

Social Media Usage and Self Esteem: The Case Study of TikTok Addiction among UTHM Diploma Students

Tuan Nursafiah Tuan Lokman¹, Marina Nur Hidayah Mohammad Hazli¹,
Mohammad Aiman Mohd Nasir¹, Nuramirah Juma'at^{1*}, Norain Ahmad
Nordin¹

1 Department of Science and Mathematics, Centre for Diploma Studies

Universiti Tun Hussein Onn Malaysia, Pagoh Higher Education Hub, 84600 Pagoh, Johor, MALAYSIA

*Corresponding Author: nuramirah@uthm.edu.my

DOI: <https://doi.org/10.30880/mari.2026.07.01.005>

Article Info

Received: 01 October 2025

Accepted: 30 November 2025

Available online: 15 January 2026

Keywords

Bergen Social Media Addiction Scale (BSMAS), Rosenberg Self-Esteem Scale (RSE), Spearman correlation, psychological, short-form video app

Abstract

TikTok is a short-form video app that provides a variety of content, from informative to entertaining, appealing to young people. TikTok's algorithm constantly displays videos that are of interest to users, causing them to watch endlessly. This will lead to overuse, making users easily compare themselves to others, relying on external validation and tending to avoid reality. These characteristics can have a negative impact on psychological well-being, such as self-esteem. This study was conducted to identify the level of TikTok addiction and its relationships with self-esteem among diploma students at Universiti Tun Hussein Onn Malaysia. An online survey was used to collect data for this quantitative study, which included 215 diploma students. The Bergen Social Media Addiction Scale (BSMAS) was used to measure the level of social media addiction, and the Rosenberg Self-Esteem Scale (RSE) to assess self-esteem. Descriptive analysis and Spearman correlation were used in analyzing the data using SPSS software. The results of the descriptive analysis found that the average overall score for BSMAS was 16.93 from a score range of 6 to 30, while the average score for RSE was 26.53 from a score range of 10 to 40. This finding shows that students are at a moderate level in using TikTok, while their self-esteem levels are also at a moderate to high level. There was a significant negative relationship between TikTok addiction and self-esteem ($r = -0.230, p < 0.01$), which indicates that the higher the TikTok addiction, the lower the student's self-esteem. This finding has important implications for the university in developing interventions to give awareness about the balance of social media use and the development of self-esteem among students.

1. Introduction

A serious effect of TikTok addiction is the one that involves self-esteem of the students as research shows 18.4% of university students worldwide show symptoms of social media addiction, with a higher rate reported in Asia at 22.8% [1]. Although TikTok offers engaging creative possibilities and social connecting opportunities, due to its highly curated content and focus on likes, views, and comments, the platform can encourage social comparison and validation-seeking tendencies. Spending too much time on the platform can cause the students to develop social confidence issues, as they might feel nervous or poorly prepared in real life scenarios associated with

This is an open access article under the CC BY-NC-SA 4.0 license.



presenting. The addictive nature of TikTok usually leads to situations where students prefer to spend time online rather than on their academic or personal tasks.

Self-esteem can be defined as the overall feeling that a person has about their own self-worth, and this is influenced by either a positive or negative outlook that a person has on themselves [2]. Other researchers indicate that social media addiction is more psychological in nature since young adults tend to use applications such as TikTok to escape condemnation and approval of others [3]. Social addiction is a condition that appears when people excessively rely on social media to satisfy informational and emotional desires. The users of TikTok are likely to require clarified and entertaining content, which leads to its extended use and increases addiction [4]. Individuals with low self-esteem are particularly vulnerable to the negative influences of TikTok, including a tendency to compare oneself to others and a reliance on social recognition through likes and comments, as well as exposure to unrealistic beauty and lifestyle standards [5], [6].

This study aims to determine the level of TikTok addiction among diploma students at Universiti Tun Hussein Malaysia (UTHM). Specifically, it seeks to identify the relationship between TikTok addiction and its impact on self-esteem among these students. This research will evaluate the extent of social media addiction and how it influences students' self-perception and emotional well-being. The primary focus is on students under the Centre of Diploma Studies (CeDS) at UTHM.

2. Methodology

In this research, the questionnaire survey consists of three sections. The first section contains questions related to respondent's background such as gender, course of study, time spent using TikTok daily and purpose of using TikTok. The second section is conducted to determine the level of social media addiction using the Bergen Social Media Scale (BSMAS). Respondents were asked to state how often they encountered situations or behaviors related to social media addiction. Assessment was made using a 5-point Likert Scale which is very rarely, rarely, sometimes, often and very often. The third section of the questionnaire was designed to determine the respondents' level of self-esteem using the Rosenberg Self-Esteem Scale (RSE). In this section, respondents were asked to indicate their level of agreement with each item related to self-esteem using a 4-point Likert scale, which strongly disagree, disagree, agree, and strongly agree. Negatively worded items were reverse coded before analysis to ensure the accuracy of the scores representing the respondent's true self-esteem level.

This study was focused on diploma students at UTHM. This is because diploma students are a young generation who actively use social media, especially TikTok apps, and have the potential to experience addiction and changes in self-esteem. Data collection in this study used random sampling from a population of UTHM diploma students who were from Diploma in Applied Science, Chemical Engineering Technology, Electrical Engineering, Civil Engineering, Mechanical Engineering, Information Technology and Animation Technology. The data collection process was carried out online using Google Forms. This form was distributed to students via WhatsApp groups and Telegram. This distribution was made to ensure that the questionnaire could be widely distributed to diploma students at UTHM.

After all the data were obtained from the questionnaire, the data were analysed using the Statistical Package for Social Sciences (SPSS). The main objective of this analysis is to assess the level of TikTok addiction and identify the relationship between TikTok addiction and self-esteem among diploma students. Spearman correlation analysis was used to examine the relationship between the two main variables, social media addiction and self-esteem. In addition, descriptive analysis such as frequency, percentage, mean, and standard deviation was also conducted to describe the respondents' profile as well as their level of TikTok addiction and self-esteem in general. This analysis helps to provide an initial picture of the students' social media usage habits and psychological well-being levels.

3. Results and Discussion

This study suggests that excessive use of TikTok is strongly related to lower self-esteem among UTHM diploma students.

Table 1 Frequency and percentage of respondent demographics

Demographic		Frequency	Percentage (%)
Gender	Male	125	58.1
	Female	90	41.9
Course	DAA	31	14.4
	DAE	49	22.8
	DAM	26	12.1

	DAT	33	15.3
	DAG	10	4.7
	DAK	21	9.8
	DAU	45	20.9
Hour	Less than 1 hour	42	19.5
	2-3 hours	78	36.3
Purpose	Education	95	44.2
	Entertainment	37	17.2
	Business	163	75.8
	Other	3	1.4

The demographic background of the respondents from the survey in this study is shown in Table 1. A total of 215 respondents were involved in this study, 125 respondents (58.1%) were male, while 90 respondents (41.9%) were female. The largest number of respondents were from DAE, with 49 individuals (22.8%), followed by students from DAU with 45 individuals (20.9%) and DAT with 33 individuals (15.3%). Other courses such as DAA, DAM, DAK and DAG recorded a lower percentage, with the DAG course recording the least number of respondents, 10 individuals (4.7%). Most respondents spent more than 3 hours daily using TikTok, which was 95 individuals (44.2%), followed by 2-3 hours spent on TikTok by 78 individuals (36.3%). Only 42 individuals (19.5%) spend less than 1 hour daily using TikTok. The purpose of using TikTok among respondents was also identified. The respondents spent several hours daily on social media for multiple reasons. The purpose of entertainment was the main reason with 163 individuals (75.8%) choosing this category. In addition, 37 individuals (17.2%) used TikTok for educational purposes followed by 12 individuals (5.6%) for other purposes such as shopping and following current issues. Only 3 individuals (1.4%) used TikTok for business purposes.

Table 2 Mean and standard deviation of BSMAS

Bergen Social Media Addiction Scale (BSMAS)	Mean	Std. Deviation
1. You spend a lot of time thinking about social media or planning how to use it.	2.9209	0.96590
2. You feel an urge to use social media more and more.	2.9070	1.03702
3. You use social media in order to forget about personal problems.	3.1116	1.14247
4. You have tried to cut down on the use of social media without success.	2.7628	0.99274
5. You become restless or troubled if you are prohibited from using social media.	2.5953	0.97107
6. You use social media so much that it has had a negative impact on your job/studies.	2.6279	1.05952

Table 2 shows the mean value and standard deviation for each of the 6 items of social media addiction among respondents. The study findings show that the level of social media addiction among diploma students is moderate, with the mean value for each BSMAS item ranging from 2.60 to 3.11. The item with the highest mean is item no. 3 "You use social media in order to forget about personal problems." which is 3.11 and a standard deviation of 1.143. This shows that social media is often used to deal with emotional stress or personal problems.

This shows the early signs of addiction in terms of obsessive thoughts and repetitive behaviors. This type of usage pattern is one of the main characteristics in measuring social media addiction, which involves aspects of salience and tolerance [7]. However, lower mean values, such as item no.6 "You use social media to the point of negatively affecting your work/study." and item no.5 "You become anxious or troubled if you are prohibited from using social media" indicate that the impact of addiction on daily function is still manageable among respondents. This may be due to self-awareness or environmental influences. The standard deviation value exceeds 1.0 for some items, such as item no. 3 indicates that there is significant variation in social media usage among respondents, which may be influenced by personal factors such as family background and emotional stability.

Table 3 Mean and standard deviation of RSE

Rosemberg Self-Esteem Scale (RSE)	Mean	Std. Deviation
1. On the whole, I am satisfied with myself.	2.8326	0.71031
2. At times I think I am no good at all.	2.5767	0.81597

3. I feel that I have a number of good qualities.	2.8233	0.69472
4. I am able to do things as well as most other people.	2.7907	0.72853
5. I feel I do not have much to be proud of.	2.5302	0.83036
7. I feel that I'm a person of worth.	2.4419	0.81178
8. I wish I could have more respect for myself.	2.7767	0.72757
9. All in all, I am inclined to think that I am failure.	1.9814	0.72963
10. I take a positive attitude toward myself.	2.7395	0.82432

Based on Table 3, this study shows that the level of self-esteem among respondents is at a moderate level based on the mean value for each item in the Rosenberg Self-Esteem Scale (RSE), which is in the range of 1.98 to 3.03. The item that recorded the highest mean is item no.10 "I take a positive attitude toward myself." with a mean value of 3.03, followed by item no.1 "On the whole, I am satisfied with myself." with a mean value of 2.83 and item no.3 "I feel that I have a number of good qualities." with a mean value of 2.82. This finding shows that the majority of respondents have a fairly positive view of themselves and acknowledge their strengths and personal values. However, there were some negative items that indicated experiences of lower self-esteem, such as item no.9 "Overall, I tend to think that I am a failure." with a mean value of 2.74 and item no.2 "There are times when I feel like I am not good at all." with a mean value of 2.58. This reflects the feelings of self-doubt that sometimes arise among students, especially when faced with academic pressure or social comparison. In addition, item no.8 "I wish I could have more respect for myself." recorded the lowest mean of 1.98 which shows that most respondents rarely experience extremely low self-esteem. This indicates that even though negative feelings occasionally arise, students still maintain a stable level of self-esteem in their daily lives. All standard deviation values for the RSE item scores ranged from 0.695 to 0.830, indicating moderate variation in the answers given by respondents. This indicates that the experiences of self-esteem among students are not very different from each other, and the majority have a balanced self-perception.

Table 4 Test of normality for BSMAS and RSE

	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	Total	p	Statistic	Total	p
BSMAS	0.103	215	0.000	0.987	215	0.056
RSE	0.086	215	0.001	0.984	215	0.016

Normality tests were used to determine whether the data distribution of the key variables in this study, that is, BSMAS and RSE, could follow the normal distribution. Two statistical tests were used, Kolmogorov-Smirnov and Shapiro-Wilk, to test the normality of the data for both variables. Based on Table 4, the results of the test showed that the significance value (p) for both variables was less than 0.05, $p=0.000$ for BSMAS and $p=0.001$ for RSE in the Kolmogorov-Smirnov test. This showed that neither of the two data sets was normally distributed. Therefore, the non-parametric statistical method, the Spearman correlation test, was chosen as the appropriate method to analyze the relationship between social media addiction and self-esteem. The choice of Spearman is because this method is more suitable for use when the data distribution is not normal.

Table 5 Reliability of BSMAS and RSE

Survey	Cronbach's Alpha	Total of item
BSMAS	0.731	6
RSE	0.790	10

Table 5 represents Cronbach's Alpha coefficient values for the two psychometric instruments used in this study, which are BSMAS and RSE. Cronbach's Alpha is used to measure the internal reliability of an instrument, which is the extent to which items in a scale measure the same construct consistently. In general, a value of $\alpha \geq 0.70$ is considered acceptable in research [8]. BSMAS recorded an α value above 0.70, indicating that all items on this scale have a satisfactory level of internal consistency in measuring the level of social media addiction among diploma students. While the RSE showed a higher reliability value of $\alpha = 0.79$. This indicates that the RSE can measure self-esteem levels consistently among respondents. Overall, both instruments showed good levels of reliability and were suitable for further analysis purposes, such as correlation analysis.

Table 6 Mean of BSMAS and RSE

Survey	Mean	Total
BSMAS score	16.9256	215
RSE score	26.5256	215

Table 6 shows the mean of the BSMAS and RSE scores. The BSMAS score is derived from six items rated on a five-point Likert scale. Therefore, the total score ranges from 6 to 30, with higher scores indicating a higher level of social media addiction. Based on the average BSMAS score of 16.93, it is still below the social media addiction risk score of 24 [9]. This indicates that the level of addiction of the students in this study is moderate on average. However, this average still needs monitoring, especially among students who belong to part of the digital generation. Meanwhile, the average RSE score is 26.59 based on ten items assessed using a 4-point Likert scale with a range of 10 to 40 [2]. This score indicates that the students' self-esteem level is moderate. This shows that there is a positive self-perception among students despite being exposed to active social media use.

Table 7 Spearman correlation between BSMAS and RSE

			BSMAS	RSE
Spearman's rho	BSMAS	Correlation Coefficient	1.000	-0.230**
		Sig. (2-tailed)	.	0.001
		Total	215	215
RSE	RSE	Correlation Coefficient	-0.230**	1.000
		Sig. (2-tailed)	0.001	.
		Total	215	215

Spearman correlation analysis was conducted to determine the relationship between the level of TikTok addiction and the level of self-esteem among diploma students at UTHM. The results of the analysis are shown in Table 7. The results showed that there was a negative and significant relationship between TikTok addiction and self-esteem ($r = -0.230, p=0.001$). This indicates that the higher the level of social media addiction, the lower the level of self-esteem. Although the strength of this relationship is weak, it is still considered statistically significant because the p-value is less than 0.01. This finding is similar to previous studies that also found a negative relationship between social media addiction and self-esteem [10].

4. Conclusion

This study shows that, on average, diploma students at UTHM are at a moderate level in social media use based on the BSMAS score, which is below the value that indicates the risk of addiction, which is 24. This study has also identified the relationship between the level of TikTok addiction and self-esteem among students. Based on Spearman correlation analysis, there is a significant negative relationship between social media addiction and self-esteem. This means that the higher the level of social media addiction, the lower the student's self-esteem. Although the strength of the correlation is at a weak level, it is still statistically significant and deserves attention. The findings of this study can assist the university in developing focused intervention programs, such as mental health awareness, promoting healthier social media habits, and screen time management. Further research is suggested to involve students from different levels of study to achieve a more holistic understanding and identify mediating factors such as academic pressure or social support.

Acknowledgement

The author would like to thank the Centre for Diploma Studies, Universiti Tun Hussein Onn Malaysia for its support.

Conflict of Interest

Authors declare that there is no conflict of interests regarding the publication of the paper.

Author Contribution

The authors confirm contribution to the paper as follows: **study conception and design:** Tuan Nursafiah Tuan Lokman, Marina Nur Hidayah Mohammad Hazli, Mohammad Aiman Mohd Nasir, Nuramirah Juma'at; **data collection:** Tuan Nursafiah Tuan Lokman, Marina Nur Hidayah Mohammad Hazli, Mohammad Aiman Mohd Nasir, Nuramirah Juma'at; **analysis and interpretation of results:** Tuan Nursafiah Tuan Lokman, Marina Nur Hidayah

Mohammad Hazli, Mohammad Aiman Mohd Nasir, Nuramirah Juma'at; **draft manuscript preparation:** Tuan Nursafiah Tuan Lokman, Marina Nur Hidayah Mohammad Hazli, Mohammad Aiman Mohd Nasir, Nuramirah Juma'at, Norain Ahmad Nordin. All authors reviewed the results and approved the final version of the manuscript.

References

- [1] N. Salari, H. Zarei, A. Hosseinian-Far, S. Rasoulpoor, S. Shohaimi, and M. Mohammadi, "The global prevalence of social media addiction among university students: a systematic review and meta-analysis," *Journal of Public Health*, Jul 2023.
- [2] M. Rosenberg, "Rosenberg Self-Esteem Scale (RSE)," Measures Package, revised Oct. 4, 2006. [Online]. Available: <https://www.apa.org/obesity-guideline/rosenberg-self-esteem.pdf>
- [3] B. F. Piko, S. K. Krajczár, and H. Kiss, "Social media addiction, personality factors and fear of negative evaluation in a sample of young adults," *Youth*, vol. 4, no. 1, pp. 357–368, Mar 2024.
- [4] X. Wang and Y. Guo, "Motivations on TikTok addiction: The moderating role of algorithm awareness on young people," *El Profesional De La Informacion*, Jul 2023.
- [5] A. K. Saraswat and V. S. Meel, "A study of social media and cyber bullying," in *Advances in Human and Social Aspects of Technology Book Series*, 2023, pp. 296–303.
- [6] I. Aslan and H. Polat, "Investigating social media addiction and impact of social media addiction, loneliness, depression, life satisfaction and problem-solving skills on academic self-efficacy and academic success among university students," *Frontiers in Public Health*, vol. 12, Jul 2024.
- [7] N. B. Ndubuisi-Evans, "Social media addiction and academic performance of undergraduate students", *Journal of Professional Counselling and Psychotherapy Research*, vol. 5, no. 1, Apr 2024.
- [8] N. Ahmad, F. A. Alias, M. Hamat, and S. A. Mohamed, "Reliability analysis: Application of Cronbach's alpha in research instruments," SIG: e-Learning@CS, Universiti Teknologi MARA Cawangan Pulau Pinang, Malaysia, e-ISBN: 978-629-98755-2-9, Sep. 18, 2024. [Online]. Available: <https://appspenang.uitm.edu.my/sigcs/>
- [9] T. Luo, L. Qin, L. Cheng, S. Wang, Z. Zhu, J. Xu, Y. Liao, "Determination the cut-off point for the Bergen social media addiction (BSMAS): Diagnostic contribution of the six criteria of the components model of addiction for social media disorder," *Journal of Behavioral Addictions*, vol. 10, no. 2, pp. 281–290, May 2021, doi: 10.1556/2006.2021.00025.
- [10] M. Jan, S. A. Soomro, and N. Ahmad, "Impact of social media on self-esteem," *European Scientific Journal*, vol. 13, no. 23, p. 329, Aug 2017.