A Leap with Mobile Technology: the Impact of Social Media Sharing on Mobile-Assisted Language Learning

The present study aims to investigate the impact of social media sharing on Mobile-Assisted Language Learning (MALL) using activity theory to better understand the characteristics and mechanisms of social media sharing behaviors and their potential to facilitate English learning on mobile platforms. Utilizing a mixed-methods analysis approach, the study analyzed survey data collected from a sample of 350 university students in Shanghai, categorizing them into user and non-user groups based on their engagement with mobile social media's check-in function, and employed a descriptive survey and a four-level Likert scale to assess learning habits, opinions, and attitudes toward MALL. The findings offer new insights into the profound value of MALL. The findings suggested that as a widely adopted language learning method, MALL indicates a public display of learning through sharing progress on social media, where learners are greatly motivated by the visibility of their efforts. The correlation between personal characteristics and the effectiveness of "check-in" is also verified that female, longer-term, language major, younger learners are more likely to engage in "check-in" activities. These findings carry the important implications for both educators, and language learners, underscoring the crucial role of MALL in fostering active participation in language learning.

Keyword: Mobile Assisted Language Learning, social media sharing, activity theory, study check-in, Shanghai university student

1. Introduction

Mobile Assisted Language Learning (MALL) is the process of utilizing mobile devices and apps to assist in language learning (Zimmerman, 2002). Integrating mobile technology into language learning has marked a significant evolution in education, particularly with the rise of MALL. Nowadays, various learning applications are capable of providing dynamic, interactive, and personalized learning experiences for learners (Shadiev et al., 2017). However, this new method comes with a new set of challenges and considerations regarding the effectiveness and nature of language learning in non-traditional settings (Papi & Teixeira, 2018).

Some current studies have explored the theoretical impact of social communication features within MALL on the positive fluency development of language learners. Social learning theories suggest that the interaction and feedback facilitated by social media can enhance observational learning and imitation, which are crucial for language acquisition (Bandura, 1977). Self-regulation strategies, where learners set goals, monitor progress, and adjust strategies, are also emphasized as essential components of effective MALL (Zimmerman, 2002). Furthermore, the motivational benefits of social media interactions, such as peer support and a sense of competition, are highlighted as key drivers for language improvement (Deci et al., 1999).

However, the social communication features within MALL cause a growing concern on negative influence of language learning process (Papi & Teixeira, 2018). The focus on metrics such as the number of words learned or minutes studied may detract from the depth and quality of language acquisition (Papi & Teixeira, 2018). Additionally, the public nature of social media-driven learning, or "study check-ins," risks prioritizing appearance over substance, potentially leading to a skewed representation of learning outcomes (Goffman, 1959).

Considering the complexity of MALL to the effects of language learning, this paper aims to explore the social communication attributes of MALL and its influence on language learning, examining both the benefits and challenges that arise from the intersection of social media and mobile-assisted language learning. Also, the research attempts to bridge the gap between the theoretical underpinnings of MALL and

its practical applications, which particularly focuses on the role of social media in language learning. The study also intends to investigate whether the public display of learning through check-ins can lead to a competitive learning environment that fosters achievement orientation and language improvement.

2. Literature Review

The mobile application in language learning has revolutionized traditional approaches, which encourages more learners to engage in language acquisition beyond the classroom (Burston & Giannakou, 2021). MALL enhances the portability and connectivity of devices to facilitate interactive and personalized learning experiences (Shadiev et al., 2017). A significant trend within MALL is the promotion of users' interaction, commonly known as "study check-ins", which involves learners sharing their learning progress on social media platforms.

The concept of "check-ins" depends on social learning theories, which emphasize the role of observation, imitation, and interaction in acquiring new behaviors (Bandura, 1977). In the context of Activity Theory in MALL, check-ins serve as a form of self-regulation, where learners set goals, monitor progress, and adjust strategies accordingly in order to feel more confident in their English abilities and influence positively on others through "check-ins" (Zimmerman, 2002). At the same time, social media platforms enhance the interactive nature of MALL by providing entertaining and interactive content, which can be regarded as a supplementary tool to traditional teaching, also offering cultural insights and practical language usage in broader community (Dabbagh & Kitsantas, 2012). This public display of learning can boost motivation, as learners are willing to seek the support from their peers (Ryan & Deci, 2000).

The interactive effects of check-ins extend beyond motivation. Fezeena et al. (2016) found that social media interactions can provide learners with instant feedback and constructive criticism, which are crucial for language refinement. Additionally, the comparative aspect of check-ins can boost a sense of competition, which, according to Deci et al. (1999), can drive achievement orientation and language improvement.

However, the effectiveness of check-ins in MALL is not perfect. Some researchers (Papi & Teixeira, 2018) argued that the focus on quantifiable metrics, such as the number of words learned or minutes studied, may overshadow the quality of learning. While these apps perform well for their interactivity and utility in enhancing English communication skills, they lack features that facilitate immediate dialogue among learners and online language communities, which are critical for social interaction, according to Papi & Teixeira (2018). Furthermore, the public nature of check-ins could misguide the overall impression, where learners may prioritize appearance over genuine learning outcomes (Goffman, 1959).

In conclusion, MALL, with their interactive and social attributes, provides a dynamic approach to language learning. They leverage the affordances of mobile technology to provide learners with a flexible and engaging learning environment. While there is evidence to support the positive effects of check-ins on motivation, feedback, and vocabulary retention, further research is needed to understand their impact on deeper levels of language learning and the potential drawbacks associated with MALL.

Thus, the research questions are as follows:

- 1. How can social media platforms influence language learning, particularly in terms of motivation and engagement?
- 2. To what extent does the public display of learning create a competitive learning environment?
- 3. How do personal characteristics affect attitudes toward social media interaction on language learning in MALL?

3. Methodology

3.1 Participants

350 university students from Shanghai were invited, including Shanghai Jiao Tong University, Fudan University, Shanghai University of Finance and Economics, etc., to complete the online questionnaire survey. To be specific, the participants involved 64 second-year and 64 third-year English major students (totaling

128 students), as well as 111 second-year and 111 third-year students from non-English majors (totaling 222 students). The participants were categorized into two groups based on their use of mobile social media's check-in function, defined as having used it for social media sharing continuously for 3 days. Those who met this criterion were placed in the "user group" (n=197), while those who did not were placed in the "non-user group" (n=153). Students answered questions anonymously, which ensured the authenticity of the data. Each participant was given an informed consent form, which had been approved by the university's institutional research review board. The form indicated that the study concerns attitudes toward social media interaction on language learning in MALL, that the students were not required to participate, and, if they did participate, they could withdraw from the study at any time without penalty. All students signed the form and participated fully.

3.2 Methodology

Section 1 of the questionnaire was adapted from Fazeena et al. (2016). It aimed to investigate the characteristics and mechanisms of the "check-in" mode, which covered four basic research variables, including the gender, length of time studying English, major, and age. The reliability of this instrument was established by Wright, et al. internal consistency (Cronbach's alpha) that is .728, showing its high reliability. Furthermore, its content validity was also evaluated by inviting an expert in foreign language education to give suggestions. Some modifications were made to ensure it conformed to Chinese students' real learning and living conditions. Moreover, section 2 used a four-point Likert scale ranging from "Strongly Agree" (4) to "Strongly Disagree" (1), to gauge participant responses. Exploratory Factor Analysis (EFA) confirmed that the loading for each item were appropriately high (> 0.5), validating the findings. Cronbach's alpha, which is .751, further verified the internal consistency and reliability of the survey within the given context.

The questionnaire for the study was published through Wen Juan Xing. Once the questionnaire was well designed, it was uploaded to this online platform and open for completion. Students were expected to follow the instructions in the questionnaire to ensure that their responses reflected their actual situation to the utmost extent. After the data collection was completed, the filled data was converted into an Excel file that was downloaded for subsequent data analysis. The IBM SPSS Software was employed for more advanced statistical analysis, including the mean score analysis of each attitude statement and the Pearson correlation analysis, to identify opinions, correlations and other significant patterns within the data set.

4. Results

4.1 Descriptive Results

According to Table 1, of all participants, 56.3% have participated in English learning "check-ins", which confirms the popularity of the social media function among university students. More than 60% of females have participated in "study check-in", much higher than the percentage of males (45%). Figures show that 67.5% of the user group started learning English in elementary school, a much higher percentage than that of non-users, which indicates that learners who choose to "study check-in" usually have a longer experience of learning English.

Table 1
Descriptive Statistics of Participants in the User and Non-User Groups

Group	Mean Age	SD	Min	Max	Female	Male	Total
User Group	20.51	1.43	18	24	54	143	197
Non-User Group	20.58	1.14	18	24	102	51	153

Note: SD = Standard Deviation; Min = Minimum; Max = Maximum.

The survey results depicted in Table 2 reveal striking contrasts between users and non-users regarding their attitudes towards the "check-in" practice for English learning. Users demonstrated a strong inclination towards sharing their daily life and learning achievements on social media, as indicated by the mean scores, 3.5797, suggesting agreement or strong agreement with the statements. With all relevant mean scores closed

to 3.00, the users also found "check-in" to be an engaging and effective method for maintaining interest and persistence in English learning, with over 70% expressing satisfaction with the learning themes, task settings, and difficulty levels associated with "check-in." In contrast, non-users had a less favorable opinion of sharing on social media and were more critical of the "check-in" method. Their mean scores are generally lower, closer to 1 and 2, which indicates disagreement or strong disagreement with the statements. Over 60% of non-users did not find "check-in" to be an engaging or effective tool for language learning, as suggested by their lower mean scores on statements related to the benefits of "check-in" for English learning. Non-users were also more skeptical about the necessity of social media sharing for English learning, as seen in their lower mean scores, which is 1.8431, for the statement "Sharing on social media is necessary for English learning." They were less likely to believe that "check-in" could have a positive impact on others or gain attention on social media, which is reflected in their lower mean scores, 1.5921. The most notable divergence lies in the overall satisfaction with the "check-in" method, where users were predominantly content, showing mean score 2.9947, while non-users were largely dissatisfied, demonstrating the mean score 1.4869. this finding indicates a clear divide in the perceived value and effectiveness of this practice between the two groups.

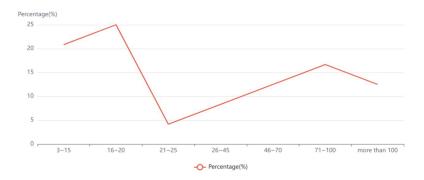
Table 2
Descriptive Statistics of Users' and Non-users' Attitudes towards "Check-in"

Attitude Statement		User Group			Non-user Group		
		Max	Mean	Min	Max	Mean	
I enjoy sharing my daily life on social media.		4.00	3.5797	1.00	4.00	1.8693	
"Check-in" makes it easier for me to persist in English learning.	1.00	4.00	3.0711	1.00	4.00	1.8954	
"Check-in" helps improve my comprehensive English skills.	1.00	4.00	2.9590	1.00	4.00	2.1307	
"Check-in" takes up too much of my time every day.	1.00	4.00	1.9590	1.00	4.00	2.2810	
Sharing on social media is necessary for English learning.	1.00	4.00	2.8807	1.00	4.00	1.8431	
"Check-in" can gain the attention of friends on social media.	1.00	4.00	2.9072	1.00	4.00	2.5425	
"Check-in" can have a positive impact on others.	1.00	4.00	2.8528	1.00	4.00	1.5921	
Abandoning "check-in" can leave a negative impression on others.	1.00	4.00	3.1164	1.00	4.00	2.1085	
I am satisfied with learning English through the "check-in" method.	1.00	4.00	3.0159	1.00	4.00	1.9150	
Social media is a satisfactory tool for English learning.	1.00	4.00	2.9947	1.00	4.00	1.4869	

The maximum value of the time means the longest period a learner has persisted in learning English with study check-in, which is non-normally distributed, according to Table 3. The average maximum value of the time is 66 days. The data shows that users are most likely to give up when they persist for 20 days, and the number gradually increases in the range of 20 to 100 days. Six of the participants persisted in daily check-in English learning for more than a year.

Table 3

Descriptive Statics about the Maximum Value of the Time

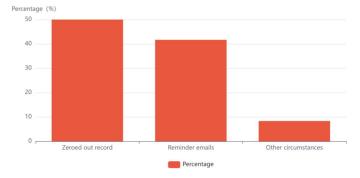


The social media interaction behaviour objectively serves the purpose of urging learners to learn English. Learners must complete all the learning tasks before they are allowed to share the study check-in on the social media. If learners leave the learning platform in the midway or give up learning, they will receive negative feedback from the system. For example, according to Table 4, 50% of the users mentioned that their cumulative total number of days of "check-in" was zeroed out, which was published on social media and triggered negative emotions in learners. Also, they would receive reminder emails from the system (41.67%), and some of them claimed that they would feel ashamed for not finishing their language learning after the system reminded them to do so.

In summary, the social media interaction on language learning in MALL provides learners with both positive and negative feedback mechanisms, and learners' performance in terms of persistence or abandonment of learning will be published on social platforms.

Table 4

Descriptive Statics about the Negative Feedback Mechanisms



4.2 Results of Pearson correlation analysis

To further explore the factors affecting attitude, this study used the Pearson correlation analysis method to test the research variables. The independent variables were gender, length of time studying English, major, and age, and the dependent variables corresponded to the 16 attitude questions. As Table 5 shows, there are significant correlations (p<0.05, p<0.01) between several independent variables and attitude statements related to the "check-in" activity. Specifically, gender is significantly correlated with the impact of attention from "check-in" (p=0.029). Among the variables related to the length of time spent learning English, there are significant correlations with the satisfaction with the "check-in" (p=0.003) and daily "check-in" hours (p=0.005). The question of whether or not one is an English major also correlates importantly with satisfaction with "check-in" for English language learning (p=0.045). As for age, several significant correlations are observed, including with the enjoyment from social sharing behaviors (p=0.021), learning interest triggered by "check-in" (p=0.032), persistence brought by "check-in" (p=0.042), and potential consequences of negative impressions on others (p=0.003).

Table 5

Correlation of Variables Collected Between Gender, Length of Time Learning English, Major, Age and Attitude Statement

Independent variable	Attitude statement	p
Gender	"Check-in" can gain the attention of friends on social.	0.029*
Length of time learning	I am satisfied with the learning tasks set by "check-in."	0.003**
English	"Check-in" takes up too much of my time every day.	0.005**
Major	I am satisfied with learning English through the "check-in"	0.045*
Age	I enjoy sharing my learning outcomes on social media.	0.021*
	"Check-in" makes me more interested in English learning	0.032*
	"Check-in" makes it easier for me to persist in English	0.042*
	Abandoning "check-in" can leave a negative impression on others.	0.003**

Note: *p <0.05, **p <0.01, ***p<0.001

5.Discussion

The findings revealed four main insights. Firstly, the effectiveness of "check-in" is subjective and dependent on individual attitudes towards social media sharing. Secondly, the public display of learning through sharing progress on social media can create a competitive learning environment where learners are motivated by the visibility of their learning progress to others. Thirdly, female students are more likely to engage in "study check-in" activities compared to their male counterparts. Longer-term learners find "check-in" in MALL more beneficial. Academic focus influences the perceived value of satisfaction toward "check-in." Younger learners are more motivated by social media interaction.

The results underscore the difference between users and non-users which shows that the effectiveness of "check-in" is subjective and dependent on individual attitudes towards social media sharing. This finding supports the previous study that the great difference between users' and non-users' attitudes toward MALL is due to the concern that non-users worry about the potential distractions that social media sharing can introduce into their learning process (Bachore, 2015). The more striking reason is that users find "check-in" to be an engaging method that helps maintain interest and persistence in English learning, but non-users may find it tedious and meaningless. Surprisingly, non-users often cite a lack of perceived value in the check-in feature. They argue that learning should be an internal process focused on personal growth and understanding, rather than a public performance or competition. For these individuals, the act of sharing one's learning achievements on social media does not align with their learning philosophies or goals. They may feel that the emphasis on social recognition detracts from the intrinsic rewards of learning and the genuine progress made in acquiring new language skills.

The public display of learning can greatly motivate the learning passion because sharing progress on social media can create a competitive learning environment. Users are more likely to express satisfaction with the learning themes and task settings associated with "check-in," suggesting learners are actually motivated by the visibility of their learning progress to others. This contemplates the reason analysis in previous research that publicly sharing learning goals can create a sense of commitment (Dabbagh & Kitsantas, 2012). Learners feel more accountable to their audience, which can motivate them to follow through on their learning objectives and maintain their learning passion to meet those commitments.

The study also finds reciprocal relationships between personal characteristics and attitude toward MALL. Specifically, female, longer-term, language major, younger learners are more likely to engage in "study check-in" activities. This finding echo the view of previous research that personal characteristics are reciprocally related to attitudes toward MALL (Boroughani, Behshad, & Xodabande, I., 2023). Interestingly, age has the most crucial impact on the attitude toward MALL, which is correlated on the enjoyment from social sharing behaviors, learning interest, persistence, and potential negative impressions. Furthermore, this supports previous research indicating that higher motivation levels are associated with better Self-Efficacy Beliefs (SEB) in managing and regulating online learning (Barak et al., 2016). Building on these two previous researches, the study can further elaborate that personal characteristics such as gender, learning experience, major, and age not only influence learners' attitudes and participation in MALL but may also impact their Self-Efficacy Beliefs (SEB). For instance, female students might be more inclined to use social

media for learning sharing due to sociocultural factors, and this participation, in turn, enhances their SEB. Long-term learners may feel a higher sense of SEB in MALL due to their accumulated learning strategies and experiences. Younger learners, being more accustomed to social media use, might derive more motivation from social media interaction, which could also boost their SEB.

6.Conclusion

The study provides a comprehensive analysis of the impact of social media sharing on language learning within the context of Mobile-Assisted Language Learning (MALL). It indicate the large portion of students engaging in English learning "check-ins" through social media, and the popularity and integration of technology in language acquisition practices, which brings the subjective effectiveness and attitudes towards social media sharing. The study also reveals reciprocal relationships between personal characteristics and attitudes toward MALL, with female, longer-term, language major, and younger learners more likely to participate in "check-in" activities.

While the study offers valuable insights, some limitations of the present research design should be addressed. The sample size is drawn from a specific population of university students in Shanghai, so the validity of the findings in different regions settings is unknown. Additionally, the study does not measure the actual vocabulary improvements or language proficiency gains of the participants, focusing instead on perceptions and attitudes.

Future research could benefit from expanding the sample to include a more diverse and international population of learners to enhance the generalizability and validity of the findings. Moreover, longitudinal studies could be conducted to assess the long-term impact of MALL practices on language acquisition, which can also provide a more objective evaluation of the effectiveness of social media interaction function in MALL.

This research is significant for both policymakers, and educational practitioners, as well as language learners. The study highlights the potential of MALL in fostering active participation in language learning and the importance of considering individual attitudes towards social media sharing when designing language learning interventions. Moreover, the study emphasizes the need for educators to be aware of the diverse preferences of their students when implementing MALL strategies. By understanding the factors that influence engagement with MALL, educators can design more effective and inclusive language learning experiences that leverage the power of technology and social interaction.

Reference

- Bachore M M.Language learning through mobile technologies: An opportunity for language learners and teachers[J]. *Journal of Education and Practice*, 6(31), 50-53. https://doi.org/10.1080/09588221.2018.1541359
- Bandura, A. (1977). Social learning theory. Prentice Hall. https://doi.org/10.1037/10636-000
- Boroughani, T., Behshad, N., & Xodabande, I. (2023). Mobile-assisted academic vocabulary learning with digital flashcards: Exploring the impacts on university students' self-regulatory capacity. *Frontiers in Psychology*, 14, 1112429. https://doi.org/10.3389/fpsyg.2023.1112429
- Burston, J., & Giannakou, K. (2021). MALL language learning outcomes: A comprehensive meta-analysis 1994–2019. *ReCALL*, 34(2), 147–168. https://doi.org/10.1017/S0958344021000240
- Dabbagh, N., & Kitsantas, A. (2012). Personal learning environments, social media, and self-regulated learning: A natural formula for connecting formal and informal learning. *The Internet and Higher Education*, 15(1), 3–8. https://doi.org/10.1016/j.iheduc.2011.06.002
- Deci, E. L., Vallerand, R. J., Pelletier, L. G., & Ryan, R. M. (1999). Motivation and education: The self-determination perspective. *Educational Psychology Review*, 11(4), 321–348. https://doi.org/10.1023/A:1021405031436
- Ebbinghaus, H., & nDos, S. (1885/2010). Memory: A contribution to experimental psychology. New York.
- Fazeena, J. F., Ekanayaka, Y., & Hewagamage, K. P. (2016). Activity theory-based analysis of mobile

- language learning among school leavers of Sri Lanka. *In Proceedings of the Fifteenth International Conference on Advances in ICT for Emerging Regions (IEEE, 2016)*, 26-31. https://doi.org/10.1109/ICTER.2016.7859067
- Goffman, E. (1959). The presentation of self in everyday life. New York.
- Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business Horizons*, 53(1), 59–68. https://doi.org/10.1016/j.bushor.2009.01.003
- Kohnke, L. (2020). Exploring Learner Perception, Experience and Motivation of Using a Mobile App in L2 Vocabulary Acquisition. *International Journal of Computer-Assisted Language Learning and Teaching*, 10(1), 15-24. https://doi.org/10.4018/IJCALLT.2020010102
- Kuo, Y. C., Chu, H. C., & Huang, C. H. (2015). A learning style-based grouping collaborative learning approach to improve EFL students' performance in English courses. *Educational Technology & Society*, 18(2), 284–298.
- Lin, J. J., & Lin, H. (2019). Mobile-assisted ESL/EFL vocabulary learning: A systematic review and meta-analysis. *Computer Assisted Language Learning*, 32(5), 878–919. https://doi.org/10.1080/09588221.2018.1541359
- Papi, A., & Teixeira, R. (2018). Gamification and serious games for higher education: A critical analysis. In M. F. Santos, M. M. Kebritchi, & M. B. H. Dias (Eds.), *Learning and teaching in the digital age* (pp. 123–136). Hershey, PA: IGI Global.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68–78. https://doi.org/10.1037/0003-066X.55.1.68
- Shadiev, R., Hwang, W. Y., & Huang, Y. M. (2017). Review of research on mobile language learning in authentic environments. *Computer Assisted Language Learning*, 30(3-4), 284–303. https://doi.org/10.1080/09588221.2017.1308383
- Zimmerman, B. J. (2002). Becoming a self-regulated learner: An overview. *Theory Into Practice*, 41(2), 64–70. https://doi.org/10.1207/s15430421tip4102_2

Appendix

Surveys used in the present study

Section 1

Sex:

oMale

○Female

Grade level:

- oFirst year of university
- Second year of university
- Third year of university
- oFourth year of college

Are you an English major?

 $\circ Yes$

 \circ No

When did you start learning English?

- OBefore elementary school
- Elementary school
- oMiddle school

Have you ever used the punch card function of a mobile language learning program for 3 consecutive days for social media sharing?

 \circ Yes

ONo (Skip to Question 12)

What is the longest number of days you have stuck to the punch card?
o3 to 15 days
○16 to 20 days
○21 to 25 days
026 to 45 days
o46 to 70 days
o71 to 100 days
More than 100 days
What is your main reason for using the punch card feature?
To increase motivation to study
• To get rewards or points
o Social interaction
Other, please specify:
What time do you usually check in?
○Morning
○Noon
○Evening
○ Varies
Which language learning program do you use?
ONew language learning software
○Vocabulary punch card software
OListening and speaking training software
Other, please specify:
What is the learning goal you want to achieve through the punch card function?
o Improve vocabulary
o Improve speaking skills
©Enhancement of grammar knowledge
Other, please specify:
What would the negative feedback you receive look like if you didn't stick to your clock halfway through
the program?
O Zeroing out the total number of days you have clocked in.
• Receive a reminder email from the system
Other, please specify:
*After completing this question, please skip to question 13.
What may be the reason why you have not used the punch card function for 3 consecutive days?
 Lack of motivation
o Forgot to punch in
o Don't like social media sharing
Other, please specify:
Do you know how many of your friends or classmates use the punch card feature?
○Very many
○Many
○Some
∘Few
○No one
Section 2
I like to share my daily life on social media.
I like to share my learning on social media.
"Check-in" makes me more interested in learning English.

"Learning Check-In makes it easier for me to keep learning English."

"Check-In helps me to improve my general English skills.

"Check-In takes up too much of my time every day.

I am satisfied with the topics provided by Check-In.

I am satisfied with the tasks set in Check-In.

I am satisfied with the level of difficulty of Study Check-In.

Sharing on social media is necessary for learning English.

Completion of the Check-In does not mean complete mastery.

"Learning Check-Ins can attract the attention of friends on social media.

"Check-ins can have a positive impact on others.

Giving up the Learning Check-In can leave a negative impression on others.

I am satisfied with learning English through the Study Check-In method.

Social media is a satisfactory tool for learning English.