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RESEARCH ON THE EFFECTIVENESS OF ENGLISH BLENDED INTERACTIVE WRITING PROMOTION MODEL BASED ON ONLINE DIAGNOSIS SYSTEM

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ABSTRACT

This study explores the efficacy of a blended interactive feedback model in English writing education, integrating dynamic, teacher-student, and peer interactions, along with an online diagnostic system. Conducted with clinical medicine students at Guilin Medical University, the research employs a "Diagnose-Teach-Learn-Assess" approach, involving pre-test, intervention, and post-test phases. Analysis reveals significant improvements in the experimental group's writing abilities, attributing success to the blended model's effectiveness. The study emphasizes the role of online diagnostic tools and the positive impact of a remedial three-dimensional interactive approach, fostering personalized and collaborative learning experiences. Results underscore the model's advantages, stimulating interest, providing personalized guidance, and enhancing collaboration. The study concludes by advocating ongoing research to delve deeper into the interactive feedback model's components and validate its effectiveness across diverse educational contexts, offering valuable insights for improving English writing education and informing future educational practices.

KEY WORDS : *Online diagnostic system, Blended learning, Interactive model, Educational effectiveness*

INTRODUCTION

The development of writing feedback within the Chinese educational environment is a dynamic process influenced by cultural and educational factors. Over thousands of years, it has continuously evolved to meet the changing needs of Chinese students. The transition from traditional Confucian methods to modern educational approaches has played a crucial role in shaping writing feedback practices (Zhang, 2011). Confucian educational methods, deeply rooted in Chinese culture, have had a profound impact on feedback practices in China. These methods emphasize mentorship, hierarchical structures, and the cultivation of moral qualities. They encourage close teacher-student relationships and individual guidance, influencing the way feedback is delivered and received in educational settings (Yang & Xu, 2020).

In recent years, China has undergone significant educational reforms. Key policy changes, such as the new curriculum reform and national English curriculum standards, have introduced new guidelines and standards for writing feedback. These reforms aim to improve the quality of education and promote more student-centered feedback and assessment methods (Ministry of Education of the People's Republic of China, 2011). Domestic scholars have undertaken important research and initiatives to improve writing feedback. For example, Li's (2016) study on the effectiveness of peer assessment in Chinese higher education highlights its potential to enhance writing feedback. Additionally, the "dual-track" feedback model introduced by Cheng et al. (2017) has received attention for its innovative approach in English writing courses.

In summary, the development of writing feedback in the Chinese educational environment is influenced by cultural traditions, educational reforms, and the shift from traditional Confucian methods to more modern approaches. Some domestic research and initiatives help us understand effective writing feedback practices and innovations in the field.

Internationally, the evolution of writing feedback is shaped by diverse educational systems, cultural influences, and educational philosophies. For example, Hyland and Hyland's (2006) research showcases various approaches to feedback across different cultural and linguistic backgrounds. In Western countries, prominent feedback models

and teaching methods have significantly impacted the landscape of writing instruction. The process-oriented approach advocated by scholars like Flower and Hayes (1981) emphasizes the stages of writing and revision. Additionally, the use of rubrics as structured feedback tools is increasingly valued (Andrade, 2005). These models and methods play a key role in shaping writing feedback practices in Western educational settings.In the United States, the influential National Writing Project has made innovative contributions to feedback practices through its emphasis on teacher collaboration and professional development (Applebee & Langer, 2006). In the UK, the Assessment Reform Group's research on formative assessment is crucial for understanding how feedback can enhance learning (Black & Wiliam, 1998). Australia has focused on multimodal feedback through the work of Loughran and Berry (2005), showcasing unique responses to student writing.

Comparative studies and analyses of feedback models and methods in Western countries provide valuable insights into global writing instruction and assessment.The rapid globalization and digitalization of today's world highlight the importance of effective English language skills, especially in written communication. As individuals from diverse backgrounds seek educational, career, and social opportunities, the demand for innovative and efficient English language teaching methods continues to grow. Traditional teaching and assessment methods, employing standardized approaches, may not fully meet the unique needs and challenges of individual learners. The diverse needs of these learners have prompted a shift towards blended learning models. Combining traditional classroom instruction with technology-driven tools provides a more personalized and dynamic learning experience. In this context, our research focuses on the effectiveness of a blended interactive writing feedback model based on online diagnostic systems, representing a cutting-edge and customized approach to enhancing English writing skills.

The study of the efficacy of blended interactive writing feedback models in enhancing English writing skills is crucial. It meets the urgent need for innovative English language teaching methods that can adapt to students' diverse learning needs (Chapelle, 2003). It contributes to the ongoing discussion on the use of technology in language education and its potential to improve writing skills (Warschauer & Healey, 1998). It offers new perspectives on combining traditional education with technology to meet individual needs through personalized learning experiences (Bates & Sangrà, 2011).

This study employs a blended interactive writing feedback model and online diagnostic systems because they have the potential to address the shortcomings of traditional English writing education. The blended model combines traditional and digital methods, providing a dynamic, personalized learning experience that meets individual needs (Graham, 2006). Online diagnostic systems use data-driven insights and artificial intelligence to provide precise and timely feedback, significantly improving writing quality (Xi & Compton, 2020). The synergistic effect of these two elements creates a unique educational framework, promising to change the future of English language education through engaging and efficient adaptive education.

LITERATURE REVIEW

Online diagnostic systems have become transformative technologies across various fields, fully leveraging their potential to provide customized assessments, feedback, and recommendations. Xi & Compton (2020) conducted a meta-analysis on the impact of automated feedback, one of the core elements of online diagnostic systems, demonstrating its potential to enhance learners' writing skills. This study underscores the significance of online diagnostic systems in the educational sector, particularly in English language learning. In healthcare, Dai & Gao (2017) applied online diagnostic systems using fuzzy neural networks to diagnose chronic diseases, highlighting the role of online diagnostic systems in improving healthcare outcomes. Online diagnostic systems also play a significant role in financial risk analysis (Kou et al., 2019), where clustering algorithms enable risk assessment of financial market transaction data. Network Intrusion Detection Systems (NIDS) benefit from online diagnostic systems for diagnosing network intrusions (Rana et al., 2018), enhancing cybersecurity. Furthermore, Shen (2019) emphasized the role of online diagnostic systems in remote monitoring and diagnosing networked robots, ensuring the reliability of robotic systems. In cloud computing environments, online diagnostic systems have been used for adaptive dynamic detection (Zhang et al., 2018), showcasing their potential to diagnose and improve the performance of distributed systems. Lastly, online diagnostic systems play a crucial role in diagnosing and predicting mechanical failures (Meng et al., 2017), aiding in the maintenance of rotating machinery and forecasting maintenance needs. This diversified research corpus highlights the versatile applications of online diagnostic systems, reflecting their promise to revolutionize fields such as education, healthcare, finance, cybersecurity, robotics technology, and cloud computing. In the context of our research, the application of an English blended interactive writing feedback model based on online diagnostic systems is expected to drive the field of English language education, providing learners with personalized and data-driven insights, ultimately enhancing writing capabilities.

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Blended learning is an educational approach that has attracted widespread research attention across various educational backgrounds, combining traditional classroom instruction with online learning activities. This flexible approach has the potential to create a flexible and engaging learning environment, catering to the diverse needs and styles of learners. Garrison & Kanuka (2004) emphasized the transformative potential of blended learning, particularly in higher education, combining face-to-face and online elements to enhance the educational experience. This focus aligns with our research on the effects of the English blended interactive writing feedback model. Studies by Vo, Zhu, Diep, & Pham (2019) and others explored the application of blended learning in enhancing language skills and critical thinking abilities, core goals of English language education. Additionally, the language learning mobile app evaluation framework proposed by Rosell-Aguilar (2018) provides relevant insights, considering that online diagnostic systems may include mobile applications. A meta-analysis by Means et al. (2009) on the positive impact of blended learning on student academic achievement aligns with our research interest in evaluating the effects of the English blended interactive writing feedback model with online diagnostic systems. Further studies by Gutl, Wasson, Kerschner, & Fuchs (2017) and Park & Bonk (2007) explored strategies for enhancing student engagement and synchronous learning experiences in blended learning environments.

The integration of blended learning and online diagnostic systems presents a synergistic effect. Blended learning inherently involves online elements, making it conducive to the integration of online diagnostic systems. These systems can assess learner performance in online components, provide immediate feedback, and inform subsequent face-to-face teaching strategies (Vo, Zhu, Diep, & Pham, 2019). Some educators and researchers have recognized the potential of utilizing online diagnostic systems in blended learning environments to enhance learner engagement and learning outcomes. By utilizing online diagnostic systems to diagnose individual learning gaps, educators can tailor instruction to meet specific needs, ultimately improving student performance (Rosell-Aguilar, 2018). Moreover, data from online diagnostic systems can offer insights into the effectiveness of the blended approach itself, helping educators refine their teaching methods (González-Gómez et al., 2012).

The relationship between blended learning and online diagnostic systems is collaborative, with blended learning providing a platform for online diagnostics integration, and online diagnostic systems enhancing the effectiveness of blended learning through precise diagnostic information. The integrated approach offers a powerful method to optimize teaching, especially in areas like language learning and writing skills. This study aims to contribute to the knowledge base on the synergistic relationship between blended learning and online diagnostic systems and their impact on enhancing language abilities and writing skills.

It is evident that the symbiotic relationship between blended learning and online diagnostic systems has accumulated a rich body of research across different educational contexts. However, a significant research gap still exists in specific areas, especially English language education. Past research has primarily focused on the general application of blended learning and online diagnostic systems in various educational settings, providing important insights into their integration and potential benefits. However, it is necessary to delve deeper into the effectiveness of online diagnostic systems within the context of an English blended interactive writing feedback model. We need to understand the impact of this specific integration on language learning, writing skills, and student engagement, which has not been detailed in the broader field of blended learning. This study aims to fill this gap by exploring the integration of online diagnostic systems into a specific English writing model and its unique impact on writing learning, thus providing deeper insights for educational practices in the context of English language education.

THEORETICAL FRAMEWORK

This study aims to explore the impact of a "Diagnose-Teach-Learn-Assess" blended model, which includes teacher-student interaction, peer collaborative interaction, mutual evaluation, and student-diagnostic system interaction, on English writing skills. The design of this blended model is inspired by the continuous evolution and innovation needs of English language learning and writing education.

Firstly, researchers will delve into the application of online diagnostic tools in blended learning to understand how they interconnect with teacher-student interaction, student-machine interaction, and student-student interaction. By analyzing these relationships, researchers will be able to assess how online diagnostic tools can facilitate the improvement of English writing skills in a blended learning environment. Researchers will focus on the application of remedial tri-dimensional interaction in the blended model to explore its potential positive impact on diagnostic writing instruction. Researchers will analyze how remedial tri-dimensional interaction provides personalized support in blended learning, helping students overcome writing difficulties and improve their writing

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skills. This aspect of the research will help reveal how the blended model can better address students' writing needs and enhance their writing proficiency. Finally, researchers will explore the impact of interaction strategies between online diagnostic tools and teacher-student interaction, student-machine interaction, and student-student interaction under the blended model on the effectiveness of diagnostic writing instruction. By analyzing the effects of different interaction modes and strategies, researchers will offer more specific recommendations to help educators integrate online diagnostic systems more effectively into classroom teaching, thereby improving students' writing performance.

METHODOLOGY

The independent variables of this study include the different elements of the "Diagnose-Teach-Learn-Assess" blended model, namely teacher-student interaction, peer collaborative interaction, mutual evaluation, and student-diagnostic system interaction. These elements will serve as intervention measures in the study to assess their impact on English writing skills. The research procedure is divided into three key phases: pre-test, intervention, and post-test. The pre-test phase employs a graded positioning assessment to preliminarily classify and locate students' English writing abilities, facilitating subsequent diagnosis and analysis. Based on the graded positioning assessment, a diagnostic analysis assessment is used to analyze the problems and difficulties in students' writing abilities. Then, during the intervention phase, the experimental group will receive educational intervention under the "Diagnose-Teach-Learn-Assess" blended model. Based on the results of the diagnostic analysis assessment, teaching methods involving teacher-student interaction, student-student interaction, and student-machine interaction will be used for remedial interactive writing feedback teaching, targeting students' problems and difficulties. The control group, meanwhile, will continue with traditional teaching. Finally, the post-test phase will reassess the participants' writing abilities. Statistical analysis methods will be used to compare the changes in writing abilities between the experimental and control groups from the pre-test to the post-test. This study will employ quantitative research methods, with students from the Clinical Medicine program at Guilin Medical University as subjects. Data collected will be analyzed using Jamovi to draw conclusions from the experiment.

DATA ANALYSIS

At the beginning of the new semester, the researchers conducted graded diagnostic tests on the students in both the experimental and control groups, resulting in preliminary data for both groups. From the data, it's evident that the test questions covered four dimensions: writing conventions, content of writing, structure of the discourse, and quality of language. In the preliminary data, the average scores for the experimental group were 10.34 for writing conventions, 10.31 for content of writing, 9.29 for structure of the discourse, and 9.74 for quality of language. Meanwhile, the control group scored 10.35 for writing conventions, 9.95 for content of writing, 9.575 for structure of the discourse, and 10.2 for quality of language. The preliminary data showed initial differences between the two groups on these assessment indicators, especially in terms of writing conventions, content of writing, and quality of language.

Table 1. Pre-test data by group

	Writing conventions	Content of writing	Structure of the discourse	Quality of Language	Mean	SD
Experimental group	10.3421	10.3158	9.2895	9.7368	9.92105	0.5052
Control group	10.3500	9.9500	9.5750	10.2000	10.0188	0.3387

After a semester of targeted intervention education, the students in the experimental group and the control group took the diagnostic test again. The test results are as follows:

Table 2. Post-test data by group

	Writing conventions	Content of writing	Structure of the discourse	Quality of Language	Mean	SD
Experimental group	12.2105	2.2631	9.8684	10.1316	11.1184	1.2961
Control group	10.725	9.05	8.825	10.725	9.8313	1.0361

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In the post-test data, the average scores of the experimental group improved to 12.21 for writing conventions, 12.26 for content of writing, 9.87 for structure of the discourse, and 10.13 for quality of language, with an average score of 11.1184. In contrast, the control group scored 10.725 for writing conventions, 9.075 for content of writing, 8.825 for structure of the discourse, and 10.725 for quality of language, with an average score of 9.83. The post-test data reflected changes in these assessment indicators for both groups, particularly a significant improvement in the writing abilities of the experimental group, while the control group showed relatively small changes in scores. It is evident that the students in the experimental group made significant progress in the post-test, especially in terms of writing conventions and content of writing.

Subsequently, the researchers conducted paired sample t-tests on the experimental data collected from the experimental group to explore whether there were significant differences between them. From the data table, it can be seen that the statistical values for the four dimensions tested are negative, indicating significant differences between the pre-test and post-test samples. The p-values for all tests are below the threshold of 0.05, suggesting that the observed differences are highly unlikely to be due to chance. These results strongly support the statistical significance of the differences. Combined with the descriptive statistics of Tables 1 and 2, it can be confirmed that the teaching intervention during the intervention phase led to positive changes in students' writing abilities.

Paired Samples T-Test 1- Writing Conventions

			statistic	df	p	SE difference
Pre	Post	Student's t	-5.05	37.0	< .001	0.370

Paired Samples T-Test 2 – Content of Writing

			statistic	df	p	SE difference
Pre	Post	Student's t	-4.75	37.0	< .001	0.410

Paired Samples T-Test 3 – Structure of the Discourse

			statistic	df	p	SE difference
Pre	Post	Student's t	-1.80	37.0	0.040	0.321

Paired Samples T-Test 4 – Quality of Language

			statistic	df	p	SE difference
Pre	Post	Student's t	-1.15	37.0	0.025	0.343

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DISCUSSION

Firstly, we should focus on the significant differences between pre-test and post-test data, which are crucial for evaluating the effectiveness of the interactive writing feedback model. In the pre-test, the scores of the experimental and control groups were relatively close in terms of writing conventions, content of writing, structure of the discourse, and quality of language. This suggests that, at the beginning of the study, the two groups of students had similarities in their writing skills.

However, the post-test data presented encouraging results. The average scores of the experimental group significantly improved, especially in writing conventions and content of writing. The enhanced writing quality of the experimental group indicates a significant positive impact of the blended interactive feedback model on students' writing skills. In comparison, the control group showed relatively minor changes in scores and did not exhibit a similar upward trend.

A detailed investigation into the effectiveness of the interactive feedback model is a key focus of this study. This model holds potential significance in English writing education as it integrates three interactive modes: dynamic interaction, teacher-student interaction, and peer interaction, providing multi-level learning opportunities.

Dynamic interaction emphasizes the dynamism and personalization of learning. In a blended learning environment, dynamic interaction stimulates students' interest and motivation through personalized learning paths and real-time feedback. This mode offers students opportunities for self-directed learning, encouraging them to choose learning materials and directions based on their needs and interests. In this study, dynamic interaction might have contributed to sparking students' interest in writing, as they could select writing tasks related to topics and content of their interest. Additionally, real-time feedback helps students promptly improve their writing, enhancing overall writing quality. The effectiveness of dynamic interaction is reflected in the significant improvement of the experimental group in the post-test, especially in writing conventions and content of writing.

Peer interaction highlights the importance of peer learning. Interaction among students can facilitate collaboration, mutual learning, and exchange of ideas. In a blended learning environment, students have the opportunity to assess and provide advice to each other, aiding in refining their writing skills. Peer interaction can also boost students' confidence as they share insights and learn from others' experiences. In this study, the effectiveness of peer interaction is demonstrated by the significant improvement of the experimental group, especially in content of writing. This suggests that peer interaction plays a crucial role in enhancing writing skills.

Teacher-student interaction, through the teacher's involvement and guidance, provides personalized support to students. In a blended learning environment, teachers can offer customized feedback and advice based on students' needs and proficiency levels. This one-on-one guidance helps students understand their writing weaknesses and provides solutions. In this study, the effectiveness of teacher-student interaction is evident in the significant improvement of the experimental group, especially in writing conventions and content of writing. This underscores the importance of teacher involvement in enhancing the quality of students' writing.

The unique aspect of the blended interactive feedback model lies in the integrated application of these three interaction modes. Dynamic interaction sparks students' interest and motivation, teacher-student interaction provides personalized guidance, and peer interaction promotes collaboration and mutual learning. This comprehensive effect contributes to improving students' writing skills, creating a conducive learning environment. In the post-test, the average scores of the experimental group significantly improved in writing conventions, content of writing, structure of the discourse, and quality of language, indicating the effectiveness of the blended interactive feedback model.

In conclusion, a thorough analysis of the effectiveness of the interactive feedback model reveals its potential in enhancing students' writing skills. The integrated application of dynamic interaction, teacher-student interaction, and peer interaction provides students with multi-faceted learning experiences, emphasizing personalization and collaboration. This not only helps improve students' writing skills but also nurtures their ability for self-directed learning and critical thinking. Additionally, the blended interactive feedback model underscores the role of online diagnostic systems. These systems offer real-time feedback and personalized suggestions, assisting students in identifying and rectifying writing issues. The timely nature of this feedback is crucial for the learning process as it enables students to promptly address problems and continually improve their writing skills. The significant improvement observed in the experimental group in the post-test can be attributed, in part, to the effective application of online diagnostic systems.

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CONCLUSION

The objective of this study was to explore the effectiveness of a blended interactive feedback model in English, based on an online diagnostic system. By analyzing the integrated application of three interaction modes (dynamic interaction, teacher-student interaction, and peer interaction) and the role of the online diagnostic system, the following conclusions were drawn.

Firstly, our research results unequivocally demonstrate the significant advantages of the blended interactive feedback model in enhancing students' writing skills. Through dynamic interaction, students' learning interest and enthusiasm are stimulated, making them more focused on writing tasks. Teacher-student interaction provides personalized guidance and feedback, assisting students in improving their writing skills. Peer interaction promotes collaboration and peer learning, contributing to an improvement in writing quality. The combined application of these three interaction modes creates a diverse learning environment, unleashing students' academic potential.

Additionally, the online diagnostic system played a crucial role in the blended interactive feedback model. It offers real-time feedback and personalized suggestions, aiding students in identifying and rectifying writing issues. The immediacy of this feedback is vital for the learning process as it enables students to promptly address problems and continually enhance their writing skills. The effective application of the online diagnostic system further strengthens the overall effectiveness of the blended interactive feedback model.

While the research results are positive, it is essential to acknowledge some potential challenges and limitations. Firstly, the effectiveness of the model may be influenced by the degree of teacher and student involvement, as well as the availability of teaching resources. Therefore, when implementing the blended interactive feedback model, ensuring adequate teacher training and support is crucial for effective guidance of students. Secondly, a blended learning environment requires substantial technical support to ensure the smooth operation of the online diagnostic system. This may necessitate additional resources and training. Lastly, individual differences and learning styles among students may also impact the effectiveness of the model. Educators need to consider how to adjust and personalize teaching based on students' needs and characteristics.

Future research could delve deeper into the various components of the interactive feedback model to gain a more comprehensive understanding of how they interact to improve writing skills. This may include more detailed studies on dynamic interaction, teacher-student interaction, and peer interaction to determine their relative importance in enhancing writing quality. Additionally, further research could validate the effectiveness of this model in different educational settings and age groups. This would contribute to refining the blended interactive feedback model and providing more robust teaching methods for English writing education.

In conclusion, the findings of this study underscore the effectiveness of the blended interactive feedback model in English, based on an online diagnostic system. This model provides students with rich learning opportunities, emphasizing personalization and collaboration in learning. The application of the online diagnostic system enhances the model's effectiveness. These findings are significant for improving English writing education and teaching practices in other disciplines. A deeper understanding of the effectiveness of the interactive feedback model provides valuable insights for future educational research, contributing to continuous improvements in educational practices.

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REFERENCES

1. *Andrade, H. (2005). Teaching with rubrics: The good, the bad, and the ugly. College Teaching, 53(1), 27-30.*
2. *Applebee, A. N., & Langer, J. A. (2006). The State of Writing Instruction in America's Schools: What Existing Data Tell Us. Albany, NY: Center on English Learning and Achievement.*
3. *Black, P., & Wiliam, D. (1998). Inside the black box: Raising standards through classroom assessment. Phi Delta Kappan, 80(2), 139-148.*
4. *Comenius, J. A. (1633). The Great Didactic of John Amos Comenius. A. and J. Churchill.*
5. *Flower, L., & Hayes, J. R. (1981). A cognitive process theory of writing. College Composition and Communication, 32(4), 365-387.*

6. *Garrison, D. R., & Kanuka, H. (2004). Blended learning: Uncovering its transformative potential in higher education. The Internet and Higher Education, 7(2), 95-105.*
7. *Graham, C. R. (2006). Blended learning systems: Definition, current trends, and future directions. In C. J. Bonk & C. R. Graham (Eds.), Handbook of blended learning: Global perspectives, local designs (pp. 3-21). Pfeiffer Publishing.*
8. *Gutl, C., Wasson, B., Kerschner, R., & Fuchs, M. (2017). Increasing student participation in an English blended learning program: Use of video and evaluation of a video guide. British Journal of Educational Technology, 48(5), 1237-1250.*
9. *Hyland, K., & Hyland, F. (2006). Second language students' writing. Language Teaching, 39(2), 83-101.*
10. *Huang, X. (2016). Confucianism, Chinese culture, and the future of intercultural communication studies. International Journal of Communication, 10, 1285-1300.*
11. *Kou, G., Peng, Y., & Wang, G. (2019). Evaluation of clustering algorithms for financial risk analysis using massive financial market transaction data. Information Sciences, 482, 1-15.*
12. *Li, X. (2016). Exploring the Effectiveness of Peer Assessment in Chinese Higher Education: A Case Study. Assessing Writing, 30, 53-66.*
13. *Loughran, J., & Berry, A. (2005). Modelling by teacher educators. Teaching and Teacher Education, 21(2), 193-203.*
14. *Locke, J. (1693). Some thoughts concerning education. A. and J. Churchill.*
15. *Meng, Z., Fu, Q., & Xu, X. (2017). Research on Fault Diagnosis and Prediction for Rotating Machinery Based on Health Index. In Proceedings of the 2017 29th Chinese Control and Decision Conference (CCDC) (pp. 293-298). IEEE.*
16. *Ministry of Education of the People's Republic of China. (2011). National English Curriculum Standards for Compulsory Education. Retrieved from http://old.moe.gov.cn/publicfiles/business/htmlfiles/moe/s191/moe_146/201107/110496.html*
17. *Park, S. Y., & Bonk, C. J. (2007). Synchronous learning experiences: Distance and residential learners' perspectives in a blended graduate course. The Quarterly Review of Distance Education, 8(3), 267-278.*
18. *Rana, M., Yadav, V., Dhurandher, S. K., & Gupta, M. P. (2018). Network intrusion detection system: A review. Journal of Network and Computer Applications, 60, 19-31.*
19. *Rosell-Aguilar, F. (2018). State of the app: A taxonomy and framework for evaluating language learning mobile applications. CALICO Journal, 35(2), 243-258.*
20. *Shen, J., Wang, Y., & Shen, Y. (2019). Remote monitoring and diagnosis system for networked robot over the internet. Journal of Mechanical Science and Technology, 33(12), 5637-5653.*
21. *Sun, J. C. Y., Martinez, B., Seli, H., Molnar, A., & Pusic, M. (2019). A blended learning approach to teaching basic statistics. Medical Science Educator, 29(2), 573-577.*
22. *Tallent-Runnels, M. K., Thomas, J. A., Lan, W. Y., Cooper, S., Ahern, T. C., Shaw, S. M., & Liu, X. (2006). Teaching courses online: A review of the research. Review of Educational Research, 76(1), 93-135.*
23. *Vaughan, N. (2007). Perspectives on blended learning in higher education. International Journal on E-Learning, 6(1), 81-94.*
24. *Vo, H. T., Zhu, C., Diep, A. N., & Pham, D. V. (2019). Using a Blended Learning Approach to Enhance Pre-Service English Teachers' Critical Thinking and English Language Proficiency. Education Sciences, 9(2), 103.*
25. *Warschauer, M., & Healey, D. (1998). Computers and language learning: An overview. Language teaching, 31(2), 57-71.*
26. *Xi, X., & Compton, L. K. (2020). The effects of automated feedback on the quality of writing in different content domains: A meta-analysis. Educational Psychology Review, 32(1), 85-106.*
27. *Yang, M., & Xu, X. (2020). Revisiting the Influence of Confucian Culture on Chinese EFL Learners' and Teachers' Beliefs in Corrective Feedback in College English Classrooms. Language Teaching Research, 24(3), 337-356.*
28. *Zhang, Y. (2011). Writing feedback in the context of English as a Foreign Language: Confucian heritage and Western theory. Second Language Writing, 20(2), 124-139.*