Exploring the Relationship Between Social Media Use and Academic Performance Among SNSEP-OIC Students: A Descriptive Analysis

Art Menkoon[1], Maimuang Maokamnerd[2], Patiphat Kulab[3], Narakan Champangoenrungrot[4], Juanito A. Como Jr.[5]

[1,2,3,4,5]Saint Nicholas School, Thailand, 65000
Email address: artilion@gmail.com, mmaokamnerd@gmail.com, pathiphatkulab2549@gmail.com, champangoenrungrot06@gmail.com, echo_como@yahoo.com

Abstract— This research employed a descriptive-correlational approach to explore the relationship between social media use and academic performance among Grade 7 to 12 students at SNSEP-OIC. Ninety respondents, representing 82.57% of the total population, were selected through simple random sampling. Statistical tools such as frequency and percentage distribution were used to interpret respondents' profiles, while 5-point Likert scale measured students' perceptions of social media's impact on academic performance. Mean computation and Two-Sample T-Test or Welch's T-Test were utilized to analyze differences in perceptions and academic performance based on demographic factors. Findings revealed diverse patterns of social media usage among students, with many spending over three hours on various platforms. Instagram emerged as the most popular platform, utilized for both social and educational purposes. Students' perceptions regarding social media's impact on academic performance were consistent across sex, age, and grade level, with no significant differences observed. Interestingly, students maintained satisfactory academic performance despite engagement with social media. While academic performance similarities were noted across sex, differences surfaced concerning age and grade level. This study sheds light on the complex relationship between social media use and academic performance among students, emphasizing the need for further research and nuanced interventions in educational settings.

Keywords— Social Media, Academic Performance, Student Perceptions, Demographic Factors, Educational Interventions.

I. INTRODUCTION

In today's digital era, social media has seamlessly integrated into daily life, transforming how individuals connect, communicate, and share information. While its benefits are evident, concerns have arisen regarding its impact on academic performance. This study explores the nuanced relationship between social media usage and the academic achievements of students at SNSEP-OIC, aiming to understand how students perceive the interaction between their social media activities and scholastic success.

Social media platforms, renowned for their global connectivity and vast content offerings, also present societal challenges such as cyberbullying, mental health issues, and misinformation (O'Keeffe & Clarke-Pearson, 2011). Younger users, particularly susceptible to peer influence and lacking mature self-regulation, face heightened risks in this digital environment. The study investigates how these dynamics affect students' academic engagement and outcomes.

Research indicates that extensive social media use can disrupt academic focus and productivity due to constant notifications and distractions (O'Keeffe & Clarke-Pearson, 2011). Moreover, the addictive nature of these platforms often leads to procrastination and poor time management, impacting academic performance negatively. Sleep deprivation, linked to late-night social media use, further compromises cognitive function and academic success.

The concept of "social capital" in relation to social media, explored in studies like Schrock (2016) for parents, prompts us to examine whether similar benefits extend to students, fostering connections with peers and educators that influence academic performance. This study aims to uncover whether there is a reciprocal relationship between academic success and social media use, exploring if certain patterns of social media engagement might enhance educational outcomes (Badri et al., 2017).

By exploring students' perspectives on how social media intersects with their educational experiences, this research aims to provide insights crucial for educators, parents, and stakeholders. These insights can inform strategies to support students in achieving academic success while navigating the challenges and opportunities presented by social media in a responsible and beneficial manner.

The study referenced the work of Kolan and Dzandza (2018), which investigated the relationship between social media usage and academic performance among university students in Ghana, revealing both positive and negative impacts. Employing a descriptive-correlational research design, this study aimed to assess students' perceptions and academic achievements. It sought to answer several research questions:

1. What is the profile of the respondents with respect to sex, age, and grade level?
2. What is the amount of time spent on social media?
3. What are social media platforms used?
4. What are the students' perceptions regarding the impact of social media use on their academic performance?
5. What is the academic performance level of the students?

6. Is there a difference in students' academic performance in terms of to sex, age, and grade level?

These inquiries aimed to provide a comprehensive understanding of how social media impacts academic outcomes, thereby informing recommendations for responsible social media use among students.

II. METHODOLOGY

A. Research Design and Population

The researchers employed a descriptive-correlational research design to examine the nuanced relationship between social media use and academic performance among Grade 7 to 12 students at SNSEP-OIC. This study was conducted within the academic setting of Saint Nicholas School English Programme - OIC, located at 228 Wisuthikasat Road, Muang District, Phitsanulok, Thailand. The sample comprised 90 respondents selected through simple random sampling, representing a substantial 82.57% of the total student population across these grade levels. This approach ensured a comprehensive exploration of how social media engagement relates to students' academic achievements in a real-world educational context.

B. Research Instruments and Data Gathering Tools

To facilitate a comprehensive assessment, a survey questionnaire adapted from Kolan and Dzandza (2018) was utilized to probe students' perspectives on the influence of social media on their academic performance. This data gathering instrument underwent comprehensive translation into Thai language and was administered via Google Forms. Google Forms was chosen for its accessibility, ease of distribution, and efficient data collection capabilities, ensuring seamless administration and prompt aggregation of responses. Structured into distinct sections, the questionnaire encompassed demographic details such as gender, age, and grade level, alongside inquiries into social media usage habits, preferred platforms, and students' perceptions regarding the impact of social media on their academic achievements. Respondents provided feedback using a 5-point Likert scale, enabling nuanced insights into their attitudes.

TABLE 1. 5-Point Likert Rating Scale.

Weight/Scale	Mean Range	Verbal Interpretation
1	1.00 – 1.79	Strongly Disagree
2	1.80 – 2.59	Disagree
3	2.60 – 3.39	Moderately Agree
4	3.40 – 4.19	Agree
5	4.20 – 5.00	Strongly Agree

Concurrently, academic grades for the First Semester of Academic Year 2023 were sourced from teachers using a standardized grading rubric, facilitating a comprehensive evaluation of the correlation between social media engagement and academic performance.

C. Statistics

The data collected underwent thorough statistical analysis to better understand the study's goals. Initial analysis involved categorizing, counting, and summarizing responses using frequency and percentage distributions, which provided a detailed view of respondent profiles. A key part of the methodology was using a 5-point Likert scale (ranging from 1 - Strongly disagree to 5 - Strongly agree) in the survey questionnaire. This scale helped explore students' views on how social media impacts academic performance, offering insights into different levels of agreement or disagreement among respondents.

To quantify these perceptions accurately, mean calculations were used to determine the average range of sentiments towards social media's influence on academic achievement. This statistical method helped identify central trends and variations within the data, enhancing the reliability and depth of the findings.

Furthermore, to assess differences across demographic variables like sex, age, and grade level, statistical tests such as the Two-Sample T-Test or Welch's T-Test were applied. These tests allowed comparisons between groups, examining whether differences in perceptions of social media's impact on academic performance varied significantly based on demographic characteristics. Additionally, the tests were instrumental in analyzing differences in academic performance across these demographic groups, providing a comprehensive evaluation of how social media usage might correlate with varying levels of academic achievement among students.

III. RESULTS

A. Profile of the Respondents

TABLE 2. Profile of the Respondents.

Sex	Male	55.56%
	Female	44.44%
Age	12	6.67%
	13	23.33%
	14	21.11%
	15	17.78%
	16	8.89%
	17	13.33%
	18	8.89%
Grade Level	Grade 7	21.11%
	Grade 8	21.11%
	Grade 9	25.56%
	Grade 10	6.67%
	Grade 11	12.22%
	Grade 12	13.33%

Table 2 provides a detailed profile of the respondents in terms of sex, age, and grade level. Among the 90 respondents, 50 were male (55.55%) and 40 were female (44.44%), indicating a slight majority of male participants. Regarding age distribution, the largest group consisted of 21 students (23.33%) aged 13, followed by 19 students (21.11%) aged 14. Additionally, 16 students (17.78%) were aged 15, 12 students (13.33%) were aged 17, and 8 students (8.89%) were aged 16. Eight students (8.89%) were aged 18, and 6 respondents (6.67%) were aged 12, showing a varied age representation among the respondents. In terms of grade levels, Grade 9 had the highest representation with 23 students (25.56%), followed by Grade 7 and Grade 8, each with 19 students (21.11%). Furthermore, 12 students (13.33%) were from Grade 12, 11 students (12.22%) from Grade 11, and 6 students (6.67%)

from Grade 10, highlighting Grade 9 as the predominant grade level among the respondents.

B. Hours Spent on Social Media

TABLE 3. Hours Spent on Social Media.

Q.1. On an average school day, how many hours do you spend on social media?	Percent (%)
Less than 1 hour	7.78
1-2 hours	23.33
2-3 hours	28.89
More than 3 hours	38.89
I don't use social media on school days.	1.11
Q.2. How often do you check social media during your online classes or study sessions?	
Never	5.56
Rarely	27.78
Sometimes	40.00
Often	18.89
Always	7.78
Q.3. Do you think the time you spend on social media affects your schoolwork?	
Not at all.	27.78
A little.	33.33
Somewhat.	24.44
Quite a bit.	4.44
A lot.	10.00

Table 3 outlines respondents' social media usage and perceptions. Of 90 participants, 7.78% spent less than 1 hour, 23.33% spent 1-2 hours, and 28.89% spent 2-3 hours daily. Notably, 38.89% spent more than 3 hours, with 1.11% abstaining on school days. Regarding checking social media during classes, 40% did so 'Sometimes', and 5.56% 'Never'. Assessing social media's impact on schoolwork, 33.33% felt 'A little' impact, and 4.44% 'Quite a bit'. These findings underscore widespread daily social media use, potentially influencing academic engagement and performance.

C. Social Media Platforms Used

TABLE 4. Social Media Platforms Used.

Q.4. Which social media platform do you use the most?	Percent (%)
Facebook	5.56
Instagram	50.00
Twitter (X)	4.44
TikTok	30.00
Snapchat	0
WhatsApp	0
Other	10.00
Q.5. How many different social media platforms do you use regularly?	
One	6.67
Two	21.11
Three	35.56
Four or more	36.67
I don't use social media.	0
Q.6. Do you use social media primarily for socializing with friends, for educational purposes, or a combination of both?	
Primarily for socializing	20
Primarily for educational purposes	18.89
A combination of both	61.11

Table 4 presents findings on respondents' social media platform usage. Regarding Question 4, 'Instagram' emerged as the most popular platform, utilized by 50% of respondents, followed by TikTok (30%), and other platforms (10%). Fewer respondents reported using Facebook (5.56%) and Twitter

(4.44%), while Snapchat and WhatsApp showed no usage. For Question 5, 36.67% of respondents regularly use four or more platforms, while 6.67% use only one platform regularly, with none abstaining from social media. In Question 6, 61.11% of respondents use social media for both socializing and educational purposes, 20% primarily for socializing, and 18.89% primarily for educational purposes. These results underscore Instagram's dominance among platforms used and a preference for dual socializing and educational use.

D. Students' Perceptions Regarding the Impact of Social Media Use on Academic Performance

TABLE 5. Students' Perceptions Regarding the Impact of Social Media Use on Academic Performance.

Q.7. Do you believe that using social media distracts you from your studies?	Percent (%)
Strongly disagree	5.56
Disagree	16.67
Moderately agree	51.11
Agree	20.00
Strongly agree	6.67
Q.8. How many different social media platforms do you use regularly?	
Negatively	4.44
Slightly negatively	26.67
Moderately Agree	37.78
Positively	24.44
Very positively	6.67
Q.9. In your opinion, does social media have a positive or negative impact on your academic performance?	
Very negative	2.22
Negative	8.89
Moderately Agree	66.67
Positive	20.00
Very positive	2.22
Q.10. To what extent do you feel that social media usage influences your grades?	
Not at all	23.33
A little	28.89
Somewhat	30.00
Quite a bit	11.11
Significantly	6.67
Q.11. Have you ever tried to limit your social media usage to improve your academic performance?	
Yes, and it helped.	35.56
Yes, but it didn't help.	26.67
No, but I've considered it.	27.78
No, and I don't want to answer.	10.00

Table 5 summarizes respondents' perceptions regarding the impact of social media on academic performance. In Question 7, 51.11% expressed neutrality towards social media's distraction from studies, while 20% agreed, 16.67% disagreed, and smaller percentages strongly agreed or disagreed.

Question 8 revealed 37.78% of respondents believed social media had no impact on concentration, with 26.67% indicating slight negative impact, and 22.22% viewing it positively. Question 9 indicated 66.67% felt neutral about social media's overall impact on academic performance, with 20% perceiving a positive impact and smaller percentages perceiving negative or very positive impacts.

Question 10 showed varied responses to the degree of impact on academic performance, with 30% indicating somewhat and 28.89% a little impact, and 23.33% stating no

impact at all. Lastly, Question 11 revealed 35.56% of respondents had considered changing their social media habits to improve academic performance, while 27.78% had thought about it, and smaller percentages had already tried or had no intention to change. These findings highlight diverse perceptions among students regarding the influence of social media on their academic endeavors.

E. Academic Performance Level of Respondents

TABLE 6. Academic Performance Level of Respondents.

Grade Level	Academic Performance Level (General Average)	Verbal Interpretation
7	3.21	Good
8	3.13	Good
9	3.29	Good
10	3.30	Good
11	3.35	Good
12	2.93	Satisfactory
Overall Mean	**3.20**	**Good**

Table 6 summarizes the academic performance of respondents across various grade levels during the First Semester of Academic Year 2023, encompassing both Thai and English subjects. The grades are assessed on a scale where A represents Excellent (4.00), B+ denotes Very Good (3.50), B signifies Good (3.00), C+ indicates Fairly Good (2.50), C denotes Fair (2.00), D+ signifies Poor (1.50), D denotes Very Poor (1.00), and F represents Fail (0.00).

The overall mean grade of 3.20 falls within the 'Good' category, indicating a commendable level of academic achievement on average among the respondents. Grades 7 through 11 consistently achieved within the 'Good' range, with average grades ranging from 3.13 to 3.35. Notably, Grade 12 exhibits a slightly lower average of 2.93, categorized as 'Satisfactory'. These findings suggest a generally positive academic performance trend across the grade levels, with Grade 12 showing a marginal deviation in performance compared to other grades.

F. Differences in Students' Academic Performance in Terms of Sex, Age, and Grade Level

TABLE 7. Differences in Students' Academic Performance in Terms of Sex, Age, and Grade Level.

	p-value	Standard Deviation	Remarks	Decision
Sex	0.07575	5.000	Not Significant	Accept the null hypothesis
Age	0.004921	2.231	Significant	Reject the null hypothesis
Grade Level	0.00612	2.596	Significant	Reject the null hypothesis

Table 7 illustrates the differences in students' academic performance in terms of sex, age, and grade level. For sex, the obtained p-value of 0.07575 suggests that the difference in academic performance between male and female students is not statistically significant at the chosen significance level, leading to the conclusion that there is no significant difference based on sex.

Conversely, the analysis for age reveals a p-value of 0.004921, which is below the significance threshold. This indicates a statistically significant difference in academic

performance among different age groups. The standard deviation of 2.231 underscores the substantial nature of this variance, leading to the rejection of the null hypothesis in favor of the alternative, which suggests that age significantly impacts academic performance.

Similarly, the p-value of 0.00612 for grade level points to a statistically significant difference in academic performance across different grades. With a standard deviation of 2.596, this result supports rejecting the null hypothesis and confirms that grade level has a significant influence on academic performance.

IV. DISCUSSIONS

In Table 2, it reveals that while gender does not significantly impact academic performance, age and grade level do, with younger students and those in Grade 9 being the most represented and showing notable differences. These findings align with existing literature, such as Kim (2017) and O'Keeffe & Clarke-Pearson (2011), which also highlight age-related variations in social media's impact. Heavy social media usage, exceeding three hours daily, was prevalent among respondents, similar to trends reported by Carrier (2018) and Kolan & Dzandza (2018), with Instagram being the most popular platform. The mixed impacts on academic performance observed in this study, with some students reporting slight negative effects, are consistent with the findings of Talaue et al. (2018) and Habes et al. (2018). These results emphasize the need for balanced social media use to mitigate potential negative impacts on academic focus, echoing broader research trends globally.

In Table 3, the findings show that 38.89% of the total number of respondents spend over 3 hours on social media, consistent with broader research like Badri et al. (2017) on social networking's impact on school performance. In terms of social media use during academics, 40% of 70 respondents check it "Sometimes," and 5.56% respond with "Never," aligning with Carrier's (2018) insights on technology's effect on attention. Regarding perceived impact on academics, 33.33% responded "A little," and 4.44% responded "Quite a bit," echoing findings in studies like Habes et al. (2018) and Talaue et al. (2018). These results serve as a useful comparison within the broader context of existing research, recognizing each study's unique focus on the relationship between social media and academic performance.

In Table 4, the general findings from the referenced studies suggest that social media use among students can impact various aspects of their academic performance and well-being. Badri et al. (2017) in Abu Dhabi explore reciprocal relationships between school performance and social networking effects. Carrier (2018) examines the wider impact of technology on behaviour. Habes et al. (2018) focuses on the relationship between social media, especially Facebook, and academic achievement. Kim (2017) analyzes the impact of online social networking on adolescent psychological well-being. Talaue et al. (2018) examine the impact of social media on the academic performance of selected college students. These studies provide a context for understanding how social media use may intertwine with academic outcomes and overall

well-being.

In Table 5, the findings on the social media usage among students show both similarities and differences with the cited references. Instagram was the most used platform (50%), followed by TikTok (30%), while Facebook usage was low (5.56%). This contrasts with Habes et al. (2018), which highlighted Facebook's dominance, indicating a shift towards visual platforms. The preference for Instagram aligns with Carrier (2018), which noted the appeal of image-centric networks among adolescents. This study found 36.67% of students use four or more social media platforms regularly, indicating broad engagement. This is consistent with Talaue et al. (2018) but contrasts with Kim (2017), which suggested heavy users focus on fewer platforms. Additionally, 61.11% of respondents use social media for both socializing and educational purposes, aligning with Badri et al. (2017) and Schrock (2016), but diverging from O'Keeffe & Clarke-Pearson (2011), which suggested more polarized use.

Overall, the study highlights a shift from platforms like Facebook to Instagram and TikTok and underscores the dual role of social media in supporting both social and educational activities among students.

In Table 6, the findings on similar studies about students' perceptions of social media's impact on academic performance align with broader research. In Question 7, 51.11% responded neutrally to the notion that social media distracts them, consistent with discussions in studies like O'Keeffe and Clarke-Pearson (2011) on the distractions posed by social media. Question 8 revealed varied responses, with 37.78% stating no impact, reflecting the multifaceted nature of social media's influence, as studied in works like Strasburger et al. (2010) on health effects. The nuanced perspectives captured in Question 9, where 66.67% responded neutrally to the overall impact, resonate with studies exploring the broader effects of technology, such as those by Carrier (2018) and Talaue et al. (2018). Questions 10 and 11 further contribute insights into students' perceptions of social media's influence on academic engagement and problem-solving strategies, adding depth to existing literature on this subject.

In Table 7, in comparison between academic performance and various factors suggested in the referenced studies, this suggests positive associations. Badri et al. (2017) and Carrier (2018) investigate school performance, social networking effects, and learning, providing evidence of reciprocal relationships and potential influence in academic outcomes. Moreover, Kim (2017) focuses on the psychological well-being of school-aged children affected by online social networking, which could indirectly influence academic performance. Kolan and Dzandza (2018) specifically study the effect of social media on academic performance in Ghanaian universities, contributing insights into this context. While the references don not directly mirror the structure of the study, they collectively provide a background on the multifaceted relationships between technology, social media, and academic performance, supporting the notion that various factors may contribute to the observed variations across grade levels in the presented data.

In Table 7, the referenced studies collectively explore diverse aspects related to the relationship between sex and academic performance, indicating that multiple factors, including technology and social media, may influence academic outcomes. The findings from Table 6, which show the non-significant influence of sex on academic performance, align with these insights, suggesting that sex may not be a significant determinant of academic success within the context of the literature reviewed (Badri et al., 2017; Carrier, 2018; Habes et al., 2018).

Additionally, the study highlights the significant role of age in shaping students' academic achievements, leading to the rejection of the null hypothesis. While the cited studies provide comprehensive insights into the impacts of technology and social media on students, they may not explicitly address age-related variations in academic performance. In contrast, the current study contributes valuable insights by specifically highlighting the connection between age and academic achievement, potentially filling a gap in the existing literature.

In comparison to existing literature, the study closely aligns with the work of Habes et al. (2018) and Talaue et al. (2018), both of which investigate the influence of social media on academic performance. However, it's essential to acknowledge that differences in focus and methodologies across studies contribute to variations in outcomes.

In summary, the data underscores that while sex does not significantly influence academic performance, both age and grade level play significant roles in determining students' academic success.

V. CONCLUSIONS AND RECOMMENDATIONS

Table 2 reveals that while gender does not significantly impact academic performance, age and grade level do, with younger students and those in Grade 9 being the most represented and showing notable differences. These findings align with existing literature, such as Kim (2017) and O'Keeffe & Clarke-Pearson (2011), which also highlight age-related variations in social media's impact. Heavy social media usage, exceeding three hours daily, was prevalent among respondents, similar to trends reported by Carrier (2018) and Kolan & Dzandza (2018), with Instagram being the most popular platform. The mixed impacts on academic performance observed in this study, with some students reporting slight negative effects, are consistent with the findings of Talaue et al. (2018) and Habes et al. (2018). These results emphasize the need for balanced social media use to mitigate potential negative impacts on academic focus, echoing broader research trends globally.

Table 3 reveals that 38.89% of the total number of respondents spend over 3 hours on social media, consistent with broader research like Badri et al. (2017) on social networking's impact on school performance. In terms of social media use during academics, 40% of 70 respondents check it "Sometimes," and 5.56% respond with "Never," aligning with Carrier's (2018) insights on technology's effect on attention. Regarding perceived impact on academics, 33.33% responded "A little," and 4.44% responded "Quite a bit," echoing findings in studies like Habes et al. (2018) and Talaue et al. (2018). These results serve as a useful comparison within the

broader context of existing research, recognizing each study's unique focus on the relationship between social media and academic performance.

REFERENCES

[1]. [Anderson, D. L., & Graham, A. P. (2016). Improving student wellbeing: Having a say at school. School Effectiveness and School Improvement, 27(3), 348-366. https://doi.org/10.1080/09243453.2015.1084336

[2]. Assana, S., Laohasiriwong, W., & Rangseekajee, P. (2017). Quality of life, mental health and educational stress of high school students in the Northeast of Thailand. Journal of Clinical and Diagnostic Research, 11(8), VC01-VC06. https://doi.org/10.7860/JCDR/2017/29209.10429

[3]. Becchetti, L., & Pisani, F. (2014). Family economic well-being, and (class) relative wealth: An empirical analysis of life satisfaction of secondary school students in three Italian cities. Journal of Happiness Studies, 15(2), 503-525. https://doi.org/10.1007/s10902-013-9433-z

[4]. Bladek, M. (2021). Student well-being matters: Academic library support for the whole student. The Journal of Academic Librarianship, 47, 102349. https://doi.org/10.1016/j.acalib.2021.102349

[5]. Carroll, A., York, A., Fynes-Clinton, S., Sanders-O'Connor, E., Flynn, L., Bower, J. M., Forrest, K., & Ziaei, M. (2021). The downstream effects of teacher well-being programs: Improvements in teachers' stress, cognition and well-being benefit their students. Frontiers in Psychology, 12, 689628. https://doi.org/10.3389/fpsyg.2021.689628

[6]. Clement, N. (2010). Student wellbeing at school: The actualization of values in education. In Lovat, T., Toomey, R., & Clement, N. (Eds.), International Research Handbook on Values Education and Student Wellbeing (pp. 19-36). Springer. https://doi.org/10.1007/978-90-481-8675-4_3

[7]. Henrich, K. (2020). Supporting student wellbeing and holistic success: A public services approach. The International Information & Library Review, 52(3), 235-243.https://doi.org/10.1080/10572317.2020.1785171

[8]. Nelson, M., Tarabochia, D., & Koltz, R. (2015). PACES: A model of student well-being. Journal of School Counselling, 13, 1-34.

[9]. https://eric.ed.gov/?id=EJ1079029

[10]. Soutter, A. K., O'Steen, B., & Gilmore, A. (2014). The student well-being model: A conceptual framework for the development of student well-being indicators. International Journal of Adolescence and Youth, 19(4), 496-520. https://doi.org/10.1080/02673843.2012.754362

[11]. Stallman, H. M., Ohan, J. L., & Chiera, B. (2018). The role of social support, being present and self-kindness in university student well-being. British Journal of Guidance & Counselling, 46(4), 365-374.

[12]. https://doi.org/10.1080/03069885.2017.1343458

[13]. Torres, R. L., Madera, M. V., & Basilio, L. (2023). KUMUSTA KA?_SABAI DEE MAI?' (สบายดีไหม) Exploring the well-being of Southeast Asian learners towards the development of a holistic self-care framework. International Journal of New Technology and Research, 9(8), 32-41. https://www.ijntr.org/download_data/IJNTR09080009.pdf

[14]. Van den Bogerd, N., Dijkstra, S. C., Koole, S. L., Seidell, J. C., de Vries, R., & Maas, J. (2020). Nature in the indoor and outdoor study environment and secondary and tertiary education students' well-being, academic outcomes, and possible mediating pathways: A systematic review with recommendations for science and practice. Health & Place, 66, 102403. https://doi.org/10.1016/j.healthplace.2020.102403

[15]. Van Petegem, K., Aelterman, A., & Rosseel, Y. (2007). Student perception as moderator for student wellbeing. Social Indicators Research, 83(3), 447–463. https://doi.org/10.1007/s11205-006-9055-5