

Exploring AI-Generated Feedback on English Writing: A Case Study of ChatGPT

ZHU Yutong, ZHANG Leqi, ZONG Rongxiao, SUN Hang
University of Shanghai for Science and Technology, Shanghai, China

As a large-scale language model, chatbot ChatGPT has attracted wide attention from the industry and academia since its advent. Its powerful computing power and massive corpus subvert the teacher-centered writing feedback model. Taking college English compositions as the research object, this study compares the feedback of teachers and the feedback of ChatGPT, analyzes the advantages of ChatGPT in grammar revision and punctuation correction (primary modification), vocabulary replacement, semantic fluency and style adjustment (intermediate refinement), and summary writing (high-level output), and provides some references for the application of ChatGPT in English writing and teaching practice.

Keywords: English writing, case study, ChatGPT, feedback

Introduction

Writing, as a creative mental labor process, is highly logical, purposeful, and practical, which makes it an important indicator to test a person's language level. Nowadays, writing English as a Foreign Language (EFL) has become one of the goals that many foreign language learners focus on. In the process of EFL learning, EFL teachers' feedback plays an important role that cannot be ignored.

Many researchers domestically and abroad have made positive comments on teacher feedback. Many studies show that teacher feedback is the most core part of the feedback mechanism and plays a leading role in teaching and learning. For example, teacher feedback can improve the accuracy of students' writing and help students revise their compositions efficiently (Ferris, 1997; Chandler, 2003). In addition, teacher feedback can teach students English writing skills, cultivate their English expression ability at a higher level, and provide effective guidance on the content and logic of students' writing (Wang, 2006; Chen & Li, 2009). However, there are also some studies pointing out the shortcomings of teacher feedback. For example, teacher feedback needs to consume a lot of time and energy, which can make teachers feel tired and powerless; teachers tend to give the same feedback when facing a large number of demands. Teachers often fail to truly and accurately understand students' writing ideas and content core, and may give misleading feedback; the feedback given by teachers often has critical characteristic, and a large amount of teacher feedback is likely to frustrate students' writing enthusiasm to some extent (Truscott, 1999). What's more, some studies have

ZHU Yutong, B.A., College of Foreign Languages, University of Shanghai for Science and Technology, Shanghai, China.
ZHANG Leqi, B.A., College of Foreign Languages, University of Shanghai for Science and Technology, Shanghai, China.
ZONG Rongxiao, B.A., College of Foreign Languages, University of Shanghai for Science and Technology, Shanghai, China.
SUN Hang (Corresponding author), Ph.D., lecturer, College of Foreign Languages, University of Shanghai for Science and Technology, Shanghai, China.

pointed out that the traditional teacher feedback system has fallen behind the needs of the times. Compared with other more advanced and comprehensive feedback systems, teacher feedback lacks some innovation and flexibility.

In EFL teaching and learning, apart from teacher feedback, there are two common feedback modes: peer feedback and machine feedback. The main practice of the former mode is that students in the class read and evaluate each other's writing, and give comments and suggestions. The practice core of the latter mode is Automated Writing Evaluation (AWE), which uses software program to generate the assessment of students' writing works, and has the characteristics of timeliness and high efficiency. In recent years, with the continuous development of science and technology, machine-help teaching is gradually integrated into the teaching system. Machine feedback has become increasingly popular, and many AWE systems have been produced, such as Pigai (Geng & Razali, 2020). As a tool for teachers to give feedback, they greatly improve the efficiency of teachers' feedback and reduce the burden of teachers (Ranalli, 2018). Taking Pigai as an example, students enter their works in the corresponding position on the web page according to the topic given by the teacher, and Pigai will immediately give evaluation scores. In addition to the scoring system, Pigai will make refined comments, including wrong word warning, learning tips, recommended expressions, collocation correction, and expansion discrimination. According to the theme of the work, it will give a similar content of the recommended works and sample. What's more, Pigai will record all the user's writing works, conduct data analysis, depict the user's growth trajectory, and make corresponding evaluations. The research data show that the AWE systems represented by Pigai have many advantages. For example, they can help users independently create, evaluate, revise, and polish articles (Chen & Cheng, 2008; El Ebyar & Windeatt, 2010). Their new feedback mode fused with teacher feedback can combine the humanism of teacher feedback with the comprehensiveness of machine feedback to the greatest extent, thus improving writing motivation, writing perseverance, and writing quality (Grimes & Warschauer, 2010; Link, Mehrzad, & Rahimi, 2022). Most teachers and students hold a positive attitude towards AWE system, believing that it can stimulate students' interest in writing, relieve the pressure brought by writing, and enhance their confidence in writing (Ai, 2021). Despite this, the AWE systems still face many questions. Some studies believe that the feedback of AWE system tends to focus on evaluating and correcting the surface characteristics of students' writing works, but there is a big defect in paying attention to the topic and content of the composition (Cao & Zhao, 2023). Such characteristics may make students' foreign language writing more procedural and superficial. Therefore, many teachers choose to use AWE systems to share simpler tasks, such as correcting grammar errors and improving phrase collocation. In this case, teachers will have more energy to carry out deeper feedback work (Ai, 2021).

With the in-depth development of science and technology, artificial intelligence (AI) and natural language processing (NLP) have made rapid progress. Some large language models (LLMs) have also emerged and are in the stage of rapid replacement. Compared with the AWE system, the LLMs at this stage have greatly improved their ability to understand, analyze, evaluate, and modify human written texts. The feedback they give is no longer limited to the superficial characteristics of the text, and the suggestions they give in terms of the structure of the article, the content of the article, and the main idea have made considerable progress. When this technique is applied to foreign language writing teaching and is used to assess and modify students' compositions, the differences between LLMs' feedback ability and that of EFL teachers are to be explored. At this stage, LLMs represented by ChatGPT is of rapid development. Understanding the differences between them and EFL teachers

can help EFL teachers better perform in foreign language teaching. It is worth mentioning that the goal of our comparison is not to verify whether machine feedback has the potential to replace teacher feedback, but to explore how AI, led by ChatGPT, can better assist teachers in their feedback work.

ChatGPT

Various LLMs have shown strong momentum in the 21st century, with ChatGPT (OpenAI, 2022) gaining the most momentum. ChatGPT is a chatbot program developed by OpenAI and released on November 30, 2022. It is a natural language processing tool driven by artificial intelligence technology, which can carry out conversations by understanding and learning human language. It can also interact according to the context of the chat, and even complete tasks such as composing emails, video scripts, copywriting, translation, code, and writing papers. In terms of foreign language writing, ChatGPT can help generate writing outline, provide specific ideas and ideas, improve the speed of literature reading, and improve the quality of writing. As the right hand of EFL teachers, ChatGPT can break the discipline barrier, help teachers quickly understand the development trend of the field involved in the article, better understand the research field of students, and give more comprehensive and effective feedback. In addition, ChatGPT helps teachers generate classroom materials (Guo, Feng, & Hua, 2023b).

After teachers use ChatGPT to solve the language errors in students' compositions, they can focus on higher-order problems such as the structure and logic of the essay. This not only saves the teacher's time and energy, but also improves the effect of revision (Guo et al., 2023a). Nonetheless, ChatGPT has been criticized for its potential negative impact on students' learning and academic publishing. For example, the dispute whether ChatGPT can be recognized as the author of the article has arisen (Thorp, 2023); ChatGPT has the risk of promoting cheating and hindering the development of students' critical thinking, so how to make ChatGPT better promote classroom development becomes an urgent problem to be solved (Yang, 2023).

Although it is subject to many controversies, its great prospect and potential in the field of education is beyond doubt. However, there are few studies to explore the role of this powerful AI in EFL teaching. Therefore, we tend to explore the differences between ChatGPT's machine feedback and EFL teacher feedback, and how EFL teachers can collaborate with ChatGPT to give feedback in order to promote the development and progress of EFL writing teaching and learning.

Research Questions

In this study, we aim to investigate the differences between ChatGPT's feedback and EFL teachers' feedback on EFL students' writing, and explore how teachers can use ChatGPT more effectively to complete their feedback work. To achieve this goal, the following two research questions were proposed:

RQ1: What are the differences between ChatGPT-generated feedback and teacher feedback on EFL writing?

RQ2: How to make ChatGPT better serve EFL teacher feedback?

In response to RQ1, we compare ChatGPT and EFL teacher feedback performance, and conduct a detailed assessment through multiple aspects to investigate ChatGPT's ability to give feedback on EFL student writing. Moreover, we explore the advantages and disadvantages of ChatGPT's feedback on EFL student writing in order to answer RQ1 more comprehensively. In response to RQ2, based on the experimental results of RQ1, we explore ways in which ChatGPT can better serve EFL teachers and give students better feedback on their writing, that is, the prospects for collaboration between the two.

Methods

Participants

We recruited three Chinese EFL teachers (one male and two females) using the convenience sampling method. Teachers A and B have seven years of experience teaching English to undergraduates. Teacher C has been teaching English to undergraduate students for five years. Teacher A holds a doctoral degree, and each of the other participants holds a master's degree. They always give feedback on their students' writing. We recruited 50 students coming from Teachers A, B, and C's classes randomly. They are sophomore students who major in English. All of them were enrolled in an English writing course, which covers writing norms, punctuation, proper word usage, sentence formation, extended paragraphs, summaries, and academic writing.

Data Collection and Analysis

Fifty English argumentative essays written by Chinese undergraduate students (24 males and 26 females) were used as the feedback provision targets in this study. The essays were submitted as an after-class assignment, contributing to 15% of their final course score.

ChatGPT was used to evaluate the 50 essays and generate feedback. Three prompts were created to obtain feedback outputs from ChatGPT:

1. Please provide comments and suggestions on the language of the essay;
2. Please provide comments and suggestions on the structure and organization of the essay;
3. Please provide comments and suggestions on the content of the essay.

Notably, we only used the first output from ChatGPT in response to each prompt. The outputs were collected by a research assistant in the US. At the same time, each participating teacher was assigned to provide feedback on these essays. To investigate the differences between ChatGPT feedback and teacher feedback, the teachers were given the same prompts as ChatGPT to evaluate the three aspects of the essays. To ensure that the teachers would generate feedback in the manner in which they were accustomed in their previous teaching practices, we did not provide them with any other instructions or guidelines. The teachers were required to complete the feedback task within two weeks and to note the time they spent commenting on each essay. After the teachers' submission of their feedback, we compared the feedback generated by ChatGPT with teachers' feedback.

Results

Primary Modification

Primary modification includes the modification of grammar and punctuation. Example 1 is excerpted from the CET-4 composition training and the topic is "How to avoid prize and sweepstake fraud".

Example 1

Student's composition: The rapid development of the Internet provides convenience for our lives, but it also brings some security risks. In our daily life, this kind of prize and sweepstake fraud happens from time to time, which tempts people to get high bonuses easily. But this is often just a trap aimed at defrauding personal or financial information. In order to protect our privacy and property, we need to beware of prize and sweepstake fraud. Here are some advice for cell phone users.

Teacher's feedback: This paragraph has problems with punctuation and grammar. Ideas of some sentences are vague.

ChatGPT: Sure, here's a corrected version with proper grammar and punctuation: The rapid development of the Internet has brought convenience to our lives but also heightened security risks, particularly in the form of prize and sweepstake fraud. This type of fraud is a common occurrence, tempting individuals with promises of high bonuses that are, in reality, traps designed to extract personal or financial information. To safeguard our privacy and property, it is crucial to be aware

of and actively prevent falling victim to these scams. Here are some pieces of advice for cell phone users. I made a few changes to the original sentence to improve its clarity and correctness. These changes include: (a) changing “but it also” to “but also”; (b) changing “brought” to “heightened”; and (c) adding “particularly in the form of”.

As shown in Example 1, there are several obvious grammatical problems in this student’s composition:

1. The words “provide convenience” are Chinglish and should be “bring convenience to”;
2. “Just” is too colloquial and is not suitable for writing.

The teacher uses indirect feedback and focused feedback to point out grammar and punctuation problems. ChatGPT retains the structure of the original sentence and addresses the misuse of words, oral expression, structural confusion, and punctuation modification. It accurately captures the student’s thoughts and modifies two simple sentences into one compound sentence. Not only does this modification enhance logic but also polishes the language.

Intermediate Refinement

Intermediate refinement mainly includes vocabulary replacement, semantic fluency, and style adjustment, aiming to improve students’ vocabulary richness and enhance the accuracy and conciseness of composition. Example 2 is excerpted from CET-6 composition training. Students express their views on beauty.

Example 2

Student’s composition: Society teaches young girls that beauty is their most important quality. In order to prevent eating disorders and other health problems, we must change society.

Teacher’s feedback: “Society” appears twice. This word can be interpreted in different ways. Please choose an alternative to explain its specific meaning.

ChatGPT: The statement could be revised for clarity and variety in word choice as follows: “Society instills in young girls the belief that beauty is their paramount attribute. To combat eating disorders and other health issues, we need to transform societal norms”. Here, “community” or “culture” could be potential synonyms for “society” in the revised sentence. The revised sentence condenses the original by eliminating repetition and unnecessary verbiage, while also using more precise language to convey the same meaning.

As shown in Example 2, the teacher gives focused indirect feedback, that is, the word “society” should be replaced with other words. After receiving indirect feedback from the teacher, the student further communicated with the teacher and said that “I don’t know how to choose a more specific and authentic word”. It can be seen that many students have a clear understanding of the problem of inexpressiveness, but due to their limited English level at this stage, they cannot write more authentic expressions. This also confirms Li Xiaoyu’s (2014) point of view that indirect feedback effect is limited for freshmen with relatively low English level, and students do not have the corresponding language ability to correct their aware writing mistakes. By contrast, ChatGPT solves this problem well. Its direct feedback not only provides a variety of vocabulary expressions to take the place of “society”, but also enriches the discourse expression of the composition by changing sentence patterns.

Example 3 is excerpted from the TOEFL composition training. This student’s composition argues that human beings are social animals, so the first thing we have to learn is to get along with people. However, some words are repeated, resulting to the monotonous style of the whole sentence.

Example 3

Student’s composition: Human beings are social animals. The first thing we have to learn is to get along with people, and the campus provides us with a good opportunity to get along with people.

Teacher’s feedback: “Get along with” is repeated unnecessarily. Try to change them with other words.

ChatGPT: The statement highlights the importance of social interaction for human beings, particularly during the campus experience. However, it could benefit from some refinement to avoid repetition. Here's a potential revision: "As social beings, it is crucial for us to acquire interpersonal skills as one of our primary lessons in life. The campus environment offers an excellent opportunity for us to foster and cultivate these skills through meaningful interactions with others". In writing, the words should not be too vague and hollow, but as specific and clear as possible, so as to improve the language quality and readability of the article.

Compared with the teacher's feedback, ChatGPT's feedback is more detailed. It rewrites the content and structure of the sentences on the basis of retaining the meaning of the original text, so that the expression is more accurate and concise. For example, "get along with people" is revised as "foster and cultivate these skills through meaningful interactions with others". Of particular note, ChatGPT condenses "human beings are social animals" and "the first thing we have to learn is to get along with people" into one concise sentence with strong causal relationship. Finally, ChatGPT gives the concrete basis for revision, and points out the direction for students to write or revise in the future.

High-Level Output

In addition to primary modifications and intermediate refinements, ChatGPT can also output according to specified text or requirements. Take summary writing as an example. Example 4 is excerpted from the composition training of TEM-4. The original text is "Are Competitive Games Harmful to Children". Students read the text and then write summaries. It is not difficult to see that the summary generated by ChatGPT meets the requirements of teachers' indirect feedback, that is, it gives a comprehensive overview of each paragraph and effectively connects topic sentences of each paragraph. Therefore, for some essay questions without references, teachers can make full use of ChatGPT's high-level output ability and use ChatGPT to generate examples as a supplement to teachers' indirect feedback.

Example 4

Student's composition: Although many people argue that competitive games do harm to children, actually they are valuable. Children can experience ups and downs and know how to deal with disappointment. They develop qualities and create the desire to do better so they can succeed in competitive atmosphere.

Teacher's feedback: You have got all the key points right, but the summary lacks logic and coherence.

ChatGPT: The summary presented on the impact of competitive games on children outlines some positive aspects, but it could be improved in terms of logic and coherence. (1) The initial contrast introduced through "Although" is unnecessary since the subsequent statement contradicts the argument. (2) Clarify the distinction between "harm" and the subsequent discussion of valuable aspects; rephrase to emphasize the positive aspects of competitive games. (3) Emphasize the connection between experiencing ups and downs, and the ability to handle disappointment. And (4) Specify the qualities that children can develop through competitive games.

Teachers can utilize ChatGPT to generate examples or explanations that can be used as a supplement to their indirect feedback for students. For example, if a student is struggling with a particular grammar concept, the teacher can provide indirect feedback on the errors and then use ChatGPT to generate additional examples to help the student better understand how to apply the concept correctly. This approach can enhance the learning experience by providing personalized examples tailored to the student's needs.

Discussion

When comparing the differences in English writing feedback between ChatGPT and traditional teachers, a significant phenomenon is presented. ChatGPT showed significant changes during the process of sentence

modification. The modified sentence has significant differences in structure and voice compared to the original text, but its conveyed meaning remains consistent. This type of change reflects a closer resemblance to colloquial expression, demonstrating the dynamism of ChatGPT in the editing process and its adaptability to generating sentences. On the other hand, teachers may overlook the fundamental adjustments in Chinglish expression in their feedback, sometimes overly focusing on synonymous substitution of vocabulary, or exploring whether the choice of a certain vocabulary appears more advanced to conform to the specific style of exam oriented education. In the editing process of teachers, they may only be limited to fine-tuning certain vocabulary in sentences and rarely make large-scale modifications to the structure of the entire sentence.

This difference may have its roots in teaching and language acquisition concepts. Teachers bear the responsibility of following specific educational norms and exam standards during the teaching process, which may lead them to be conservative and pay attention to detail accuracy when revising writing. In contrast, ChatGPT, as an artificial intelligence program based on a large amount of data, is not explicitly limited by these standards and paradigms in language generation. Therefore, it can more freely reorganize sentences when providing feedback, making it smoother and more natural.

Furthermore, language is a precise and flexible communication tool, and expressing the same meaning can have multiple different structures and vocabulary. In academic writing, clarity and accuracy of expression are crucial. However, this accuracy does not always mean completely rejecting colloquial expressions. In fact, making language closer to natural spoken language may help enhance readers' understanding. At this point, ChatGPT's editing style can provide a new perspective for traditional writing and teaching, that is, while maintaining academic relevance, attention should also be paid to language readability and fluency.

In summary, the strategies adopted by ChatGPT and traditional teachers in English writing feedback each reveal a balance between two different levels of language accuracy and naturalness of expression. Considering this, both teachers and learners can use ChatGPT to expand their understanding and learn how to follow academic norms while also making writing more natural and realistic in pragmatic situations. Combining these two methods may bring learners more comprehensive language proficiency enhancement and writing skill development. Meanwhile, encouraging teachers to consider a wider range of tense and structure choices when providing language teaching feedback may be more effective in helping students overcome the limitations of Chinglish expression and improve their language proficiency.

When considering the role of subjectivity in teaching feedback, there are certain differences between the feedback provided by teachers and ChatGPT. In a human centered teaching feedback scenario, the diversity of teachers' personal writing styles, teaching philosophies, and experiences often leads to significant subjectivity in their feedback. This subjectivity is not only reflected in the diversity of opinions among different teachers, but also in the preferences of each teacher in the teaching content they are concerned about.

For example, some teachers may be more concerned about the content of their students' writing, emphasizing the rigor of conceptualization, the strong support of arguments, and the coherence of arguments. They may emphasize the originality of the topic and the depth of exploration in their feedback. Other teachers may be more inclined to focus on students' language expression and style, such as grammar accuracy, vocabulary richness, sentence structure diversity, and overall structural fluency. These different preferences form their own unique focus in feedback, thereby having a guiding impact on the direction of student writing and language proficiency improvement.

On this basis, the subjectivity of teacher feedback can also be reflected in the application of rating standards, interpretation of students' writing attitudes, and encouragement or restriction of language innovation. The subjective feelings of teachers, such as their preference for a certain writing topic or inclination towards a certain expression, invisibly affect the content and style of feedback provided.

Compared to highly personalized feedback from teachers, ChatGPT, as an artificial intelligence system based on a large amount of data and algorithms, provides a more objective form of feedback to some extent. The feedback of ChatGPT, due to its data-driven nature, is less influenced by personal beliefs, teaching habits, or cultural background, thus reducing the subjectivity of feedback to a certain extent. Due to its reliance on large-scale language models and machine learning algorithms, the guidance provided by ChatGPT has a certain degree of consistency and reproducibility.

However, it must be pointed out that even ChatGPT cannot completely exclude all forms of subjectivity in the feedback it provides. The artificial intelligence model itself may imply a certain degree of subjectivity due to biases in its training data, although this subjectivity is not entirely the same as the subjectivity in traditional teacher feedback. In addition, subjectivity is not entirely negative in the teaching process. Personalized guidance and feedback from teachers can often better meet the individualized learning needs of students, thereby promoting their comprehensive development.

In summary, teacher feedback and ChatGPT feedback demonstrate different levels and influences of subjectivity and objectivity, and their respective characteristics can be used for in-depth consideration and careful selection in teaching practice. Teachers and learners should recognize these differences and integrate artificial intelligence tools and traditional educational methods reasonably to ensure diversity of feedback and optimization of teaching effectiveness. By analyzing these different dimensions of feedback, it is possible to more targeted promote the improvement of students' writing and critical thinking abilities.

Conclusions

In the field of English writing teaching, AI-assisted approaches, such as ChatGPT and traditional teacher feedback each play unique and complementary roles. ChatGPT can provide learners with real-time feedback, reduce their waiting time for writing corrections, and thus accelerate the learning cycle. In addition, ChatGPT is based on complex algorithms to process large datasets, ensuring consistency and accuracy of feedback. Especially in correcting basic grammar and spelling errors, ChatGPT has demonstrated its effectiveness, playing a positive role in improving learners' writing skills. Although ChatGPT has certain advantages in real-time feedback, it has shortcomings in providing personalized feedback and in-depth analysis, such as in-depth guidance on literary works or paper structure. AI still lacks emotional intelligence, which may not be sufficient to accurately evaluate the subtle differences in emotions and language styles in text. In addition, learners may become overly dependent on AI, which may hinder the development of their independent thinking and problem-solving abilities.

Teachers can provide highly personalized feedback, because they can intuitively understand the special needs of students and provide targeted advice and guidance accordingly. Teacher feedback is not limited to the technical level of writing, but can also cover comprehensive evaluations of expression style, emotional communication, and creativity. Experienced writing teachers can also provide flexible and in-depth critical thinking and analysis. However, the rate of providing teacher feedback is usually lower than that of AI tools, which may cause students to wait for work grading. The time and energy of teachers are essentially limited and

it is impossible to achieve immediate response. The differences in evaluation criteria and grading styles among different teachers may lead to a lack of consistency in the guidance students receive.

In order to maximize the effectiveness of writing feedback, a dual track approach can be adopted in educational practice: Firstly, students can use ChatGPT for self-correction of initial drafts, and then submit them to teachers for in-depth correction and feedback; secondly, teachers can use immediate feedback as a supplement to enhance students' practice frequency and immediacy of feedback; once again, ChatGPT can also alleviate the burden on teachers in basic grammar and spelling proofreading, allowing them to focus more on the strategic development of students' writing abilities. ChatGPT can serve as a practical tool to help students practice and understand specific writing skills and strategies under the guidance of teachers. AI can analyze historical data on student writing, assisting teachers in gaining insight into student progress and focus. In interactive learning, the use of ChatGPT can facilitate real-time practice and application in the process of teacher feedback.

In summary, ChatGPT should be seen as an auxiliary tool to enhance teacher feedback, rather than a substitute for personalized guidance and professional evaluation. The effective combination of the two will build a more efficient and in-depth learning experience for English writing.

References

- Ai, X. Q. (2021). A contrastive study of teacher feedback and Pigai intelligent feedback in senior middle school English writing (Master's thesis, Jiangxi Normal University). Retrieved from <https://link.cnki.net/doi/10.27178/d.cnki.gjxsu.2021.001265> doi:10.27178/d.cnki.gjxsu.2021.001265
- Atlas, S. (2023). *ChatGPT for higher education and professional development: A guide to conversational AI*. Retrieved from https://digitalcommons.uri.edu/cba_facpubs/548
- Cao, Y. Y., & Zhao, G. X. (2023). Research on second language writing feedback aided by automatic writing assessment system—A case study of correcting network. *English on Campus*, 24(46), 13-15.
- Chandler, J. (2003). The efficacy of various kinds of error feedback for improvement in the accuracy and fluency of L2 student writing. *Journal of Second Language Writing*, 12, 267-296. Retrieved from [https://doi.org/10.1016/S1060-3743\(03\)00038-9](https://doi.org/10.1016/S1060-3743(03)00038-9)
- Chen, C. F. E., & Cheng, W. Y. E. (2008). Beyond the design of automated writing evaluation: Pedagogical practices and perceived learning effectiveness in EFL writing classes. *Language Learning & Technology*, 12(2), 94-112. Retrieved from <http://dx.doi.org/10125/44145>
- Chen, X. X., & Li, H. N. (2009). The effects of teachers' written corrective feedback on English writing. *Journal of FLTR*, 2009, 41(5): 351-358 Retrieved from <http://old.fltr.ac.cn/CN/Y2009/V41/I5/351>
- El Ebyary, K., & Windeatt, S. (2010). The impact of computer-based feedback on students' written work. *International Journal of English Studies*, 10(2), 121-142. Retrieved from <https://doi.org/10.6018/ijes/2010/2/119231>
- Ferris, D. R. (1997). The influence of teacher commentary on student revision. *TESOL Quarterly*, 31, 315-329. Retrieved from <https://doi.org/10.2307/3588049>
- Ferris, D. R., & Roberts, B. (2001). Error feedback in L2 writing classes: How explicit does it need to be. *Journal of Second Language Writing*, 10(3), 161-184. Retrieved from [https://doi.org/10.1016/S1060-3743\(01\)00039-X](https://doi.org/10.1016/S1060-3743(01)00039-X)
- Geng, J., & Razali, A. B. (2020). Tapping the potential of Pigai automated writing evaluation (AWE) program to give feedback on EFL writing. *Universal Journal of Educational Research*, 8(12B), 8334-8343. Retrieved from <https://doi.org/10.13189/ujer.2020.082638>
- Grimes, D., & Warschauer, M. (2010). Utility in a fallible tool: A multi-site case study of automated writing evaluation. *Journal of Technology, Learning, and Assessment*, 8(6), 1-44.
- Guo, Q., Feng, R. L., & Hua, Y. F. (2022). How effectively can EFL students use automated written corrective feedback (AWCF) in research writing? *Computer Assisted Language Learning*, 35(9), 2312-2331.
- Guo, Q., Feng, R. L., & Hua, Y. F. (2023a). *Automated written corrective feedback in research paper revision: The good, the bad, and the missing*. London and New York: Routledge.
- Guo, Q., Feng, R. L., & Hua, Y. F. (2023b). Using ChatGPT in English academic writing: Benefits and issues. *Technology Enhanced Foreign Language Education*, 45(2), 18-23+107.

- Hong, Y. (2023). How I use ChatGPT responsibly in my teaching. *Nature Career Column*, 4. Retrieved from <https://www.nature.com/articles/d41586-023-01026-9>
- Li, X. Y. (2014). The effects of different types of teacher written corrective feedback on English writing accuracy of senior high school students (Doctoral dissertation, Capital Normal University).
- Link, S., Mehrzad, M., & Rahimi, M. (2022). Impact of automated writing evaluation on teacher feedback, student revision, and writing improvement. *Computer Assisted Language Learning*, 35(4), 605-634. Retrieved from <https://doi.org/10.1080/09588221.2020.1743323>
- Open AI. (2022). *ChatGPT: Optimizing language models for dialogue*. Retrieved January 7, 2023, from <https://openai.com/blog/chatgpt/>
- Ranalli, J. (2018). Automated written corrective feedback: How well can students make use of it? *Computer Assisted Language Learning*, 31(7), 653-674. Retrieved from <https://doi.org/10.1080/09588221.2018.1428994>
- Thorp, H. H. (2023). ChatGPT is fun, but not an author. *Science*, 379, 313-313. Retrieved from <https://doi.org/10.1126/science.adg7879>
- Truscott, J. (1999). The case for “the case against grammar correction in L2 writing classes”: A response to Ferris. *Journal of Second Language Writing*, 8(2), 111-122. Retrieved from [https://doi.org/10.1016/S1060-3743\(99\)80110-6](https://doi.org/10.1016/S1060-3743(99)80110-6)
- Wang, J. J. (2006). General attitude, types of feedback and types of error correction: A probe into the written feedback of college English teachers. *Foreign Language Learning Theory and Practice*, 26(3), 24-30.