous studies rarely integrate perspectives concerning user-avatar relationships, identity construction, and self-efficacy development simultaneously within adolescent populations. This condition demonstrates a significant research gap regarding how avatar self-presentation may contribute to adolescents' self-efficacy and psychosocial competence within immersive virtual communities.

The novelty of this study lies in its focus on the influence of Roblox avatar self-presentation on adolescents' self-efficacy within the Indonesian digital context. Unlike previous studies that broadly examined online gaming behavior or digital interaction, this study specifically emphasizes the psychological implications of digital identity construction through

avatars as mechanisms associated with confidence formation and perceived competence. The study integrates perspectives on user-avatar relationships, identity representation, social cognitive theory, and adolescent psychosocial development to explain how virtual self-presentation may strengthen confidence and social competence in digital environments. Moreover, this research contributes empirical evidence from Indonesia, where studies examining the constructive psychological impacts of avatar interaction among adolescents remain relatively scarce. The findings are expected to contribute theoretically to the development of digital social psychology literature and practically provide insights for educators, parents, and policymakers regarding the constructive use of digital platforms to support adolescents' psychological adjustment, confidence, and social development in the digital era.

RESEARCH METHODS

This study employed a quantitative approach with an associative research design to examine the influence of avatar self-presentation on adolescents' self-efficacy within the Roblox platform. The quantitative associative approach was selected because it enables researchers to analyze the relationship between independent and dependent variables objectively through statistical analysis. The participants consisted of 101 adolescents aged 15–18 years in Surabaya who actively use Roblox in their daily online activities. The sample was determined using a purposive sampling technique based on several criteria, namely adolescents within the specified age range, active Roblox users for at least the past six months, and individuals who frequently utilize customizable avatars during social interaction within the platform. These criteria were established to ensure that participants had adequate experience related to avatar-based interaction relevant to the objectives of the study. Data collection was conducted online through questionnaires distributed using digital forms to facilitate accessibility and participant responses. Prior to completing the questionnaire, participants were informed about the purpose of the study and the confidentiality of their responses to ensure voluntary participation.

The research instruments included the Online Self-Presentation Scale to measure adolescents' digital self-expression behavior and the General Self-Efficacy Scale to assess participants' confidence in their abilities and social competence. Both instruments were adapted to the context of adolescent digital interaction and reviewed to ensure the clarity and relevance of each questionnaire item. The collected data were analyzed using descriptive statistics and simple linear regression analysis with the assistance of statistical software. Descriptive analysis was conducted to identify participant characteristics and response distribution for each variable, while simple linear regression analysis was used to determine the magnitude and significance of the influence of avatar self-presentation on adolescents' self-efficacy. Several preliminary procedures, including response completeness checking and data consistency verification, were also conducted before the statistical analysis process to improve the accuracy of the findings.

RESULTS AND DISCUSSION

Results

The results of this study were analyzed to determine the influence of avatar self-presentation on adolescents' self-efficacy within the Roblox platform. Prior to hypothesis testing, classical assumption tests were conducted to ensure the feasibility of the regression analysis. The normality test using the Normal P–P Plot and histogram of standardized residuals demonstrated that the data were normally distributed. In addition, the linearity test confirmed

that the relationship between self-presentation and self-efficacy fulfilled the assumptions required for simple linear regression analysis. These findings indicate that the dataset was appropriate for further inferential analysis and interpretation.

Descriptive statistical analysis was conducted on 101 adolescents who actively used Roblox. The reliability analysis demonstrated that the research instruments possessed strong internal consistency. The Self-Presentation Scale obtained a Cronbach's Alpha value of 0.958, indicating that the instrument consistently measured adolescents' digital self-presentation behavior. The reliability of both instruments supports the credibility of the collected data and strengthens the accuracy of the research findings.

Table 1. Results of Simultaneous Significance Test (F-Test)

Model	Sum Squares	df	Mean Square	F	Sig.
Regression	7711.233	1	7711.233	202.022	.000
Residual	3778.866	99	38.170		
Total	11490.099	100			

Hypothesis testing was performed using simple linear regression analysis to examine the effect of avatar self-presentation on adolescents' self-efficacy. The regression model presented in Table 1 showed a statistically significant relationship between the two variables. This result confirms that adolescents who demonstrate stronger digital self-presentation through Roblox avatars tend to show higher confidence in their personal and social abilities. Therefore, the alternative hypothesis (H_a) stating that avatar self-presentation influences adolescent self-efficacy was accepted.

Table 2. Results of the Coefficient of Determination (R^2)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.819	.671	.668	6.17822

The coefficient of determination analysis presented in Table 2 revealed that avatar self-presentation contributed substantially to adolescents' self-efficacy. The findings suggest that adolescents' confidence and perceived competence are influenced by how they construct and express their digital identities in virtual environments. This result indicates that avatar-based interaction may play an important psychological role in supporting adolescents' social experiences and self-belief within online communities.

Table 3. Results of Regression Coefficient Analysis

Model	Unstandardized B	Std. Error	t	Sig.
(Constant)	3.655	5.528	.661	.510
Self-Presentation	0.819	.058	14.213	.000

The regression coefficient analysis presented in Table 3 was used to determine the direction of the relationship between variables. The regression equation obtained from the analysis was:

$$Y = 3.655 + 0.819X$$

The positive regression coefficient indicates a direct relationship between avatar self-presentation and adolescents' self-efficacy. Adolescents who demonstrate more positive and consistent self-presentation through their avatars tend to possess stronger confidence in their personal abilities. This finding reinforces the assumption that virtual interaction and avatar customization may provide opportunities for identity exploration, social validation, and positive psychological development among adolescents.

Overall, the findings of this study demonstrate that avatar-based self-presentation is not merely a form of digital entertainment but also a meaningful psychological process associated with adolescents' self-confidence and social competence. The study contributes to the development of digital social psychology literature by emphasizing the role of virtual identity representation in adolescent psychological development. In practical terms, these findings may provide useful insights for educators and parents regarding constructive digital engagement that supports adolescents' confidence, creativity, and social interaction in virtual environments.

Discussion

This study demonstrates that avatar self-presentation on the Roblox platform significantly influences adolescents' self-efficacy. Adolescents who are capable of constructing positive digital identities through avatars tend to demonstrate stronger confidence in their personal and social abilities. These findings indicate that virtual interaction has evolved into an important social environment where adolescents develop self-recognition, social belonging, and emotional confidence. The results also suggest that avatar-based interaction should not merely be interpreted as entertainment activity, but as part of adolescents' psychosocial adaptation within contemporary digital culture. As digital ecosystems increasingly become integrated into everyday life, adolescents' experiences in virtual spaces may contribute to the formation of perceptions regarding competence, autonomy, and interpersonal capability, which are essential components of self-efficacy development.

The findings are consistent with previous studies emphasizing the role of avatars in identity representation and online interaction. Zimmermann et al. (2023) explained that avatars function as symbolic extensions of users' identities that enable individuals to display preferred personal characteristics in virtual environments. Liang et al. (2025) further argued that the boundaries between the "real self" and the "virtual self" are increasingly interconnected because digital representations often reflect emotional and psychological aspects of users' identities. Banks and Bowman (2021) also highlighted that players construct personal mental models toward avatars, causing virtual representations to become psychologically meaningful elements of self-perception and interaction. The convergence of these studies reinforces the interpretation that adolescents' digital self-representation contributes not only to identity expression, but also to the formation of confidence and perceived social competence. This supports the proposition that virtual identities may serve as mediating instruments through which adolescents internalize social experiences and transform them into perceptions of personal capability.

The relationship between avatar self-presentation and self-efficacy may also be interpreted through Bandura's social cognitive theory, particularly regarding mastery experiences and social persuasion as sources of self-efficacy formation. Positive experiences during virtual interaction—such as successful collaboration, peer appreciation, or social acceptance—may strengthen adolescents' beliefs in their own abilities. Adolescents who receive supportive responses toward their avatars are likely to internalize these experiences as indicators of competence. Consequently, repeated positive digital interactions may gradually reinforce self-confidence beyond virtual settings and influence offline social functioning. This

interpretation suggests that digital interaction can become a contemporary context in which self-efficacy is continuously negotiated and reconstructed.

The relationship between avatar self-presentation and self-efficacy may also be interpreted through the concept of social validation in virtual communities. Adolescents who receive positive feedback and recognition from peers in digital environments are more likely to experience increased confidence and stronger feelings of acceptance. Baysden et al. (2022) reported that self-representational avatars are perceived as emotionally meaningful because they allow users to present idealized versions of themselves. Similarly, Koek and Chen (2025) emphasized that avatar personalization positively affects self-esteem, emotional well-being, and social adaptability among adolescents. These findings collectively indicate that avatar customization is not solely aesthetic in nature, but also functions as a mechanism through which adolescents negotiate self-worth and social recognition in online interaction. In this regard, avatar personalization may operate as a symbolic resource enabling adolescents to manage impressions, reduce social anxiety, and increase perceived control during interpersonal engagement.

Another important finding of this study is that virtual gaming environments may facilitate identity exploration during adolescence. Adolescence is characterized by emotional sensitivity, identity searching, and social comparison processes that shape psychological development. Avci et al. (2025) highlighted that digital interaction increasingly influences adolescent identity formation within modern society. In the context of Roblox, avatar customization and collaborative interaction provide opportunities for adolescents to experiment with different forms of self-expression and social communication (Yuningsih & Jaizul, 2026). This condition demonstrates that virtual environments increasingly function as participatory social spaces where adolescents actively construct, test, and negotiate their identities through digital interaction. Identity experimentation within virtual spaces may become especially important for adolescents who experience uncertainty in offline social environments, because digital contexts provide relatively flexible and less threatening environments for self-exploration.

The findings can also be understood through developmental psychology perspectives suggesting that adolescence is a critical period for identity achievement and psychosocial adjustment. Opportunities to modify avatars, join communities, and receive peer responses potentially support Eriksonian processes of identity formation by allowing adolescents to explore multiple self-concepts before achieving stable self-definition. Therefore, virtual spaces may not simply represent alternative realities but can become developmental environments contributing to psychosocial maturation.

The findings of this study also challenge conventional assumptions that online gaming environments predominantly produce negative psychological consequences. Previous discussions frequently associated gaming activities with aggression, social withdrawal, and excessive dependency. However, the present study indicates that avatar-based interaction may also generate constructive social experiences that contribute positively to adolescents' psychological development. Huang et al. (2025) explained that avatar realism and design significantly influence emotional engagement and self-presentation, while Fu et al. (2025) emphasized that avatar creation serves as an important medium for self-expression and social interaction among young users. This study therefore supports a more balanced perspective that digital gaming environments may simultaneously contain both risk and developmental potential depending on the nature of user interaction and social engagement. Thus, the psychological impact of gaming environments should be interpreted contextually, considering interaction

quality, peer relationships, and patterns of digital participation rather than assuming uniformly negative effects.

The interpretation of these findings is further strengthened by the concept of “onlife” interaction proposed by Just et al. (2023), which explains that online and offline identities increasingly intersect within everyday social experiences. Virtual interaction can no longer be separated entirely from adolescents’ real-life psychological and social development because digital environments continuously shape patterns of communication, identity expression, and social participation. In this context, avatar self-presentation reflects more than temporary digital performance, as it may influence adolescents’ emotional confidence and psychosocial adjustment beyond virtual spaces alone. The integration between online and offline experiences indicates that adolescents’ digital identities increasingly become part of broader social reality rather than isolated virtual constructs. Consequently, positive experiences within virtual environments may accumulate and contribute to long-term psychosocial outcomes, including resilience, confidence, and interpersonal adaptability.

Despite the positive implications identified, these findings should also be interpreted cautiously. Excessive dependence on idealized avatar representation may potentially create discrepancies between virtual identity and real-life self-perception, leading to emotional vulnerability when social validation is absent. Therefore, the benefits of avatar-based interaction for self-efficacy may depend on balanced engagement and healthy integration between digital and offline identities. Future studies should investigate whether prolonged exposure to highly curated digital identities produces sustainable increases in self-efficacy or instead contributes to psychological dependency on virtual affirmation.

Furthermore, this study contributes to the development of digital social psychology literature by emphasizing the psychological significance of avatar-based identity construction in adolescents’ self-efficacy. Unlike previous studies that mainly focused on problematic gaming behavior, this study highlights the constructive dimensions of virtual interaction related to confidence, identity development, and social competence. The study also offers a contextual contribution within the Indonesian setting, where research examining the positive psychological implications of avatar self-presentation among adolescents remains relatively limited. More specifically, the novelty of this study lies in positioning avatar self-presentation as a psychosocial mechanism associated with adolescents’ self-efficacy within a popular participatory gaming platform, namely Roblox, rather than merely examining gaming intensity or addiction-related outcomes. Therefore, the findings suggest that positive digital self-presentation through avatars may become an important mechanism for strengthening adolescents’ confidence, psychosocial adjustment, and social competence in the digital era.

From a practical perspective, these findings imply that parents, educators, and policymakers should reconsider digital gaming environments not only as potential sources of risk but also as spaces for psychosocial learning and identity development. Digital literacy programs may benefit from incorporating discussions regarding healthy avatar construction, responsible self-presentation, and emotional awareness in online interaction. Encouraging adolescents to develop reflective and authentic digital identities may help maximize the positive developmental potential of virtual environments while minimizing psychosocial risks associated with excessive dependence on digital validation.

CONCLUSIONS

This study concludes that avatar self-presentation on the Roblox platform has a significant positive influence on adolescents’ self-efficacy. Adolescents who are able to

construct positive digital identities through avatars tend to demonstrate stronger confidence in their personal and social abilities. The findings indicate that virtual interaction is not merely a form of entertainment, but also a psychosocial space that contributes to adolescents' confidence, identity exploration, and social adaptation in the digital era. These results confirm the compatibility between the research objectives, findings, and discussion regarding the relationship between digital identity representation and adolescent psychological development.

Theoretically, this study strengthens the relevance of impression management theory and Bandura's concept of self-efficacy in explaining adolescent behavior within virtual environments. Practically, the findings encourage parents and educators to view adolescents' digital self-expression more constructively by promoting responsible and positive online interaction. Healthy avatar-based self-presentation may support emotional growth, creativity, and social competence among adolescents in increasingly digitalized societies. Future research is recommended to examine additional variables influencing adolescent self-efficacy, such as peer relationships, family communication, and long-term digital engagement through longitudinal approaches to obtain broader insights into adolescent psychological development in virtual environments.

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