

Technical Article

A Survey on BeReal among University Students: Focus on Learning Motivation and Privacy Consciousness

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Abstract

The purpose of this study was to determine university students' thoughts on the use of BeReal. After clarifying these ideas, we compared and examined the differences in learning motivation and privacy consciousness by use, non-use, and differences in thinking. The survey population consisted of 368 university students. The survey included “items on thoughts about using BeReal”, “Learning Motivation Scale”, and “Privacy Consciousness Scale”. The results of this study indicated that BeReal is becoming more common among university students, and that many of them are willing to contribute during class. Also, it revealed that university students who use BeReal tend to be less learning motivation than those who do not use BeReal. Furthermore, the group that posts BeReal during class tends to have lower awareness of and behavior to maintain their own privacy than the group that does not post BeReal during class.

Keywords: SNS, smartphone, university education, information literacy education

1. Introduction

According to a survey conducted by the Ministry of Internal Affairs and Communications in 2023 (MIC, 2024), the smartphone ownership rate reached 97.5%, with most Japanese citizens using smartphones. The results of the “Life Time Survey of Media Use (NHK Broadcasting Culture Research Institute, 2022)” in 2021 showed that the average time spent using smartphones was 1 hour and 18 minutes per day. However, a survey conducted in 2024 by Citizen Watch Co., Ltd. (2024) reported that the majority (53.6%) used smartphones for an average of “3 hours or more” per day, with approximately 20% of those in their 20s to 40s using them for “5 hours or more”. In any case, it is clear that smartphone use has become a part of daily life. It is thought that the time spent using smartphones has lengthened due to their increased convenience, but the spread of SNS is presumed to be the main factor. According to data from the Ministry of Internal Affairs and Communications (MIC, 2024) on usage rates by major SNS in 2023, LINE (94.9%), YouTube (87.8%), Instagram (56.1%), X (49.0%), and TikTok (32.5%) were the most popular, in that order. Although it is not possible to determine the duration of use from these data, it is possible to read the prevalence of SNS.

While SNSs have become a part of daily life in this way, a negative relationship between SNS use and academic performance has been confirmed (Lee, 2014), and there is concern that SNSs may have a negative impact on academic performance. However, the results are mixed, with some studies finding a positive correlation (Al-rahmi, et al., 2014) and others finding both (Alwagait, et al., 2015). The reasons for this include the difficulty of collecting GPA data, the fact that data collection on academic performance is based on self-reports, and the fact that students do not accurately remember their GPA and hesitate to accurately disclose it (Cho & Yanase, 2020). Thus, it has been shown that there is a relationship with study time and active attitude toward learning (Mitate, et al., 2008). By showing a relationship with willingness to learn, we can indirectly suggest an effect on academic performance.

By the way, the use of social networking services (SNS) has become a social problem that involves inappropriate cases of privacy in the Internet environment, and raising awareness of privacy is essential for living in today's society.

Received: 24 October 2024, Revised: 9 January 2025, Accepted: 27 January 2025, Published: 17 February 2025

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According to a 2024 survey (MIC, 2024) by the Ministry of Internal Affairs and Communications, “information” was the most common issue related to the Internet among young people. The survey revealed that many youths were affected by the spread of privacy-related images and other problems they encountered. In recent years, the number of social networking services (SNS) that allow users to post photos has been increasing, and it has become easier for users to view the photos of others.

The SNS under study is BeReal, which began to gain popularity in Japan around 2023. The application sends notifications to all users at random times and allows them to see their friends' posts if they post a photo within 2 minutes. The contents of the postings must be photos taken simultaneously with the inside and outside cameras, and photos stored on smartphones cannot be used. This system is popular among young people because it allows them to know the current status of their friends, and the two-minute time limit serves as a game element. In fact, it ranked first among “things that were popular” in the “Trend Ranking in the First Half of 2024,” a survey of Gen Z girls (Z Souken, 2024). The rule that users must post within two minutes makes them mindful of notifications, and it has been pointed out that some university students take pictures even during class (Toyo Keizai Online, 2024). In addition, it has been pointed out that because of the need to post photos, there are risks such as taking photos in prohibited areas such as locker rooms, showing unrelated people, or showing personal information (Toyo Keizai Online, 2024). Based on the above, BeReal has a very different structure from conventional SNS, and it is necessary to create new rules for smartphone use in class and to educate university students on privacy protection.

Therefore, the purpose of this study was to first clarify university students' ideas on the use of BeReal, as they are able to use smartphones relatively freely. Then, we would like to compare and examine the differences in willingness to learn and privacy consciousness among university students who have these ideas. The clarification of these differences may serve as a basis for the creation of rules and a new educational policy for each school regarding BeReal.

2. Methods

2.1 Subjects

The survey included 368 out of 414 first- through fourth-year students (male: 204, female: 158, non-response: 6, first-year students: 111, second-year students: 162, third-year students: 86, fourth-year students: 9) who belonged to a private university in Prefecture A for which data were not incomplete (Valid response rate 88.9%). The survey procedure was conducted online using Google Form. Consent to the survey was determined to have been obtained after explaining that the answers to the questions were voluntary and that the respondents were not forced to answer the questions they did not want to answer or could not answer at the beginning of the survey content.

2.2 Survey Contents

2.2.1 Items on thoughts about the use of BeReal

The following items were surveyed regarding their thoughts on the use of BeReal: whether or not they use BeReal, their awareness of using the application, their response when they receive a notification during class, their decision to post during class, and their thoughts on people who post during class (non-users).

2.2.2 Learning Motivation

The Learning Motivation Scale (Kasori, 2009) was used to measure the students' learning motivation. This scale consists of 10 items including “I feel restless in class,” which is a factor of concentration and persistence, 5 items including “I want to acquire more knowledge and skills at university,” which is a factor of self-improvement, 5 items including “I have my own opinions about newly learned matters,” which is a factor of proactivity toward the class, and 5 items including “I am serious about the class. The seriousness factor consists of 24 items in total, including 4 items such as “I take notes well in class. The responses were distributed on a seven-point scale.

2.2.3 Privacy Consciousness

The Privacy Consciousness Scale (Tabata & Sato, 2014) was used to measure privacy consciousness. This scale consists of seven items, including “I do not want others to ask me private questions,” which evaluates one's own privacy consciousness and maintenance behavior, four items, including “I usually act while worrying about the privacy of strangers,” which evaluates others' privacy consciousness, and four items, including “I do not listen to what my friends are talking on the phone,” which evaluates others' privacy maintenance behavior. The questionnaire consists of 15 items, including 4 items such as “I usually act with concern for the privacy of strangers,” and 4 items such as “I try not to listen to what my friends are talking about on the phone,” which evaluate privacy-preserving behaviors of others. The respondents were asked to answer on a five-point scale.

2.3 Ethical Consideration

The top page of the Google Form explains that the survey is voluntary, that there is no problem even if you do not give your consent, that you may stop answering during the questioning process, and that the answers are anonymous and statistically processed without identifying individuals. These procedures were conducted in accordance with the “Code of Ethics for Research Involving Human Subjects”.

2.4 Analysis Method

A t-test or one-way ANOVA was conducted, using the idea about the use of BeReal as the independent variable and the willingness to learn and awareness of privacy as the dependent variables. When significant differences were found in the one-way ANOVA, multiple comparisons were conducted using the Tukey method. All statistical significance levels were less than 5%. Statistical processing was performed using IBM SPSS Statistics 28.0.

3. Result

3.1 Thoughts on the use of BeReal

Table 1 shows the results of the survey on thoughts about the use of BeReal.

Table1. Results about thoughts on using Bereal

Whether to use BeReal	
User	259 (70.2%)
Non-user	109 (29.8%)
App usage awareness	
I definitely want to post, so I'm concerned about notifications	25 (9.7%)
I want to actively post	48 (18.5%)
I want to post when I notice a notification	100 (38.6%)
I am posting to see my friends' posts	69 (26.6%)
Don't post	17 (6.6%)
What to do when you receive a notification during class	
Post even during class	47 (18.1%)
Decide whether to post based on the class you are taking	64 (24.7%)
If students around you are taking photos, take one yourself	49 (18.9%)
Don't post during class	99 (38.2%)
Judgment materials posted during class(Multiple answers)	
Class content	30 (46.9%)
Teacher	46 (71.9%)
Number of people taking classes	15 (23.4%)
Seat position in classroom	36 (56.3%)
Classroom size	12 (18.8%)
Thoughts on people who post during class(Non-user)(Multiple answers)	
Don't think so	54 (49.5%)
Don't need to be in the picture	26 (23.9%)
Notification sounds distract me	42 (38.5%)
It looks fun and I'm jealous	4 (3.7%)

3.2 Use of BeReal and learning motivation

A t-test between the students who used BeReal and those who did not use BeReal showed that those who did not use BeReal were significantly more motivated to learn ($t(366)=3.45$, $p<.001$, $d=.43$). In particular, significant differences were found in concentration and seriousness ($t(366)=3.32$, $p<.001$, $d=.38$; $t(366)=2.37$, $p<.05$, $d=.27$). A one-way analysis of variance was conducted with awareness of the use of the application as the independent variable and learning motivation and the four subscales as dependent variables, and a significant difference was found in concentration ($F(5, 362)=3.56$, $p<.01$, $\eta =.05$). The results of multiple comparisons indicated that the “I pay attention

to notifications because I definitely want to contribute” and “I actively want to contribute” groups had significantly lower concentration than the “I do not use notifications” group. Furthermore, a one-way ANOVA was conducted using the independent variable of the response to receiving a notification during class, and a significant difference was confirmed between the learning motivation and the four subscales ($F(4, 363)=7.40, p<.001, \eta =.08$; $F(4, 363)=3.73, p<.01, \eta =.04$; $F(4, 363)=3.81, p<.01, \eta =.04$; $F(4, 363)=3.27, p<.05, \eta =.04$; $F(4, 363)=3.75, p<.01, \eta =.04$). Multiple comparisons revealed that the “post even during class” group was significantly lower in terms of learning motivation than the “take pictures if students around me are taking pictures,” “don't post during class,” and “don't use” groups. Furthermore, the group that “posts even during class” was significantly lower than the group that “does not use” for the four subscales.

3.3 BeReal use and privacy consciousness

The t-tests of privacy consciousness between the students who used BeReal and those who did not use BeReal showed no significant difference. A one-way ANOVA was conducted with awareness of application use as the independent variable and awareness of privacy and the three subscales as dependent variables, and no significant differences were found. Furthermore, a one-way analysis of variance was conducted using the response to receiving a notification during class as the independent variable, and the results showed significant differences in privacy consciousness and maintenance behavior ($F(4, 363)=3.20, p<.05, \eta =.03$). Multiple comparisons revealed that the “post even during class” group had lower privacy consciousness and maintenance behavior than the “do not post during class” group.

4. Discussion

The purpose of this study was to first clarify the thoughts on BeReal use among university students who have relatively free access to smartphones. Then, we compared and examined the differences in willingness to learn and awareness of privacy between those who used BeReal and those who did not use BeReal, and between those who thought about BeReal and those who did not use BeReal.

The results showed that about 70% of the respondents use BeReal, indicating that BeReal use is becoming more common among university students. In the SNS application usage rates for FY2023 according to a survey (MIC, 2024) by the Ministry of Internal Affairs and Communications, Instagram (72.9%), TikTok (70.0%) X (65.7%) were used by teens, and X (81.6%), Instagram (78.8%) and TikTok (52.1%) were used by 20-somethings, indicating that This suggests that it is the main social networking service. Although BeReal is becoming a staple, it is clear that most of the college students want to post on it due to the characteristics of the application. A survey conducted by NTT DOCOMO Mobile Society Research Institute (2022) reported that dedicated viewers account for 82.7% of the users of X and 86.2% of the users of Instagram. However, BeReal is considered to be an application that is highly dependent on posting because nothing can be enjoyed without posting. The high dependence can be seen from the fact that more than 60% of university students responded that they would post depending on the situation when they receive a notification during class. This situation of college students and the fact that the sound is heard around them as they take pictures suggests that using the app during class is considered a problem. In addition, since the largest number of university students cited “teacher” as a factor in their decision to post during class, it may be necessary to share this information among teachers to alert them to the problem. On the other hand, when we looked at the unused users, it was revealed that about half of them did not care if they posted during class, suggesting that posting during class may be a common practice among university students. The notification sound can be turned off by putting the camera in silent mode, but the shutter sound when taking pictures cannot be turned off, so at this point, there is no solution other than not posting.

Next, the use of BeReal and learning motivation showed that university students who use BeReal tend to have lower learning motivation than those who do not use BeReal. The group that actively wanted to contribute and the group that contributed even during class also tended to have lower learning motivation than the groups that did not use BeReal or did not contribute during class. As mentioned earlier, it is possible that the high dependence on smartphones causes students to be overly concerned about notifications even during class. Although it may be possible to prevent the decline in learning motivation by attending classes without using smartphones, in recent years, many students have been using smartphones to register their attendance and check class materials. Therefore, it is considered difficult to prohibit the use of smartphones, and we expect the creation of new rules or changes in application specifications during classes.

We examine BeReal use and privacy consciousness. In the survey of this study, 23.9% of the unused group answered that it was “fine as long as I am not in the picture” when posting in class, suggesting that privacy consciousness, especially for others, is necessary for BeReal. However, there was no significant difference in privacy consciousness

and behavior toward others between the used and unused groups; it is said that most privacy violations caused by articles posted on SNS occur after they are posted due to users' carelessness (Koyama, et al., 2013), and BeReal is more likely than other SNS to Since BeReal has a higher risk of privacy violation than other SNSs, it is necessary to raise privacy consciousness of others in the future. The results showed that the group that posted during class tended to be less aware of their own privacy and maintained their own privacy compared to the group that did not post during class. It has been reported that those who were not aware of their own privacy disclosed more information about others on X (Tabata & Sato, 2019).

Finally, we discuss the limitations of this study and future prospects. This study was conducted at a single university, and it is possible that the number of students and the size of the classrooms may have affected the responses. Therefore, it will be possible to grasp the overall trend of university students and to indicate the direction of educational policy by conducting surveys at other universities using the results of this study as basic data. In addition, although the willingness to learn was examined as a dependent variable, it is possible that university students with low willingness to learn are using BeReal. Therefore, it will be necessary to obtain accurate GPA data and investigate the impact of using the application on learning.

5. Conclusions

In this study, we clarified the thoughts of university students regarding the use of BeReal, and compared and examined the differences in their willingness to learn and their awareness of privacy based on whether they use or do not use BeReal and the differences in their thinking about BeReal. The main results of this study are as follows:

1. BeReal is becoming popular among college students, and many of them are willing to contribute to BeReal even in class.
2. College students who use BeReal tend to be less motivated to learn than those who do not use BeReal.
3. The group of students who post BeReal during class tended to be less conscious of and maintain their own privacy than the group of students who did not post BeReal during class.

Based on the above results, it is necessary to share the mechanism of BeReal and its prevalence among teachers, and to create rules for smartphone use in class. In addition, there is a need to update the existing information literacy education in order to prevent problems caused by the leakage of personal information and invasion of others' privacy.

Funding

This research received no external funding.

Conflicts of Interest

The authors declare no conflict of interest.

References

- Al-rahmi, W. M., et al. (2014). The Improvement of Students' Academic Performance by Using Social Media Through Collaborative Learning in Malaysian Higher Education, *Asian Social Science*, 10(8), 210-221. <http://dx.doi.org/10.5539/ass.v10n8p210>
- Alwagait, E. et al. (2015). Impact of Social Media Usage on Students Academic Performance in Saudi Arabia, *Computers in Human Behavior*, 51, 1092-1097. <https://doi.org/10.1016/j.chb.2014.09.028>
- Cho, H., Yanase, K. (2020). The Relationship Between the SNS Use and Academic Performance of University Students in Japan, *Socio-Informatics*, 8(3), 191-206. https://doi.org/10.14836/ssi.8.3_191
- Citizen Watch Co., Ltd. (2024). Life time awareness survey in 2024, <https://www.citizen.co.jp/research/20240610/02.html> (accessed 2024-9-30).
- Kasori, T. (2009). Relationship between Eating Behavior and Learning Motivation in University Students: Analysis from Living Style and Gender Differences, *The journal of Kyohei University*, 7, 161-179.
- Koyama, T., et al. (2013). Proposing of Predictive Notification Service by Privacy Invasion on Posting Image to SNS, *In DEIM Forum*.
- Lee, E. B. (2014). Facebook and Use and Texting Among African American and Hispanic Teenagers: An Implication for Academic Performance, *Journal of Black Studies*, 45(2), 83-101. <https://doi.org/10.1177/0021934713519819>
- MIC. (2024). Survey report on information communication media use time and information behavior in 2023 <Summary>, https://www.soumu.go.jp/main_content/000952987.pdf (accessed 2024-10-5).
- MIC. (2024). Survey on Internet usage among young people in Japan, https://www.soumu.go.jp/main_content/000955177.pdf (accessed 2024-10-3).

- Mitate, Y., et al. (2008). Some Factors Determining Students' Motivation to Study and Their Satisfaction in University Life, *Japan Society for Educational Technology*, 32(2), 189-196. <https://doi.org/10.15077/jjet.KJ00005059796>
- NHK Broadcasting Culture Research Institute. (2022). Survey of time spent using media, <https://www.nhk.or.jp/bunken/yoron-jikan/column/media-2021-09.html> (accessed 2024-10-6).
- NTT DOCOMO Mobile Social Research Institute. (2022). Mobile Communication, https://www.mobaken.jp/whitepaper/wp21/pdf/wp21_all.pdf (accessed 2024-10-2).
- Tabata, N., Sato H. (2014). Development of the Privacy Consciousness Scale (PCS), *The Japanese Journal of Personality*, 23(1), 49-52. <https://doi.org/10.2132/personality.23.49>
- Tabata, N., Sato H. (2019). Psychological Factors Affecting Disclosure of Others' Information on Twitter: Focusing on Friends and Acquaintances, *The Japanese Journal of Personality*, 27, 235-245. <https://doi.org/10.2132/personality.27.3.13>
- Toyo Keizai Online. (2024). The real fear of BeReal, an unpopular SNS among young people, <https://toyokeizai.net/articles/-/736768> (accessed 2024-9-30).
- Z SOUKEN. (2024). Trend ranking for the first half of 2024, <https://www.zet.tokyo/works/416/> (accessed 2024-10-7).