

Article

# An Exploration of Chinese College Students' Attitudes toward ChatGPT's Automated Written Corrective Feedback on English Essays

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Abstract: This pilot study was conducted at a vocational college in Fuzhou, China, during the spring 2024 semester, to explore Chinese college students' attitudes toward ChatGPT's AWCF on a sample English essay. Twenty-seven college students majoring in Software Technology participated in the study and completed a survey via the WeChat survey app. SPSS and R Programming Language were used to analyze collected data. Survey results indicated that the participants generally have a positive view of ChatGPT's feedback. While not all the participants believed ChatGPT identified more errors than they did, most of them acknowledged its effectiveness in correcting errors in the sample essay. It is worth noting that no significant differences in attitudes were found between the participants with and without ChatGPT experience, indicating that previous access to ChatGPT has not influenced their attitudes toward it. Interestingly, despite the overall positive attitudes toward ChatGPT, students varied significantly in their willingness to use it for learning English in the future. Overall, this study has implications for English teachers, especially college English teachers in China, to improve their English writing instruction.

**Keywords:** Chinese EFL college students; attitudes; ChatGPT; automated written corrective feedback

#### 1. Introduction

In November 2022, ChatGPT was launched by OpenAI, a company specializing in artificial intelligence (AI) products. ChatGPT, a standout representative of AI, was defined as a generative pre-trained transformer (GPT) with the natural and intuitive ability to converse with human beings (Haleem, 2022). Armed with a massive amount of text data, ChatGPT can understand the nuances of human language and generate human-like text by giving high-quality responses based on natural language processing (NLP) (Kasneci et al., 2023; Roumeliotis & Tselikas, 2023).

ChatGPT has the advantage of providing timely and personalized feedback and tailored suggestions to raise students' interest in English as a Foreign Language (EFL) writing (Baskara, 2023), distinctive from previous automated written corrective instruments. As Barrot (2023) put it, ChatGPT can be a powerful AI-based second language (L2) writing tool for teachers and students, and it deserves attention for educational purposes.

To explore the potential of employing ChatGPT as a writing assistant in college English classrooms in China, this study conducted a pilot survey to explore Chinese college students' attitudes toward ChatGPT's automated written correction feedback (AWCF) on a sample English essay. Findings from the study may have implications for teaching and learning L2 writing with ChatGPT.

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#### 2. Review of Literature

With the advancement of AWE systems, AWCF has evolved to generate tailored feedback within seconds automatically. Since the birth of ChatGPT, intensive attention has been given to its potential role as an AWE system, and an increasing amount of research has been focusing on ChatGPT-generated AWCF.

#### 2.1. The Process of Writing

Evaluation or feedback plays a significant role in the writing process. Onozawa (2010) pointed out that the writing process is not linear but rather recursive. According to Stapa and Abdul-Majid (2009), the writing process consists of multiple phases, including prewriting, writing, evaluating, and revising. Similarly, Reynold et al. (2021) described the writing process as follows: prewriting, organizing ideas, drafting, editing, obtaining feedback, and revising to share written work. Seow (2002) agreed that the writing process is "neither sequential nor orderly" (p. 215). Figure 1 illustrates Seow's (2002) description of the writing process.

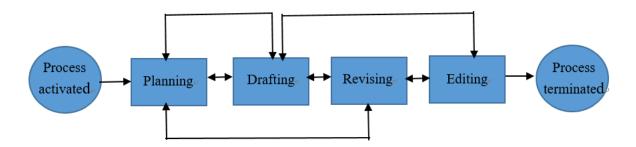


Figure 1. The Writing Process.

#### 2.2. Feedback in L2 Writing

Feedback is essential in the process of L2 writing. It is input from readers for writers to revise their work (Keh, 1990). Keh (1990) put forward that feedback can be categorized into three major types: "peer feedback; conferences as feedback; and teachers' comments as feedback" (p. 295). As he explained, "conferences as feedback" refers to an oral comprehensibility check between teacher-readers and student-writers. A teacher is perceived as a participant in the writing process instead of a grader. He added that evaluation and error correction can also be considered as feedback in revision under some circumstances.

Lin (2017) approached feedback from a different angle, who pointed out that feedback could be divided into three main types in terms of their forms, sources, and values, as listed below:

Form: Verbal feedback and written feedback (including corrective feedback and comments)

Source: Self-feedback, teachers' feedback, peer feedback, other readers' feedback, and automated feedback

Value: Positive feedback and negative feedback

#### 2.3. AWCF for L2 Writers

As AWE systems evolve, AWCF has developed accordingly. Chinese college students hold different attitudes toward AWE systems and the effectiveness of AWCF in improving their English writing as a range of studies has shown.

#### 2.4. The Development of AWE Systems

AWE systems have gained increasing attention over the last two decades. Since the emergence of Project Essay Grader (PEG) in the 1960s, AWE systems have been improving

until stepping into the era of AI when large language models (LLMs) are widely used, which enables language educators to explore the integration of AI-driven AWE systems into language teaching.

As Chung and O'Neil (1997) stated, using AWE systems means using computer web pages to check literal accuracy, receive feedback on different linguistic aspects, and obtain a score that indicates a paper's quality within seconds. AWE systems can produce "immediate computer-generated quantitative assessments and qualitative feedback on numerous submitted essays" (Bai & Hu, 2017, p. 67).

Many scholars have discussed whether AWE systems are good for language learners. Spencer and Louw (2008) held that AWE systems enable teachers and students to engage in idea organization and interaction. Li et al. (2017) argued that AWE systems' feedback can benefit both lower-proficiency and higher-proficiency English language learners (ELL) by reducing their errors through several drafts. Bai and Hu's (2017) study found that Chinese EFL college students, who were English majors, were encouraged by AWE systems to try new expressions, so the researchers concluded that it was reasonable for students to use AWE systems along with other feedback sources to improve their writing.

However, other researchers, such as Burstein et al. (2004), criticized the inaccuracy and inadequacy of AWE systems. Powers et al. (2002) found that AWE systems were more likely to give high scores than human raters and that they might offer misleading responses to students. Chen and Cheng's (2008) study revealed that students' exclusively relying on AWE without their instructor's feedback caused frustration among them and hindered the improvement of their English writing.

# 2.5. Chinese College EFL Students' Attitudes Toward AWE Systems

In recent years, many Chinese colleges and universities have introduced various AWE systems into English classrooms, among which the local web-based system *Pigai* (<a href="http://www.pigai.org/">http://www.pigai.org/</a>) has been most preferred by Chinese EFL teachers and students (Bai & Hu, 2017). For example, Wang (2018) mentioned that students felt content with *Pigai* because it provided an objective evaluation of their errors, and they were thus willing to write English essays on their own. Du (2022) and Zhang (2020) found that when assigned writing tasks for which *Pigai* was allowed, students were motivated and encouraged to complete them because using *Pigai* without their teachers' feedback lowered their writing anxiety.

Regarding attitudes toward feedback, students preferred hybrid feedback from their teachers, peers, and AWE systems (Huang & Zhang, 2014; Qi, 2023). It has been noted that students' attitudes and acceptance toward AWE systems varied based on their English language proficiency (Peng, 2019; Zhang, 2020). Peng's (2019) study found that students at the intermediate level were most satisfied with AWE systems, followed by those at a lower or higher level, whereas Zhang's (2020) study indicated that students at the high or intermediate level were most positively about AWE systems' feedback.

# 2.6. Automated Written Corrective Feedback (AWCF) in Correcting L2 Essays

AWCF, generated from AWE systems, can be a valuable source for correcting grammatical errors (Barrot, 2021; Guo et al., 2021; Ranalli, 2018). It is also capable of automatically grading an essay based on its quality (Dewi, 2022; Ranalli et al., 2017). To date, numerous studies have delved into examining whether AWCF can benefit EFL writers in terms of language forms.

Barrot (2021) claimed that AWCF is real-time, overall direct, and neutral, offering consistent error corrections and accurate metalinguistic explanations. For example, Grammarly, an AWE system, has been proven to help students minimize their writing errors and enhance their vocabulary and writing skills (Dewi, 2022). Li et al. (2017) examined Criterion, one of the web-based AWE systems, and concluded that Criterion's AWCF was

valuable. Their study found that students' awareness of run-on sentences had been ultimately improved.

Despite the above-mentioned merits of AWCF, researchers have questioned the effectiveness of AWCF. Zhang (2019) found that some students had a positive attitude toward AWCF while others complained about its vagueness. Ranalli (2018) pointed out that AWCF tends to overlook individual differences. Lee et al. (2009) noticed no significant improvement in the quality of essays with AWCF. Ranalli et al. (2017) illustrated that AWE systems, such as Criterion, failed to provide accurate AWCF and questioned its validity as a formative assessment tool. Critics are also concerned that learners may ignore AWCF or cannot understand it to internalize it because it is beyond their developmental level (Storch, 2010; Woodworth & Barkaoui, 2020), which may cause frustration among EFL students when human coaching is minimized (Chen & Cheng, 2008).

Though the quality of AWCF produced by AWE systems varies, students have considered it comparatively favorable in improving their drafts because they can repeatedly request AWCF to revise their essays (Chen & Cheng, 2008). According to Woodworth and Barkaoui (2020), learners' writing motivation was enhanced by AWCF since it fostered their autonomy, which is similar to what Du's (2022) study found. However, considering AWCF's pedagogical limitations, it has been highly recommended that AWCF should be employed together with teachers' feedback (Chen & Cheng, 2008; Peng, 2019; Qi, 2023; Woodworth & Barkaoui, 2020).

#### 2.7. Using ChatGPT in Teaching and Learning L2 Writing

The advent of ChatGPT has brought both opportunities and challenges for teaching and learning L2 writing. ChatGPT can serve as an AWE system to assist L2 writers with AWCF and writing suggestions. Meanwhile, ChatGPT challenges the traditional writing process and raises ethical concerns including plagiarism issues.

# 2.8. Previous Studies of ChatGPT as a Tool for L2 Writing

ChatGPT is seen as a tool to enhance L2 learners' writing skills (Barrot, 2023; Haleem et al., 2022) because it can automatically correct linguistic errors based on predefined criteria and give personalized recommendations (Barrot, 2023). More and more researchers have delved into the effectiveness of using ChatGPT in EFL writing.

Yan (2023) initiated a study to investigate how Chinese EFL undergraduate students perceived ChatGPT when it was applied in writing classrooms. The students were first trained to use ChatGPT to generate essays. Then, the students turned to electronic dictionaries to paraphrase and edit some of the phrases and words in the essays. During their one-week writing practices, the students were required to submit a daily learning log to report their experiences and reflections. Through observation, video recordings, and surveys, the researcher found that ChatGPT had the pedagogical potential to scaffold writing for the students. Results from the study showed that the students perceived ChatGPT as an excellent tool for generating text instantaneously with natural and well-organized language, error-free grammar, and abundant examples for many disciplines.

Su et al. (2023) explored ChatGPT's potential to help L2 students develop argumentative writing skills. By feeding evaluation rubrics and student writing samples to ChatGPT, they found that ChatGPT paved the way for students in the writing process. For example, during the prewriting stage, ChatGPT identified the connection between claims and sub-claims, evaluated the quality of argumentative evidence, and offered counterarguments, which improved the structure of an argument. At the revising stage, the students sought specific content feedback from ChatGPT after they completed their first drafts. ChatGPT immediately identified the strengths and weaknesses of a draft and listed supportive evidence to develop its argument. At the proofreading stage, students received language-related feedback from ChatGPT. For instance, ChatGPT improved

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grammatical accuracy and sentence clarity by providing word choices and sentence structures. Su et al.'s (2023) study shows that ChatGPT can be used to scaffold writing for L2 writers.

Some scholars are interested in ChatGPT's competence in academic writing. Guo et al. (2023) discussed the feasibility of using ChatGPT in academic writing. They found that ChatGPT can be used in many ways for academic writing. For example, it can generate consistent responses; it can provide research tendencies and hot topics; and it can also help writers generate outlines. In addition, ChatGPT can summarize articles or highlight critical points when it is fed with specific article titles or websites.

To evaluate ChatGPT's performance on a grammatical error correction (GEC) task, Wu et al. (2023) compared three AWE systems: GECToR, Grammarly, and ChatGPT. They found that ChatGPT outperformed the other two tools in terms of under-corrections and mis corrections. Although ChatGPT was not so powerful when dealing with longer sentences, its feedback was grammatically correct.

Nevertheless, other researchers hold different opinions about ChatGPT as a tool for improving L2 learners' writing competence. They are concerned that the use of ChatGPT in teaching L2 writing would inevitably cause ethical issues and academic plagiarism (Barrot, 2023; Baskara, 2023; Guo et al., 2023; Su et al., 2023; Yan, 2023). ChatGPT's other limitations have also been highlighted, such as its non-specific suggestions, inconsistent feedback, misleading or wrong texts and citations (Guo et al., 2023; Su et al., 2003), and overcorrections (Wu et al., 2023).

# 3. Methodology and Results

This study conducted a pilot survey to find out Chinese college students' attitudes toward ChatGPT's AWCF. The survey results revealed that most Chinese college students viewed ChatGPT and its AWCF positively.

#### 3.1. Data Collection

# 3.1.1 Instruments

The instruments for the study are a student sample essay with errors and a survey with six related questions. The survey, based on a 5-point Likert Scale, was to measure participants' attitudes toward ChatGPT's AWCF on the sample English essay (see Appendix C for the survey). It was administered online via the WeChat survey app.

# 3.1.2. Site

The study was conducted at a vocational college in Fuzhou, China. The college has more than 1,6000 students and 10 departments. It is famous for its science and engineering majors. College English is a compulsory course for all undergraduates in the college.

# 3.1.3. Participants

Twenty-seven freshmen taking College English with the researcher were invited to participate in the study. All of them are aged 18 or 19 years, majoring in Software Technology. The participants have received English education since grade three. Their English proficiency, as estimated, is intermediate low according to their scores on China's National College Entrance Examination.

# 3.1.4. Procedure

The study was conducted in an English writing class for the participants. First, all participants were provided with a sample English essay (see Appendix A) and asked to correct errors in the essay independently within ten minutes. Next, they were asked to

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read ChatGPT's AWCF on the essay (see Appendix B) individually. Last, they were invited to complete the online survey within six minutes.

#### 3.1.5. Data Analysis

Survey responses were coded and analyzed quantitively. A "Yes" response to Q1 was coded as "1"; a "No" response to Q1 was coded as "0". The following system was used to code the participants' responses to Q2-6: -2 for strongly disagree; -1 for disagree; 0 for undecided; 1 for agree; and 2 for strongly agree. SPSS 27 and the R Programming Language were the two statistical tools used to analyze the survey responses.

#### 3.1.6. Results and Discussions

As Table 1 shows, eight out of the 27 participants, that is, 29.63% of them, have used ChatGPT to learn English. However, 70.37% of the participants, the majority of them, have not used ChatGPT to learn English. The results indicate that using ChatGPT to learn English is completely new to most students.

**Table 1.** Participants' Experiences of Using ChatGPT to Learn English.

Question 1	N	Percentage (%)
Participants who have used ChatGPT to learn English Participants who have not used ChatGPT to learn	8 19	29.63 70.37
English. Total	27	100

Table 2 reports means and standard deviations concerning Chinese college students' attitudes toward ChatGPT's AWCF. As shown in Table 2 Q3 (M=1.30; SD=.465) and Q5 (M=1.15; SD=.534), the participants largely agreed that they understood ChatGPT's error corrections on the sample essay and learned at least one new English writing rule. The results verified Hypothesis 1. Hypothesis 3 was confirmed by responses to Q4 (M=1.26; SD=.656), which indicate that the participants largely agreed that ChatGPT's corrections were helpful to the sample essay. However, Hypothesis 2 has not been verified as Q2 (M=.89; SD=.751) shows that not every participant strongly believed that ChatGPT found more errors in the sample essay than them. Similarly, not every participant felt strongly about using ChatGPT for the correction of errors in their English essays in the future as Q6 (M=.81; SD=.962) indicates.

Table 2. Means and SD of Chinese College Students' Attitudes toward ChatGPT's AWCF.

Question	M	SD	
2. ChatGPT found more errors in the sample essay than	.89	.751	
me.	.67	./31	
3. I understood the error corrections ChatGPT made to	1.30	.465	
the sample essay.	1.50	.403	
4. I think ChatGPT's corrections are helpful to the sam-	1.26	.656	
ple essay.	1.20		
5. By reading the feedback from ChatGPT on the sample			
essay, I have learned at least one new English writing	1.15	.534	
rule.			
6. I am planning on using ChatGPT for the correction of	.81 .962		
errors in my English essays.	.01	.902	

The Wilcoxon rank test in R was performed to test if the attitude of Chinese college students toward ChatGPT's AWCF is positive. As Table 3 shows, the p-values of the test from Q2-Q6 are as follows: 4.532277e-05, 1.052971e-06, 3.730789e-06, 2.004058e-06, and

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6.013031e-04. With multiple corrections being performed, the significance level is changed from 0.05 to 0.01, from which we can conclude that the overall attitude of Chinese college students toward ChatGPT's AWCF is significantly positive whether the participants have previously used ChatGPT or not to learn English. That is, those who have never used ChatGPT are motivated to try it to learn English in the future. Therefore, we can conclude that previous experience with ChatGPT cannot predict students' attitudes toward the AWCF from it.

Table 3. Chinese College Students' Attitudes toward ChatGPT's AWCF.

Question	P-Value
2. ChatGPT finds more errors in the sample	4.532277e-05
essay then me.	4.5322776-05
3. I understood the error corrections	1.052971e-06
ChatGPT made to the sample essay.	1.03277 16-00
4. I think ChatGPT's corrections are helpful	3.730789e-06
to the sample essay.	3.7307696-00
5. By reading the feedback from ChatGPT	2.004058e-06
on the sample essay, I have learned one new	2.0040386-00
English writing rule.	
6. I'm planning on using ChatGPT for the	6.013031e-04
correction of errors in my English essays.	0.013031e-04

The same statistical analysis was performed to test if any significant differences existed between the participants with and without any ChatGPT experience.

Table 4. Chinese College Students' Attitudes toward ChatGPT's AWCF: Group Differences.

Question	P-Value
2. ChatGPT finds more errors in the sample	.298
essay than me.	.298
3. I understood the error corrections	.143
ChatGPT made to the sample essay.	.143
4. I think ChatGPT's corrections are helpful	.562
to the sample essay.	.502
5. By reading the feedback from ChatGPT	.156
on the sample essay, I have learned one new	.130
English writing rule.	
6. I'm planning on using ChatGPT for the	.130
correction of errors in my English essays.	.130

Table 4 shows that the p-values from Q2-Q6 are 0.298, 0.143, 0.562, 0.156, and 0.130, indicating that there are no significant attitude differences between the two groups. In other words, the participants who have never used ChatGPT to learn English view ChatGPT's AWCF positively like their counterparts.

#### 3.1.7. Limitations

First, all the participants in this study were intermediate low as estimated whereas students at other English proficiency levels were not considered. As Li et al. (2017) pointed out, students with higher or lower proficiency can benefit from AWCF the most. Second, the chosen prompt for ChatGPT may have affected the quality of its AWCF, which may have accordingly influenced the participants' attitudes toward ChatGPT and its AWCF in general. According to Ibrahim (2023), different ChatGPT prompts can lead to diverse out-

puts; thus, it is vital to compose proper ChatGPT prompts to generate high-quality outputs. Third, the study conducted a pilot survey involving a limited number of participants. Further studies are needed to address such limitations.

#### 4. Conclusions and Recommendations

ChatGPT has been popular all over the world since its advent. As an AI tool, its potential to be an AWE system has attracted a significant amount of attention. Numerous studies have explored its effectiveness in helping students improve their L2 writing, yet controversies persist due to its powerful generative capabilities. This pilot study explored Chinese college students' attitudes toward ChatGPT's AWCF. Below are some conclusions drawn from the study and recommendations for integrating ChatGPT into College English writing in China.

#### 4.1. Conclusions

Survey results showed that the participants held overall positive attitudes toward ChatGPT and its feedback. The three hypotheses have been largely confirmed by the survey results. Although not all the participants agreed that ChatGPT found more errors than themselves, it cannot be denied that ChatGPT performed well in correcting errors in the sample essay as most participants thought ChatGPT's AWCF was helpful to the sample essay. It is worth noting that no significant differences in attitudes were found between the participants with and without ChatGPT experience, indicating that previous access to ChatGPT has not influenced their attitudes toward it. Interestingly, although most participants think highly of ChatGPT, they differ widely in their willingness to use it to learn English in the future.

#### 4.2. Recommendations

The study has some pedagogical implications for English educators, especially for college English educators in China. Given the participants' positive attitudes toward ChatGPT's AWCF, it is worth trying to use it to support Chinese college students in writing English essays. For example, English teachers may assign writing tasks and ask students to finish their first drafts by themselves. The students are then allowed to seek AWCF from ChatGPT, but they should be required to document all assistance from ChatGPT.

However, ChatGPT's AWCF should be used in addition to other feedback, such as teachers' feedback and peer feedback. Teachers' feedback and peer evaluations are needed especially when ChatGPT's AWCF confuses students. A combination of feedback sources can be more effective in improving students' English writing.

In the meantime, educators should pay more attention to ethical and plagiarism issues caused by ChatGPT. ChatGPT is trained by users as time goes by; it possibly offers suggestions or evidence with bias exerted by human beings. Hence, it is urgent and significant to develop students' critical thinking about ChatGPT's AWCF. Moreover, guidelines and policies should be in place to maintain academic integrity.

# Appendix A: A Sample Essay

My most unforgettable person is my grandfather. He is a farmer, he has a tall man, he has a strong body, and he is a serious man. He passed away a few years ago. When grandpa is not sick, I could with my brother get up early go to field follow my grandfather. I remember that the air was fresh that day, Birds are also Shouting happily. My brother and I are very happy. Grandpa walked slowly in front of us. But good times don't long, Grandpa suddenly fell ill, and his body suddenly became thin. He eat a lot of medicine, but he didn't get well, Even don't talk that. Finally, He leave for us forever. Up to this day, I still miss him very much.

# Appendix B: ChatGPT's AWCF on the Sample Essay

ChatGPT's Output

"My most unforgettable person is my grandfather. He is a farmer, he has a tall man, he has a strong body, and he is a serious man."

#### Errors:

- 1. The second sentence lacks a subject.
- 2. "He has a tall man" is unclear; it should be "He is a tall man."
- 3. The series of phrases are not well-connected. Consider combining them for better flow.

#### Revised:

"My most unforgettable person is my grandfather. He was a farmer, a tall and strong man, and a serious individual."

错误:

- 1. 第二句缺少主语。
- 2. "他有一个高大的男人"不清楚;应改为"他是一个高大的男人"。
- 3. 这一系列的短语连接不够紧密。考虑将它们结合起来以提高连贯性。

"When grandpa is not sick, I could with my brother get up early go to field follow my grandfather. I remember that the air was fresh that day, Birds are also Shouting happily. My brother and I are very happy. Grandpa walked slowly in front of us."

#### **Errors**:

- 1. The tense is inconsistent in the first sentence; it should be "When grandpa was not sick."  $\,$
- 2. The phrase "I could with my brother get up early go to field follow my grandfather" is unclear and should be revised for clarity.
  - 3. The second sentence lacks a clear subject.
  - 4. "Birds are also Shouting happily" should be "Birds were also chirping happily."
- 5. The last sentence needs a conjunction or transition to connect it more smoothly to the previous sentences.

#### Revised:

"When grandpa was not sick, my brother and I would wake up early to go to the field and follow our grandfather. I remember that the air was fresh that day, and birds were chirping happily. My brother and I were very happy as Grandpa walked slowly in front of us."

#### 错误:

- 1. 第一句时态不一致;应改为"当爷爷没生病的时候"。
- 2. "I could with my brother get up early go to field follow my grandfather" 这一短语不清楚,应进行修改以增强清晰度。
  - 3. 第二句缺少明确的主语。
  - 4. "Birds are also Shouting happily"应改为"鸟儿也在愉快地叫着"。
  - 5. 最后一句需要一个连接词或过渡词,以更顺畅地与前面的句子连接。

"But good times don't long, Grandpa suddenly fell ill, and his body suddenly became thin. He eat a lot of medicine, but he didn't get well, Even don't talk that. Finally, He leave for us forever."

#### Errors:

- 1. "But good times don't long" should be "But good times don't last long."
- 2. "He eat a lot of medicine" should be "He took a lot of medicine."
- 3. "Even don't talk that" is unclear and should be revised for clarity.
- 4. "He leave for us forever" should be "He left us forever."

#### Revised:

"But good times don't last long. Grandpa suddenly fell ill, and his body quickly became thin. He took a lot of medicine, but he didn't recover, he couldn't even talk. Finally, he left us forever."

错误:

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- 1. "But good times don't long" 应改为"But good times don't last long"。
- 2. "He eat a lot of medicine" 应改为"He took a lot of medicine"。
- 3. "Even don't talk that"不清楚,应进行修改以增强清晰度。
- 4. "He leave for us forever"应改为"He left us forever"。

"Up to this day, I still miss him very much."

No errors found.

无错误。

# Appendix C: Survey

Chinese College Students' Attitudes toward ChatGPT's Automated Written Corrective Feedback on English Essays

中国大学生对 ChatGPT 就英语作文给出自动批阅反馈的态度

You can choose only one answer for each question. (每个问题你仅能选择一个答案。)

Have you used ChatGPT to learn English?

(你曾经使用过 ChatGPT 学习英语吗?)

Yes 是

No 否

ChatGPT found more errors in the sample essay than me.

(ChatGPT 在样本文章中找出的错误比我多。)

OStrongly disagree (非常不赞同)

○Disagree (不赞同)

○Undecided (不确定)

○Agree (赞同)

OStrongly Agree (非常赞同)

I understood the error corrections ChatGPT made to the sample essay.

(我理解 ChatGPT 对样本文章的错误修订。)

○Strongly disagree (非常不赞同)

○Disagree (不赞同)

○Undecided (不确定)

○Agree (赞同)

OStrongly Agree (非常赞同)

I think ChatGPT's corrections are helpful to the sample essay.

(我认为 ChatGPT 对样本文章的错误修订对其有帮助。)

○Strongly disagree (非常不赞同)

ODisagree (不赞同)

○Undecided (不确定)

○Agree (赞同)

○Strongly Agree (非常赞同)

By reading the feedback from ChatGPT on the sample essay, I have learned at least one new English writing rule.

(通过阅读 ChatGPT 对样本文章的反馈,我至少学到了一条新的英语写作规则。)

○Strongly disagree (非常不赞同)

○Disagree (不赞同)

○Undecided (不确定)

○Agree (赞同)

○Strongly Agree (非常赞同)

I am planning on using ChatGPT for the correction of errors in my English essays. (我打算使用 ChatGPT 对我的英语文章进行错误修订。)

○Strongly disagree (非常不赞同)

○Disagree (不赞同)

○Undecided (不确定)

# ○Agree (赞同) ○Strongly Agree (非常赞同)

#### References

- 1. Bai, L. F., & Hu, G. W. (2017). In the face of fallible AWE feedback: How do students respond? *Educational Psychology*, *37*(1), 67-81. <a href="http://dx.doi.org/10.1080/01443410.2016.1223275">http://dx.doi.org/10.1080/01443410.2016.1223275</a>
- 2. Barrot, J. S. (2023). Using ChatGPT for second language writing: Pitfalls and potentials. Assessing Writing, 57, 100745. https://doi.org/10.1016/j.asw.2023.100745
- 3. Baskara, F. R. (2023). Integrating ChatGPT into EFL writing instruction: Benefits and challenges. International Journal of Education and Learning, 5(1), 44-55. DOI:10.31763/ijele.v5i1.858
- 4. Burstein, J., Chodorow, M., & Leacock, C. (2004). Automated essay evaluation: The Criterion online writing service. AI Magazine, 25(3), 27-36. https://doi.org/10.1609/aimag.v25i3.1774
- 5. Chen, C. F., & Cheng, W. Y. (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. http://llt.msu.edu/vol12num2/chencheng/
- Chung, G., & O'Neill, H. (1997). Methodological approaches to online scoring of essays. UCLA. National Center for Research on Evaluation, Student Standards, and Testing. https://files.eric.ed.gov/fulltext/ED418101.pdf
- 7. Dewi, U. (2022). Grammarly as automated writing evaluation: Its effectiveness from EFL students' perceptions. Lingua Cultura, 16(2), 155-161. https://doi.org/10.21512/lc.v16i2.8315
- 8. Du, X. Q. (2022). 在线评分系统提升大学生英语写作能力的行动研究——以句酷批改网为例 [An action research on the enhancement of college students' English writing ability through online scoring systems Using Pigai as an example]. Journal of Suzhou Education Institute, 25(3), 41-48. DOI: 10.13985/j.cnki.34-1227/c.2022.03.004
- 9. Guo, Q., Feng, R. L., & Hua, Y. F. (2023). ChatGPT 在英语学术论文写作与教学中的应用及潜在问题 [The application and potential problems of ChatGPT in English academic writing and teaching]. Technology Enhanced Teaching Languages, 35(9), 18-23+107.
- 10. DOI: 10.1080/09588221.2021.1879161
- 11. Haleem, A., Javaid, M., & Singh, R. P. (2022). An era of ChatGPT as a significant futuristic support tool: A study on features, abilities, and challenges. BenchCouncil Transactions on Benchmarks, Standards and Evaluations, 2(4), 100089. https://doi.org/10.1016/j.tbench.2023.100089
- 12. Ibrahim, J. (2023). The art of asking ChatGPT for high-quality answers: A complete guide to prompt engineering techniques. Nzunda Technologies Limited. https://www.studocu.com/fr-ca/document/college-universitaire-dominicain/cell-and-developmental-biology/the-art-of-asking-chat-gpt-for-high-quality-answers-a-complete-guide-to-prompt-engineering-techniques-ibrahim-john-z-library/67134741
- 13. Huang, J., & Zhang, W. X. (2014). 多元反馈对大学生英语作文修改的影响研究 [A study on the influence of multifaceted feedback on college students' English essay revision]. Foreign Languages in China, 11(01), 51-56. DOI:10.13564/j.cnki.issn.1672-9382.2014.01.011
- 14. Kasneci, E., Seßler, K., Küchemann, S., Bannert, M., Dementieva, D., Fischer, F., & Kasneci, G. (2023). ChatGPT for good? On opportunities and challenges of large language models for education. Learning and Individual Differences, 103, 102274. https://doi.org/10.1016/j.lindif.2023.102274
- 15. Keh, C. L. (1990). Feedback in the writing process: A model and methods for implementation. ELT Journal, 44(4), 294-304. https://doi.org/10.1093/elt/44.4.294
- 16. Lee, C., Wong, K., Cheung, W., & Lee, F. (2009). Web-based essay critiquing system and EFL students' writing: A quantitative and qualitative investigation. Computer Assisted Language Learning, 22(1), 57–72. DOI: 10.1080/09588220802613807
- 17. Li, Z., Feng, H. H., & Saricaoglu, A. (2017). The short-term and long-term effects of AWE feedback on ESL students' development of grammatical accuracy. CALLCO Journal, 34(3), 355-375. https://doi.org/10.1558/cj.26382
- 18. Lin, H. Y. (2017). 教师反馈与基于句酷批改网的自动反馈对大学生英语写作影响的对比研究 [Comparative research on the impact between feedback from teachers and automated feedback from Pigai System for college students' English writing]. [Master's thesis, Shaanxi Normal University]. www.cnki.net
- 19. Onozawa, C. (2010). A study of the process writing approach. Research Note, 10, 153-163. https://core.ac.uk/download/pdf/141876629.pdf
- 20. Peng, X. L. (2019).基于句酷批改网的高中英语写作纠错反馈研究——以厦门市翔安第一中学为例 [A study on error correction feedback in high school English writing based on Pigai A case study of Xiamen Xiang'an No.1 High School]. [Master's thesis, Fujian Normal University]. www.cnki.net
- 21. Powers, D. E., Burstein, J. C., Chodorow, M., Fowles, M. E., & Kukich, K. (2002). Stumping e-rater: Challenging the validity of automated essay scoring. Computers in Human Behavior, 18(2), 103-134. https://doi.org/10.1016/S0747-5632(01)00052-8
- 22. Qi, J. (2023). 人工智能视域下应用型院校英语写作多元反馈模式构建——基于 iWrite2.0 写作自动评阅系统的实证研究 [Constructing a multifaceted feedback model for English writing in applied colleges from the perspective of artificial intelligence: An empirical study based on the iWrite2.0 automated writing evaluation system]. Journal of Yuncheng University, 41(6), 71-77. DOI: 10.15967/j.cnki.cn14-1316/g4.2023.06.010

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23. Ranalli, J. (2018). Automated written corrective feedback: How well can students make use of it? Computer Assisted Language Learning, 31(7), 653–674. https://doi.org/10.1080/09588221.2018.1428994

- 24. Ranalli, J., Lin, S., & Chukharev-Hudilainen, E. (2017). Automated writing evaluation for formative assessment of second language writing: Investigating the accuracy and usefulness of feedback as part of argument-based validation. Educational Psychology, 37(1), 8-25. DOI: 10.1080/01443410.2015.1136407
- 25. Reynolds, K. M., Dikilitas, K., & Close, S. (2021). Introduction to TESOL: Becoming a language teaching professional. John Wiley & Sons.
- Roumeliotis, K. I., & Tselikas, N. D. (2023). ChatGPT and Open-AI models: A preliminary review. Future Internet, 15(6), 192. https://doi.org/10.3390/fi15060192
- 27. Seow, A. (2002). The Writing Process and Process Writing. (C. R. Jack, A. R. Willy, Ed.). Cambridge University Press. https://doi.org/10.1017/CBO9780511667190.044
- 28. Shen, Y. Q., Heacock, L., Elias, J., Beatriu Reig, K. D. H., Shih, G., & Moy, L. (2023). ChatGPT and other large language models are double-edged swords. Radiology, 307(2). https://doi.org/10.1148/radiol.230163
- 29. Spencer, B., & Louw, H. (2008). A practice-based evaluation of an on-line writing evaluation system: First-World technology in a Third-World teaching context. Language Matters, 39(1), 111-125. https://doi.org/10.1080/10228190802321061
- 30. Stapa, S. H. & Abdul-Majid, A. H. (2009). The use of first language in developing ideas in second language writing. The European Journal of Social Sciences, 7(4), 41-47. www.ajsih.org
- 31. Storch, N. (2010). Critical feedback on written corrective feedback research. International Journal of English Studies, 10, 29-46. DOI: https://doi.org/10.6018/ijes/2010/2/119181
- 32. Su, Y. F., Lin, Y., & Lai, C. (2023). Collaborating with ChatGPT in argumentative writing classrooms. Assessing Writing, 57, 100752. https://doi.org/10.1016/j.asw.2023.100752
- 33. Wang, W. (2018). 句酷批改网在大学英语写作教学中的可行性研究——以西南财经大学天府学院为例 [A feasibility study of Pigai in college English writing teaching Taking Tianfu college of Southwestern University of Finance and Economics as an example]. Education Modernization, 5(06), 329-339. DOI:10.16541/j.cnki.2095-8420.2018.06.116
- 34. Woodworth, J., & Barkaoui, K. (2020). Perspectives on using automated writing evaluation systems to provide written corrective feedback in the ESL classroom. TESL Canada Journal, 37 (2), 234-247. https://doi.org/10.18806/tesl.v37i2.1340
- 35. Wu, H., Wang, W., Wan, Y., Jiao, W., & Lyu, M. (2023). ChatGPT or Grammarly? Evaluating ChatGPT on grammatical error correction benchmark. arXiv:2304.01746. https://doi.org/10.48550/arXiv.2303.13648
- 36. Yan, D. (2023). Impact of ChatGPT on learners in a L2 writing practicum: An exploratory investigation. Education and Information Technologies, 28, 13943-13967. https://doi.org/10.1007/s10639-023-11742-4
- 37. Zhang, J. J. (2020). 基于自动批改系统反馈的大学生英语写作修改行为研究 [A study on college students' English writing revision behavior based on feedback from an automated correction system]. [Master's thesis, Beijing University of Press and Telecommunications]. www.cnki.net
- 38. Zhang, Z. V. (2019). Engaging with automated writing evaluation (AWE) feedback on L2 writing: Student perceptions and revisions. Accessing Writing, 43, 100439. <a href="https://doi.org/10.1016/j.asw.2019.100439">https://doi.org/10.1016/j.asw.2019.100439</a>

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