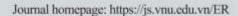


VNU Journal of Science: Education Research





Original Article

Effectiveness of *Notion* Application to the Development of Learner Autonomy in TOEIC Learning

Nguyen Khanh Huynh*

VNU-HCM University of Social Sciences and Humanities, 10-12 Dinh Tien Hoang, Ben Nghe, Ho Chi Minh City, Vietnam

Received 11th October 2024 Revised 05th November 2024; Accepted 12th November 2024

Abstract: Learner autonomy has received increasing attention in Vietnamese context, especially with the arising of ICT in English teaching and learning. This quantitative study aims to explore the effectiveness of Notion application to the development of learner autonomy perceived by learners. The participants include 50 university students from two TOEIC classes in HCMC, who were encouraged to use Notion app during a 2-month course. A close-ended questionnaire was adapted to collect data. The findings revealed that TOEIC learners perceived Notion app as effective in the fostering of their learning autonomy, regarding the high extent to which it helped them take charge of learning, have positive attitudes towards learning, learn cooperatively with peers, develop study skills, and build good relationships with teacher.

Keywords: Application, English, learner autonomy, technology, TOEIC.

1. Introduction

Scholars have discussed the concept of autonomy for quite a long time [1-5]; however, defining autonomy in a precise manner proves challenging due to its contextual variation. The significance of learner autonomy lies in the fact that it promotes independent study, individual accountability for one's own learning, and enhanced learning efficacy [6]. Autonomous learners are additionally cognizant of what, when, and how to learn, and as such, are more

The concept of learner autonomy has been extensively explored in Vietnam, as evidenced

likely than those with a low degree of autonomy to study languages more efficiently [7]. Put simply, the capacity for self-directed learning is considered a vital and indispensable attribute of a successful language learner. Nevertheless, the attainment of autonomy by learners is not possible without the assistance of teachers and external factors, which serve to facilitate, enhance, and stimulate the process [8]. In order for students to attain learner autonomy, the learning process should extend beyond the confines of the classroom, where instructors maintain authority, and involve active engagement in the outside world [9].

^{*}Corresponding author.

E-mail address: nguyenkhanhhuynh69@gmail.com

https://doi.org/10.25073/2588-1159/vnuer.4874

by the numerous studies that have addressed it [7, 10-13]. These studies also investigated the potential of technology for enhancing learner autonomy [11-13]. Online applications are a prevalent example of technology being utilized in this regard. User-friendly interfaces, diverse self-designed learning modes, accessibility through technological devices, and gamification functionalities have contributed to widespread adoption and admiration [12, 14-16]. Numerous studies have examined the efficacy of various approaches to fostering learner autonomy in the English language. However, Notion remains an understudied application, particularly in the Vietnamese context despite its growing popularity in language learning. Indeed, as many as 30 million users adopted it in 2023 to organize their lives digitally and, in particular, to study a new language [17]. Notion is a dynamic application designed to facilitate note-taking, manage workspaces, and organize databases. Exclusively in language learning, it can function as a storage of notes, vocabulary and sources of materials, a writing repository, a task tracker, goal and plan setting, and the like. Users are able to customize their pages on

Notion in styles that best serve their learning purposes. It is surveyed that users employ Notion to arrange and manage tasks (43%), record and learn vocabulary (35%), record notes and materials (22%) [17]. Even though only "record and learn vocabulary" is directly related to language learning, the others imply potentials for education use in the way that task management and note-taking are common manners to conduct learning. Figure 1 below illustrates one possible idea to apply Notion into learning a language.

Fifty college students were enrolled in this research through two TOEIC courses. All of them are non-English majors from different HCMC universities. The majority of them are juniors and seniors who are overburdened with projects and assignments, in addition to the TOEIC certification that is required for graduation. Given their youth, which is accompanied by curiosity, creativity, and technological proficiency, they might feel at ease experimenting with Notion. Therefore, the purpose of this study is to examine how TOEIC learners perceive Notion's effectiveness in their development of learner autonomy.

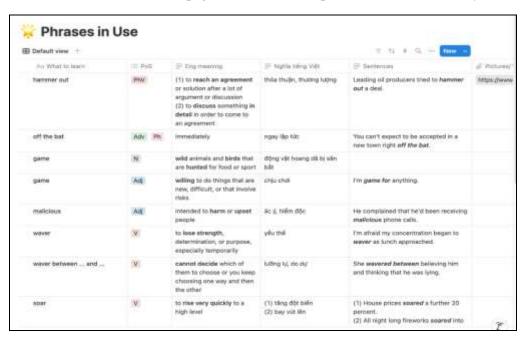


Figure 1. Using Notion to note and learn English vocabulary.

2. Literature Review

regard Autonomy, with to learning capability, is defined as "the freedom and ability to manage one's own affairs, which entails the right to make decisions as well" Scharle & Szabó [3, pp. 4]. The concept aligns with Holec's [1] view that students ought to assume independent responsibility for their own learning. Benson [5] stated that Holec's [1] description of autonomy, taking into account the pre-planning of what and how to learn, involves "monitoring learning progress and selfassessment which factually focused on the mechanics of day-to-day learning management" Benson [5, pp. 23]. In addition, it was argued that willingness is one important attribute of learner autonomy, as "this attitude enables them to acquire strategies to direct and manage their own learning" (Le [10], pp. 35). Autonomous learners possess an intrinsic motivation to take responsibility for their own learning and develop skills in self-management. As a result, they demonstrate enhanced learning efficacy and efficiency, thereby cultivating a sense of autonomy [17]. The willingness to learn also enhances the language learning processes and learner's strategies, enables behavioral engagement as well emotional as participation [18]. In this study, learner autonomy is viewed as learners' willingness and engagement in using Notion for their self-studying of TOEIC lessons outside the classroom.

Learners are deemed autonomous when they possess a clear comprehension of their demands and learning goals, optimize opportunities for English practice beyond the classroom setting, maintain constant independence from the instructor, and do not attribute their learning solely to the teachers [1, 2, 4, 5]. Learners are classified as autonomous based on five criteria, namely Taking charge of learning, Having positive attitudes, Learning cooperatively, Developing study skills, Building positive relationships with teachers [8]. Each of them suggests different sub-characteristics which have been proven to reflect autonomy of learners via the questionnaire in [8]. In other words, the study was successful proving that these are characteristics autonomous that learners should have.

Although the development of learner autonomy should be centered on the individuals learning, it is impossible to achieve without the assistance of extrinsic factors such as teachers. resources, and equipment [9]. In relation to resources and facilities, several research studies have reached the conclusion that technology can effectively enhance the autonomy of language learners [11, 12, 19]. A study was conducted by Lei et al., [19] to examine the benefits from the use of smartphones in an EFL classroom. Eighty Japanese university students were allowed to use smartphones for academic purposes in class, while sixty students were strictly prohibited from doing so. The participants were evaluated via their time of using video recordings, a pronunciation practice application, and an online testing application on their smartphones. The results of the online questionnaire revealed that members of the experimental group tended to devote more time to studying during their leisure hours, demonstrated autonomy by assuming responsibility for their own learning, and considered strategies to enhance their English proficiency and study habits. To facilitate vocabulary learning, Nguyen and Nguyen [12] enrolled sixty sophomores in a ten-week experiment during which they were instructed without Quizlet for the first five weeks and with it for the remaining half. Before and after the experiment, two survey questionnaires were distributed to the participants in order to gather their perspectives on utilizing Quizlet for vocabulary learning. The results demonstrated that the participants were enthusiastic and interested in the Quizlet application, thereby establishing the application's efficacy in promoting independent learning. Tran and Duong [11] selected 425 non-English majors to participate in their study examining the attitudes of non-English majors toward autonomous technology-based language learning (ATLL) at a Vietnamese university. Through the use of interviews and questionnaires, it was determined that the participants held favorable views of ATLL. It was discovered that non-English majors carried positive attitudes toward the use of technology in ATLL, were acutely aware of the critical roles of technology in ATLL (cognitive attitudes), and were uncertain of activities involving the use of technology for ATLL (behavioral attitudes). In

essence, technology has the potential to enable learners to develop autonomy.

Notion is a customizable application that allows users to manage a variety of tasks in a single space. Indeed, as many as 30 million users, adopted Notion in 2023 to organize their lives digitally and, in particular, to study a new language [20]. It has the capacity to function as a personal studying space, a writing repository, a database storage, and an assignment tracking system, among many other things.

As said, the relationship between technology and learner autonomy has been extensively studied, but little attention has been paid to the implementation of the Notion application in English learning. Given that Notion's flexible features potentially serve different needs and styles in English learning, and the participants of this study are undergraduates with high level of acceptance toward technological learning applications [11], it is desirable to investigate the effectiveness of the app in TOEIC learning perceived by the target participants.

The present study takes Halabi's [8] research as the model, which indicates that autonomous learners should hold five characteristics, namely Taking charge of learning, Having positive attitudes, Learning cooperatively, Developing study skills, Building positive relationships with teachers, and proves that the development of those helps promote learner autonomy. Therefore, the characteristics were remained as five themes to build the questionnaire in this study with a few modifications.

3. Methodology

3.1. Research Setting and Participants

This study employed quantitative research design, and was conducted at 2 TOEIC courses based in HCMC. The courses are supervised and taught by the researcher, which aim at strengthening grammar knowledge and expanding vocabulary range, as a background for the proficiency in 4 skills to successfully complete a standard TOEIC test. The coursebooks utilized in these classes are Destination B1 and Very Easy TOEIC.

There are 25 students in each course, which means totally 50 students in both courses, and this is also the sample size of the study. The

participants are non-English majors from numerous universities throughout HCMC who are required to take the TOEIC certificate for graduation: furthermore. their proficiency levels are similar, which was verified by the researcher at the time of enrolment. In terms of English learning experience, all individuals have accumulated over ten years of knowledge, with twenty percents being English learners for sixteen years. At the time of research, the two TOEIC courses were initiated concurrently, encouraging the implementation of Notion app and the observation of the complete process of LA development. Moreover, the participants' shared setting under the researcher's supervision facilitates the monitoring of their actual using of **TOEIC** Notion app for preparation. Consequently, all students in these classes were selected for this study.

3.2. Research Instrument

The instrument utilized in this quantitative research is a closed-ended questionnaire. The first section necessitates participants to provide personal information, while the following one was derived from Halabi's [8] work. The characteristics that have been identified as being present among autonomous learners in Halabi's study were reformulated into 22 question items within 5 presented themes. While in Halabi's [8], the questionnaire items asked whether participants possessed the given characteristics, the items in this study were reworded to state themerelated benefits of using Notion in developing learner autonomy. These items are designed to elicit responses on a Likert-scale of agreement and reflect the experiences of participants who used Notion to study English outside of the classroom. The scale ranges from 1 (Strongly Disagree) to 4 (Strongly Agree). All five variables' Cronbach's Alpha values are in the vicinity of 0.9, indicating a high degree of reliability. Prior to its administration to participants via Google Form, the questionnaire underwent a pilot phase to ensure content validity and ensure complete comprehension in Vietnamese.

3.3. Data Collection and Analysis Procedures

At the beginning of the first section of the new TOEIC course, Notion app was introduced to the students, emphasizing how to use it for learning English and why they should use it for that purpose. In the course of two months, the participants were encouraged to utilize the Notion app in the way that they deemed most beneficial for their English learning. They should first define their specific purposes, such as take notes of vocabulary and grammar rules, track progress, set goals and plans, or save pieces of writing. Afterwards, they can start designing their own pages to fit the purposes, or making use of available templates shared by other users in the Notion community which they can find online with ease.

At the end of the course which was 2 months later, the link to the online Vietnamese questionnaire were distributed via the Zalo groups

of the classes. Approximately ten minutes were required to finish the form. Before the analysis, the validity of all responses were checked.

SPSS version 22.0 was used to analyze the data in terms of descriptive statistics (Mean: M and Standard Deviation: SD). The interval mean score was interpreted as follows: 1.00 - 1.75: Strongly disagree; 1.76 - 2.50: Disagree; 2.51 - 3.25: Agree; and 3.26 - 4.00: Strongly agree.

4. Results and Discussion

4.1. Results

Table 1 shows results of the effectiveness of Notion app to the development of learner autonomy perceived by TOEIC learners. The total mean score is 3.29 (SD = 0.67) out of four. All mean scores were higher establishing a positive rapport with their teachers.

Number	Theme	Mean	SD
1	Taking charge of learning	3.28	0.63
2	Having positive attitudes	3.28	0.65
3	Learning Cooperatively	3.32	0.75
4	Developing study skills	3.22	0.69
5	Building a positive relationship with teacher	3.37	0.67
Average		3.29	0.67

Table 1. Notion's effectiveness to learner autonomy development.

From Table 2 to Table 6, results from each theme will be presented in order.

Taking charge of learning.

As shown in Table 2, participants highly appreciated that Notion app facilitated them to "evaluate the extent to which [they] have achieved [their] goals" (Item 1: M=3.36, SD=0.77), "know how to address [their] learning problems" (Item 4: M=3.34, SD=0.82), and be "better at meeting deadlines" (Item 5: M=3.30,

SD=0.81). In addition, they verified that Notion app was effective to help them "identify [their] own learning problems" (Item 3: M=3.26, SD=0.80), "monitor [their] own learning progress" (Item 2: M=3.24, SD=0.79), and set "[their] own learning goals" (Item 6: M=3.22, SD=0.67.

Having positive attitudes.

It was demonstrated in Table 3 that participants strongly agreed that they "feel more

positive towards learning English" by using Notion app (Item 9, M=3.34, SD=0.77), "[they are] more willing to learn English" (Item 8, M=3.30, SD=0.81), and "[they] enjoy learning experiences with Notion app" (Item 7, M=3.28, SD=0.75). They also confirmed that Notion app "motivates [them] to learn without external rewards" (Item 10, M=3.20, SD=0.78).

Learning cooperatively.

As regards Table 4, TOEIC learners firmly believed that Notion app allowed them to "seek help and support from peers" (Item 11, M=3.36, SD=0.87) as well as "join classroom interaction and discussion" (Item 13, M=3.36, SD=0.87). Furthermore, they were able to "learn with and from others" (Item 12, M=3.26, SD=0.80).

Developing study skills

Table 5 shows strong confirmation from participants that "[they were] able to identify and develop learning strategies" when they use Notion app (Item 14, M=3.30, SD=0.81). Also, they agreed that they were able to "learn with a variety of materials and resources to enhance learning" (Item 15, M=3.24, SD=0.89), "plan where [they] want to learn" (Item 16, M=3.22, SD=0.79), "develops [their] ability to study English by [themselves]" (Item 17, M=3.18, SD=0.82), and "develop individual daily/weekly learning plans" (Item 18, M=3.18, SD=0.77).

Building a positive relationship with teacher.

As revealed in Table 6, participants fully approved that Notion app helped them to "[be] more respectful towards the formality of teacher-student relationship" (Item 20, M=3.48, SD=0.83), "develop a friendship with [their] teacher" (Item 22, M=3.36, SD=0.77), develop "[their] independence from [their] teacher" (Item 19, M=3.34, SD=0.77), and "perceive teacher's controlling behavior in a positive way" (Item 21, M=3.30, SD=0.76).

Table 2. Notion's effectiveness in helping learners to take charge of learning

Item	Content	Mean	SD
1	Notion app facilitates me to evaluate the extent to which I have achieved my goals.	3.36	0.77
2	Notion app helps me monitor my own learning progress.	3.24	0.79
3	Notion app helps me identify my own learning problems.	3.26	0.80
4	With the availability of Notion app, I know how to address my learning problems.	3.34	0.82
5	With the support of Notion app, I am better at meeting deadlines.	3.30	0.81
6	Notion app facilitates my setting of my own learning goals (what I want to achieve, e.g. vocabulary, reading and writing skills, communication skills.	3.22	0.67

Table 3. Notion's effectiveness in developing learners' positive attitudes

Item	Content	Mean	SD
7	I enjoy learning experiences with Notion app.	3.28	0.75
8	With the availability of Notion app, I am more willing to learn English.	3.30	0.81
9	With the availability of Notion app, I feel more positive towards learning English.	3.34	0.77
10	Notion app motivates me to learn without external rewards.	3.20	0.78

Table 4. Notion's effectiveness in developing learners' cooperative learning

Item	Content	Mean	SD
11	Notion app allows me to seek help and support from peers.	3.36	0.87
12	Notion app allows me to learn with, and from others.	3.26	0.80
13	Notion app allows me to join classroom interaction and discussion.	3.36	0.87

Item	Content	Mean	SD
14	With the availability of Notion app, I am able to identify and develop learning strategies (e.g. learn words by parts of speech, form sentences from new words, organize a table of important grammar rules).	3.30	0.81
15	With the availability of Notion app, I am able to learn with a variety of materials and resources to enhance learning (e.g. textbooks, films, newspapers, websites).	3.24	0.89
16	With the availability of Notion app, I am able to plan where I want to learn (e.g. in the classroom, outside the classroom, at home, in the library).	3.22	0.79
17	Notion app develops my ability to study English by myself.	3.18	0.82
18	With the availability of Notion app, I am able to develop individual daily/weekly learning plans.	3.18	0.77

Table 5. Notion's effectiveness in helping learners to develop study skills

Table 6. Notion's effectiveness in helping learners to build a positive relationship with teacher

Item	Content	Mean	SD
19	Notion app facilitates my independence from my teacher.	3.34	0.77
20	With the availability of Notion app, I am more respectful towards the formality of teacher-student relationship.	3.48	0.83
21	With the availability of Notion app, I perceive teacher's controlling behavior in a positive way.	3.30	0.76
22	Notion app allows me to develop a friendship with my teacher.	3.36	0.77

4.2. Discussion

The aim of this study is to investigate Notion app's effectiveness to the development of learner autonomy perceived by TOEIC learners. The results unraveled that Notion app is effective in developing their learner autonomy, in terms of taking charge of learning, having positive attitudes, learning cooperatively, developing study skills, and building a positive relationship with teacher.

Firstly, the participants highly appreciated Notion app's facilitation to monitor and evaluate their learning progress, identify and address their own learning problems, and set their own goals of learning English. Additionally, the application served as a tool to speed up their commitment to deadlines. This result could potentially be attributed to the fact that the encouragement provided by a technological tool motivates them to assume greater accountability in their English language learning. The finding is supported by the research of Leis et al., [19], which found that students who utilized technological devices were more inclined to demonstrate autonomy by

taking responsibility for their own education and even devising strategies to enhance their study routines.

Secondly, most of the participants showed more interest and willingness in learning English with the support of Notion app. They confirmed that the learning experiences in Notion was enjoyable, and that they were motivated to learn without rewards. This may be due to the fact that, in contrast to conventional learning tools such as notebooks, paper, and pens, Notion is an innovative and foreign technological tool. Interaction through the screen and keyboard is encouraged. Likewise, Nguyen and Nguyen [12] discovered that students exhibited greater enthusiasm and engagement when using the Quizlet application to learn, thereby promoting independent study.

Thirdly, TOEIC students reported that the Notion app enabled them to collaborate more effectively by connecting with and receiving help from peers. This can be explained that the Notion app supports the note-sharing feature, allowing users to view and learn from the notes of others, thereby contributing to the classroom

discussion with new ideas. This discovery is corroborated by Halabi [8], who posits that the capacity to acquire knowledge from others promotes independent study.

Next, by creating their own study schedules and deciding where to learn, the participants gained the ability to study by themselves. In addition to the access to various learning materials via the Notion app, users were also capable of identifying and developing effective learning strategies. It can be deduced that when students are actively engaged and free in determining what, where, and how to study, their study skills correspondingly advance. This result is diametrically opposed to the findings of Tran and Duong [11], which suggest that students are extremely uncertain about how to utilize technology for independent study. The reason may be that the participants in this research were provided with detailed guidelines and were particular introduced to a application. Additionally, they might have access to instructional videos on platforms such as Facebook, YouTube, or TikTok to learn how to use Notion app for their learning purposes. The Notion app enabled TOEIC students to study independently with less reliance on their teacher than before, while maintaining respect to the formality of the student-teacher relationship. As a result, they stopped thinking about teacher control negatively and in fact developed friendships with their teacher. One plausible explanation is that as learners progressed in their self-study using the application, they started to realize that they could learn without experiencing undue stress. It appears that the Notion app has transformed the role of the teacher from being a knowledge constructor to a facilitator and counselor, thereby fostering positive relationships between teacher and students. This finding is corroborated by Han [9], who argued that in order to promote learner autonomy, instructors should not merely and consistently serve as knowledge providers.

5. Conclusion and Recommendations

According to this study, TOEIC students regarded the Notion app as an effective tool in fostering their learning autonomy. They believed that the app could assist them in initiating the

learning process, acquiring English in a more collaborative and enjoyable manner, developing appropriate study skills, and fostering a stronger rapport with the teacher. The present data underscores the significance of a technological application in fostering learner autonomy, implying thereby pedagogical certain ramifications. First. teachers should introduce students with applications that have the potential to support their independent study. It is recommended that the teachers have experiences with the apps and be familiar with both their advantages and disadvantages. This will enable them to serve as a source of motivation for students and a mentor when they encounter difficulties while utilizing applications. Second, in addition to the Notion app, students may utilize a variety of other applications for educational purposes. The accessibility of technological devices and the continuous advancement of applications have facilitated exploration of intriguing ones and decision on the most practical or applicable ones. The apps enable them to personalize their learning, making it more relevant to their specific goals and demands.

One limitation of this study is that it employed solely a close-ended questionnaire to collect quantitative data. Another lies in the fact that the sample size of 50 participants is relatively small to ensure the validity of the results and yield generalizable conclusion. Further research using more data collection instruments such as interviews and observation forms or journals, and gathering a bigger sample size from different institutions is therefore suggested for the generalization and comparison of results.

References

- [1] H. Holec, Autonomy and Foreign Language Learning, Oxford: Pergamon Press, 1981.
- [2] L. Dickinson, Self-instruction in Language Learning, Cambridge University Press, 1987.
- [3] A. Scharle, A. Szabó, Learner Autonomy: A Guide to Developing Learner Responsibility, Cambridge, UK: Cambridge University Press, 2000.
- [4] P. Benson, Learner Autonomy in the Classroom, New York: Nichols Publishing, 2003.
- [5] P. Benson, Autonomy in Language Teaching and Learning, Language Teaching, Vol. 40, No. 1, 2007, pp. 21-40.

- [6] S. Borg, Y. Alshumaimeri, Language Learner Autonomy in a Tertiary Context: Teachers' Beliefs and Practices, Language Teaching Research, Vol. 23, No. 1, 2019, pp. 9-38, https://doi.org/10.1177/136216881772.
- [7] T. M. Duong, Learner Autonomy in English Language Learning: Vietnamese EFL Students' Perceptions and Practices, Indonesian Journal of Applied Linguistics, Vol. 11, No. 2, 2021, pp. 307-317, https://doi.org/10.17509/ijal.v11i2.29605.
- [8] N. Halabi, Exploring Learner Autonomy in a Saudi Arabian EFL Context [Doctoral Dissertation, University of York], 2018, https://core.ac.uk/download/pdf/226756089.pdf/, 2018 (accessed on: July 12th, 2020).
- [9] L. Han, Teacher's Role in Developing Learner Autonomy: A Literature Review, International Journal of English Language Teaching, Vol. 1, No. 2, 2014, pp. 21-17, https://doi.org/10.5430/ijelt.v1n2p21.
- [10] Q. X. Le, Fostering Learner Autonomy in Language Learning in Tertiary Education: An Intervention Study of University Students in Hochiminh City, Vietnam [Doctoral Dissertation, University of Nottingham], Nottingham Theses, 2013, https://eprints.nottingham.ac.uk/13405/ (accessed on: November 18th, 2023).
- [11] Q. T. Tran, H. Duong, Tertiary Non-English Majors' Attitudes Towards Autonomous Technology-based Language Learning, In Proceedings of the 17th AsiaCALL International Conference, Vol. 533, 2021, pp. 141-148, https://doi.org/10.2991/assehr.k.210226.0181.
- [12] H. T. Nguyen, D. T. Nguyen, Using Quizlet in Generating Learners' Autonomy in Learning English Vocabulary, TNU Journal of Science and Technology, Vol. 226, No. 3, 2021, pp. 34-42, https://doi.org/10.34238/tnu-jst.4100.

- [13] T. M. Duong, T. V. Nguyen, The Students' Readiness for Learner Autonomy in English Language Learning, VNU Journal of Science: Education Research, Vol. 39, No. 4, 2023, pp. 70-77, https://doi.org/10.25073/2588-1159/vnuer.4727.
- [14] M. R. Setiawan, P. Wiedarti, The Effectiveness of Quizlet Application towards Students' Motivation in Learning Vocabulary, Studies in English Language and Education, Vol. 7, No. 1, 2020, pp. 83-95, https://doi.org/10.24815/siele.v7i1.15359.
- [15] A. G. Anjaniputra, V. A. Salsabila, The Merits of Quizlet for Vocabulary Learning at Tertiary Level, Indonesian EFL Journal, Vol. 4, No. 2, 2018, pp. 1-11, https://doi.org/10.25134/ieflj.v4i2.1370.
- [16] Melvina, N. S. Lengkanawati, Y. Wirza, The Use of Technology to Promote Learner Autonomy in Teaching English, In Proceedings of the 13th Conference on Applied Linguistics (CONAPLIN 2020), Vol. 546, 2021, pp. 315-321, https://doi.org/10.2991/assehr.k.210427.048.
- [17] D. Little, J. Ridley, E. Ushioda, Towards Greater Learner Autonomy in the Foreign Language Classroom, Dublin: Authentik, 2002.
- [18] J. Reeve, H. Jang, D. Carrell, S. Jeon, J. Barch, Enhancing Students' Engagement by Increasing Teachers' Autonomy Support, Motivation and emotion, Vol. 28, No. 2, 2004, pp. 147-169, https://doi.org/10.1023/B:MOEM.0000032312.954 99.6f.
- [19] A. Leis, A. Tohei, S. Cooke, Smartphone-assisted Language Learning and Autonomy, International Journal of Computer-Assisted Language Learning and Teaching, Vol. 5, No. 3, 2015, pp. 1-14, https://doi.org/10.4018/IJCALLT.2015070105.
- [20] Notion Statistics: Growth, Revenue and More, https://www.simple.ink/blog/notion-stats/,f2023 (accessed on: July 10th, 2024).

Appendix

QUESTIONNAIRE

SECTION 1: PERSONAL INFORMATION

- 1. What is your name?
- 2. Which university are you going to?
- 3. What is your university major?
- 4. How long have you been learning English?
- 5. How many English sessions at university do you have in a week?

SECTION 2: Effectiveness of Notion app to the Development of Learner Autonomy

Tick ONE option to indicate how much you agree with each of the following statements.

Items	Totally Disagree	Disagree	Agree	Totally Agree
Taking charge of learning				
Notion app facilitates me to evaluate the extent to which I have achieved my goals.				
Notion app helps me monitor my own learning progress.				
Notion app helps me identify my own learning problems.				
With the availability of Notion app, I know how to address my learning problems.				
With the support of Notion app, I am better at meeting deadlines.				
Notion app facilitates my setting of my own learning goals (what I want to achieve, e.g. vocabulary, reading and writing skills, communication skills, etc.).				
Having positive attitudes				
I enjoy learning experiences with Notion app.				
With the availability of Notion app, I am more willing to learn English.				
With the availability of Notion app, I feel more positive towards learning English.				
Notion app motivates me to learn without external rewards.				
Learning Cooperatively				
Notion app allows me to seek help and support from peers.				
Notion app allows me to learn with, and from others.				
Notion app allows me to join classroom interactions and discussion.				
Developing study skills				
With the availability of Notion app, I am able to identify and develop learning strategies (e.g. learn words by parts of speech, form sentences from new words, organize a table of important grammar rules).				
With the availability of Notion app, I am able to learn with a variety of materials and resources to enhance learning (e.g. textbooks, films, newspapers, websites).				
With the availability of Notion app, I am able to plan where I want to learn (e.g. in the classroom, outside the classroom, at home, in the library).				
Notion app develops my ability to study English by myself.				
With the availability of Notion app, I am able to develop individual daily/weekly learning plans.				
Building a positive relationship with teacher				
Notion app facilitates my independence from my teacher.				
With the availability of Notion app, I am more respectful towards the formality of teacher-student relationship.				
With the availability of Notion app, I perceive teacher's controlling behavior in a positive way.				
Notion app allows me to develop a friendship with my teacher.				