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Timely adoption of Grammarly to cultivate autonomous learning culture

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Article Info	ABSTRACT
	Incorporating technology with linguistics has created opportunities to explore the effectiveness of grammar checkers in cultivating an autonomous learning culture among English as a second language (ESL) and English as a foreign language (EFL) learner. Even though there have been numerous studies on grammar checkers to cultivate autonomous learning culture in higher-education contexts, there are still limited studies in school settings. Thus, this study aims to explore the efficiency of grammar checkers in cultivating an autonomous learning culture among ESL/EFL school students. For this purpose, a qualitative study was conducted, and 13 students aged 16 years from a private Chinese school participated and shared their experiences through a questionnaire. The grammar checker Grammarly has been employed. The findings of this study showed that students found Grammarly easy to use and can correct their writing errors besides improving their grammatical and vocabulary knowledge. Students generally stated that Grammarly helps them to write with less dependence on teachers and helps them to learn the language autonomously. However, 6 out of 13 participants disagreed that Grammarly helps language use. Thus, it is important to know the challenges before employing grammar checkers in the school setting to cultivate an autonomous learning culture.

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1. INTRODUCTION

Adapting contemporary technologies to sustainable education has been the subject of numerous scholarly investigations and analyses. Numerous studies investigating the efficacy of grammar checkers for English as a foreign language (EFL) and English as a second language (ESL) were undertaken after researchers used them for error detection and corrective feedback. Online grammar checkers seem to have a lot of potential as a beneficial language-learning tool since they can provide quick, useful, and easy-to-use feedback [1]. Conventionally, teachers give corrective feedback manually, but in recent years, grammar checkers have developed the ability to do the same thing. Similarly, it is intriguing that automatic corrective feedback by grammar checkers has the potential to cultivate an autonomous learning culture among students [2]. Defined autonomous learning as the capacity of students to gain knowledge without the assistance of

teachers [3]. Additionally, Xie and Yang [4] mentioned that targeted self-learning materials are crucial in fostering students' autonomous learning knowledge independently. Even though there have been numerous studies on grammar checkers for autonomous learning culture in higher-education contexts, there are still limited studies on how effectively they foster an autonomous learning culture in school settings.

Thus, this study aims to explore the efficiency of grammar checkers in fostering an autonomous learning culture among ESL/EFL school students. This study will also prepare students for emerging learning developments in the future. For these purposes, a qualitative study was conducted, and 13 students aged 16 years from a private Chinese school participated and shared their experiences through a questionnaire. Highly used grammar checker Grammarly has been employed. Grammarly is hailed as the most precise English grammar checker in the world because it offers over 250 grammatical checks, and for each grammar issue it addresses, Grammarly offers both "short" and "long" explanations, along with feedback that frequently includes examples [5]. This study sought to answer the following research question. "How can Grammarly be an effective tool to cultivate Autonomous learning culture among ESL/EFL school students?".

2.   METHOD

This qualitative study aims to explore the efficiency of Grammarly in cultivating autonomous learning among ESL/EFL school students. Qualitative studies are particularly useful for understanding the specific context in which respondents respond and the impact of their actions in this context [6]. Given this, 13 ESL/EFL students aged 16 years old from a private Chinese school in Ipoh Perak Malaysia were chosen to be the participants of this study Student participants are studying at the upper secondary level and have been learning English for ten years in school. Each student must analyze six essays composed by them continuously for six weeks. Each week they will record their score before and after analysis. Upon completion of six weeks, students will be given a questionnaire to share their experience of employing Grammarly. The questionnaire was created in Google Forms and distributed to the students through Google Classroom. The questionnaire contains ten close-ended questions with one open-ended question to allow students to express themselves freely. To improve the quality of the user experience, closed-ended questions are frequently combined with open-ended questions for additional statements in user experience or usefulness surveys [7]. The questionnaire uses Likert scale ratings ranging from strongly agree, agree, disagree, and strongly disagree. The data of responses were collected, recorded, tabulated, and converted into percentages automatically in the Google Form.

3.   RESULTS AND DISCUSSION
3.1. Findings

The findings were recorded and then tabulated for better accuracy. Table 1 described the results by relating the questions and the scale of students' responses for section 1 which reveals students' perceptions on the efficiency of Grammarly to improve their writing skills. Whereas Table 2 described the results by relating the questions and the scale of students' responses for section 2 which reveals the efficiency of Grammarly in fostering autonomous learning culture among students.

The first section of the questionnaire is to obtain students' perceptions on the efficiency of Grammarly to improve their writing skills. Based on Table 1, a total of 12 students agreed that Grammarly is easy to use, and 1 student disagreed with this statement. Meanwhile 7 students agreed that Grammarly can improve their language skills and 6 students disagreed with this statement. When asked if Grammarly helps them to identify errors and provide feedback on ways to correct them, 8 students agreed and 5 students strongly agreed with this statement. Next question is to find out if Grammarly can expand their vocabulary knowledge, 11 students agreed and 2 students strongly agreed. The final question is to find out if Grammarly helps them to improve their grammar, 10 students agreed and 3 students strongly agreed.

The results of the second section are aimed to show the efficiency of Grammarly in fostering autonomous learning culture among students. Based on Table 2 a total of 11 students agreed that Grammarly helps them to write with less guidance and 2 students strongly agreed with the statement. When asked if Grammarly helps them to learn English without a teacher's presence, 10 students agreed, 2 students strongly agreed, and 1 student disagreed with this statement. 8 students agreed and 3 students strongly agreed that Grammarly encouraged them to learn language independently, however, 2 students disagreed with this statement. When asking students if they will use Grammarly in the future 11 students agreed to this statement, 1 student disagreed, and 1 more strongly disagreed. Finally, 9 students agreed, and 4 students strongly agreed with the statement "It would be a great help for students if the school allowed them to use Grammarly".

Table 1. Survey questions and students' responses: section 1

Questions	Strongly agree	Agree	Disagree	Strongly disagree
Grammarly is easy to use.	0	12	1	0
Grammarly helps me to improve my language skills.	0	7	6	0
Grammarly helps me to identify errors in my writing and provide solutions to fix them.	5	8	0	0
Grammarly helps me to expand my English vocabulary.	2	11	0	0
Grammarly helps me improve my grammar knowledge.	3	10	0	0

Table 2. Survey questions and students' responses: section 2

Questions	Strongly agree	Agree	Disagree	Strongly disagree
Grammarly helps me to write with less guidance from teachers.	2	11	0	0
Grammarly helps me to learn English without the teacher's presence.	2	10	1	0
Grammarly encourages me to learn English independently.	3	8	2	0
I will always use Grammarly in the future.	0	11	1	1
It would be a great help for students if schools allow students to use Grammarly.	4	9	0	0

3.2. Discussion

Traditionally, teachers played a significant role in encouraging students to adopt an autonomous learning culture. However, with the advent of technology, students are now able to adopt an autonomous learning culture with the aid of grammar checkers, particularly Grammarly. A general enthusiasm for the use of emerging technologies to engage students, foster autonomous learning, create clear instructional pathways, and develop transferable 21st century skills [8]. Student participants expressed their convenience in using Grammarly to correct the writing errors referring to the feedback provided. The participants stated that Grammarly helps them to learn from their writing errors and the feedback provided by Grammarly and able to write with less guidance from teachers. These findings align with past studies results of [9]–[11] where Grammarly gave participants feedback on similar writing-related topics that helped them become more accurate writers by helping them with their grammar, punctuation, mechanics, and style. Meanwhile, a study by Nova [12] stated that there might be long-term advantages for students where the majority of students thought the explanations had improved their comprehension of grammar rules and that can be applied to future writing. Additionally, [13], [14] studies employing Grammarly proved that Grammarly improves students' writing, especially when it comes to grammatical elements like sentence structure, subject-verb agreement, spelling, and punctuation.

Students that participated in this study indicated the same sentiment as in previous studies i.e. "Grammarly is very useful to me because it helps me to learn from my grammar mistakes. The feedback is very useful". Meanwhile, another participant stated that "Grammarly is a good app because it could suggest corrections for mistakes in our writing and thereby improve the quality of our writing". In line with the behaviourist computer assisted language learning (CALL) [15] claims that the computer is capable of performing the linguistic drills repeatedly while also providing immediate feedback, Grammarly could also provide corrective feedback repeatedly till students comprehend the feedback and are aware of the errors made thus correcting them. Similarly, when students learn from their mistakes it enables them to empower the language use and motivate them to construct grammatically correct sentences. Additionally, the students mentioned that Grammarly had improved their vocabulary and grammar knowledge, which enabled them to write better essays. Through the feedback, they improved their writing on their subsequent attempts. As stated by a participant, "I think Grammarly is good for us because it can improve our grammar and vocabulary knowledge", and "It will be very helpful for students. It can improve students' English proficiency". In line with this, a study by O'Neil and Russel [16] found that Grammarly may foster autonomy in students. Referring to Communicative CALL, the second and third principles stated that students learn grammar implicitly rather than explicitly, empowering and motivating them to construct their sentences as opposed to modifying prefabricated language.

The findings of the first section showed 7 participants agreed that Grammarly helps them to improve their language skills, 6 participants disagreed with this statement. Even though the students did not give specific justifications for their disagreements, this suggests that there are some factors to consider before cultivating an autonomous learning culture among school students using Grammarly. Past studies by Ghufron [17] found that students are perplexed by the system's feedback, particularly when it comes to lengthy sentences of grammatical correction due to their inadequate language skills. Given that, it is important to discuss Grammarly's limitations from past studies to provide input for improvement. A student's level of proficiency is one of the factors mentioned in past studies as the limitations for the efficiency of Grammarly.

Learner autonomy is also related to how students view their own abilities. Subsequently, [18] reiterated that learner autonomy is also related to how students view their own abilities. While highly proficiency students could comprehend the feedback better, the students from the low-proficiency group might face challenges in comprehending the feedback and could not decide whether to accept or dismiss the suggested correction. For some students, Grammarly's use of metalinguistic terminology could be more of a hindrance than a help and teachers might need to start by helping students process some of the comments and recommendations [5], [19]. Grammarly's feedback must be comprehended correctly by students to benefit from it completely. Similarly, Baskaran *et al*. [20] mentioned that informational skills and digital communication skills are closely related to digital language competency. Therefore, students' level of proficiency is among the primary factors to consider when employing Grammarly to cultivate autonomous learning culture in the school context. Low proficiency students should be given teachers' guidance while employing Grammarly.

Koltovskaia [21] emphasised that students should be given the right guidance and instructions on how to use Grammarly feedback in order to benefit from it. Again, this clarified that in order for students to fully benefit from Grammarly, they should be given sufficient guidance on how to use it and understand the feedback that is provided. Additionally, Grammarly's flawed feedback is another important factor that should be considered. The Grammarly feedback's accuracy, propensity to overlook mistakes, and ability to correctly correct constructions were students' main complaints [16]. Not all of the feedback by Grammarly was found to be correct. Some of the feedback is inconsistent and this confuses students. Cavaleri and Dianiti [5] cautioned that even though Grammarly is quite advanced, users should carefully consider each recommendation in light of the flawed feedback it offers.

Although the findings revealed that school students agreed that Grammarly would be a great help in ESL/EFL learning, teachers' guidance is required in areas that may challenge students, and low proficiency students should be accompanied by teachers when using Grammarly for writing tasks. In general, students found that Grammarly is very helpful for them to learn the language effectively. Answering the research question, it is found that Grammarly could be used as a tool to foster autonomous learning culture in school context with the guidance of teachers. This finding aligns with a past study stating Grammarly could be used as a tool to encourage autonomous leaning [22]. Grammarly. However, students are not advised to use Grammarly without teachers' presence for learning purpose since Grammarly has its own limitations. Integrated pedagogy or blended learning is the best option where teachers act as facilitators and students regulate the computer-based error analysis employing Grammarly or other grammar checkers to comprehend their mistakes and correct them independently [23], [24]. Students can thus be encouraged to adopt an autonomous learning culture in which they assess their work, correct their mistakes using feedback from the grammar checker, and consult the teachers for any unresolved issues. Strengthening this, [25], [26] stated that autonomous learning and technological integration are closely related to today's educational requirements.

4.   CONCLUSION

This study aims to investigate the acceptability of grammar checkers in cultivating autonomous learning culture among ESL/EFL students in school context. Grammarly was employed for this purpose, and for six weeks, students independently proofread and corrected the errors in their writing by employing Grammarly before responding to a questionnaire. According to the study's findings, students have a favourable attitude toward using Grammarly to write more effectively. Students found Grammarly easy to use and able to correct their grammatical errors in their writing. They also concurred that by reading and comprehending the explanation provided to correct the mistake, they were able to improve their grammatical and vocabulary knowledge. Students stated that Grammarly helps them to write with less guidance from teachers and helps them to learn the language independently. Although students did not mention Grammarly's limitations, 6 out of 13 participants disagreed that Grammarly aids in language improvement and language use. For this reason, it is important to be aware of Grammarly's limitations when using it to encourage students to learn the language independently. Past studies mentioned Grammarly's restrictions on inaccurate feedback, students' proficiency levels and knowledge to use the Grammarly are among the factors to consider before encouraging school students to employ it for autonomous learning.

Grammarly may serve as a grammar checker to foster a culture of independent learning within an educational setting, under the supervision of instructors. It is not recommended that students utilise Grammarly for educational purposes without the guidance and support of their teachers, due to the inherent limitations of Grammarly. Therefore, teachers can promote autonomous learning by serving as facilitators who encourage students to critically examine their writing and correct errors by comprehending the justifications provided in Grammarly. Institutions ought to grant students permission to utilise Grammarly as a writing aid, under the supervision of instructors. While this study effectively addressed the research question, it is important to acknowledge that including participants from the same educational institution

constitutes a limitation. Consequently, subsequent investigations might concentrate on an identical research framework while incorporating a greater number of participants hailing from diverse academic institutions or schools. This is essential because the implications of this research could benefit students attending not only schools but also institutions of higher education.

ACKNOWLEDGEMENT

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