

# The Impact of Outdoor Sports Combined with English Education on Students' Psychological State

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## Abstract

In order to understand the impact of English education on students' psychological state, the author proposes a study on the impact of outdoor sports combined with English education on students' psychological state. This article takes science and engineering students from a certain provincial university as the research object. Using questionnaires and interviews, 90 students were randomly selected to participate, including 75 boys and 15 girls aged between 18 and 20. 750% of these students have studied English for more than six years and have a certain level of basic language knowledge. Out of 90 students, 80 participated in the January 2022 CET-4 English proficiency test, with a pass rate of 52%, while only studying the college English textbooks for the third level. When investigating the psychological pressure generated by the Level 4 unified test, 50% of students believe that there is pressure, 40% believe that the pressure is too high, and 10% believe that the pressure is very low. Too much or too little pressure is not conducive to learning. Excessive pressure can affect students' learning emotions and generate a strong sense of anxiety, without pressure, it is not conducive to stimulating students' enthusiasm for learning. Time is an important factor for foreign language learners, and whether they are willing to spend so much time on foreign language learning directly affects their learning psychology and effectiveness. Although significant progress has been made in English learning, there is still a problem of "relatively low effectiveness" in English learning. There are various factors that affect English learning, and psychological factors such as learners' existing knowledge foundation, knowledge reserves and learning interests, disposition and fixed set, as well as personality, are closely related to the effectiveness of their English learning. Teachers should pay sufficient attention to this and adopt corresponding strategies to achieve the best results in their English learning.

**Keywords:** English Education, Mentality, CET-4 English.

## Introduction

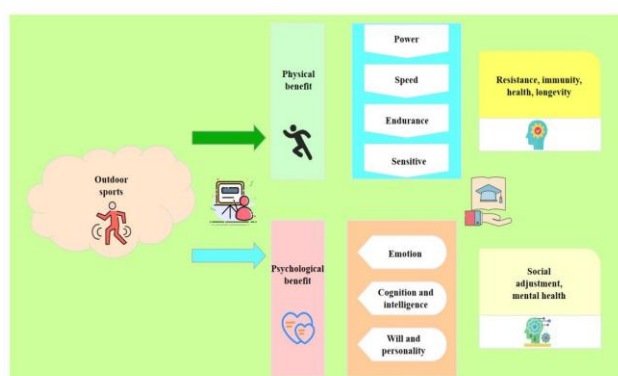
Foreign language teaching is a complex process that involves many variables, among which the learning psychology of learners plays a very important role. Learners are the main body of language activities and the internal cause of language learning, language researchers and language teachers must study the learning psychology of learners, pay attention to the psychological impact of external factors, adjust learning methods in a timely manner, leverage learners' psychological advantages, overcome or avoid their psychological disadvantages, and improve the level of language teaching. From a psychological perspective, the process of students' learning is also a process of students' psychological activities. A good psychological state is the foundation of successful learning. If students' psychological activities are normal, their cognition will be comprehensive and profound, their thinking will be agile and flexible, their memory will be accurate and firm, and the results will be substantial and significant; On the contrary, if students' psychological activities are

imbalanced or imbalanced, their understanding will be blurred, their thinking will be slow, and their learning effectiveness will be reduced. The same goes for college students' English learning. Therefore, analyzing and mastering the psychological characteristics of college students in English learning, guiding them to overcome psychological barriers to learning English, and enhancing the attractiveness of English teaching are undoubtedly beneficial for improving the quality of teaching, it is of great significance to maximize the motivation of each student to learn and improve the efficiency of college English classroom teaching (Jamil, 2023). Currently, anxiety is a common phenomenon in college students' English learning, mainly focusing on memorizing English words. During this process, anxiety is more likely to develop. Due to the significant language differences between English and Chinese, especially in terms of listening and speaking, students also face certain difficulties in the learning process. According to relevant surveys, the phenomenon of English learning anxiety among college students is relatively widespread, mainly manifested as sweating in the hands, accelerated

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heartbeat, and inability to read and pronounce normally during the learning process, even problems such as memory decline can occur, and the knowledge learned in class will soon be forgotten. In addition, the anxiety emotions that students have are specifically reflected in their rejection and avoidance of English learning. When in class, they are unwilling to look at the teacher and often choose to sit in the corner to listen, avoiding questions from the teacher, and even engaging in negative behaviors such as skipping classes. The anxiety that students experience in English learning can have a serious negative impact on their normal learning process, which is not conducive to the improvement of their English proficiency. Under anxiety, students often feel nervous due to the teacher's questioning, or fear and lack of confidence during English writing, reading, and skill training; Or there may be strong concerns about the results of the English exam, which can hinder the smooth learning and progress of college students' English. At the same time, under the influence of these anxiety emotions, it can also lead to students losing interest in the subject of English, leading to distorted learning motivation and no longer having a simple purpose and motivation. In the long run, there will be feelings of boredom and rejection towards English (Matsumura, 2022). In severe cases, it can also affect students' normal learning and exams, making it difficult to transfer existing knowledge, affecting students' academic performance, leading to a vicious cycle, reducing students' confidence in learning, and discouraging their enthusiasm for learning. The author analyzes the psychological factors that affect college students' English learning and proposes corresponding solutions to the corresponding psychological obstacles, aiming to explore new ways to improve the efficiency of college English classroom teaching. As shown in Figure 1:



**Figure 1:** The impact of English education on students' psychological state

## Literature Review

In modern society, the psychological health issues of students are increasingly being valued. With the increase of educational pressure, intense academic competition, and the popularity of social media and the Internet, many students are facing psychological stress, anxiety and depression. Therefore, exploring how to improve students' psychological state and enhance their mental health level has become an important task in the field of education today. Outdoor exercise, as a common form of physical activity, has many positive effects. It not only helps to improve students' physical health and physical fitness, but also has a positive impact on their mental health. Exercising in a natural environment can alleviate students' stress caused by academic and exam work, improve their emotions, and increase their sense of pleasure and happiness. In addition, outdoor sports also provide an opportunity to exercise social skills and cultivate team spirit, thereby promoting students' social interaction and communication. English education, as an important discipline, has a significant impact on students' comprehensive abilities and international communication abilities. However, some students may face learning anxiety or lack of confidence due to the high pressure of learning English. Therefore, combining outdoor sports with English education and exploring ways to learn and teach English in outdoor environments may provide students with a novel and beneficial learning experience that has a positive impact on their psychological state. In this context, the study will explore the impact of outdoor sports combined with English education on students' psychological state. By learning English in an outdoor environment, students have the opportunity to relax their body and mind, improve learning emotions, and reduce learning pressure through exercise. At the same time, combining outdoor activities with teamwork can enhance students' confidence and social skills, promote friendship and mutual support between each other. Through such research, we hope to provide new concerns and suggestions for improving educational methods for students' mental health, in order to promote their comprehensive development and happy growth. Wang, Tang and Wang (2023) designed an English education model based on neural network algorithms, developed an education system model with artificial intelligence, and summarized dimension related indicators that can be used for data analysis. These indicators not only include the content of human-computer interaction behavior data such as learning behavior, testing behavior, cooperative behavior, and resource search behavior, but also include

characteristic data such as demographic background information, learning ability, and learning attitude that affect learning effectiveness. We attempt to collect relevant indicators to the maximum extent possible. A method of audio-visual fusion based on Convolutional neural network is proposed. An independent CNN structure is used to achieve independent modeling of audio-visual perception and asynchronous information transmission, and to obtain descriptions of audio-visual parallel data in high-dimensional feature spaces.

## Research Methods

### Survey subjects

This paper focuses on the science and engineering students at a provincial university.

### Survey Methods

Using questionnaires and interviews, 90 students were randomly selected to participate, among them, there are 75 males and 15 females, aged between 18 and 20 years old. 750% of these students have studied English for more than six years and have a certain level of basic language knowledge. Out of 90 students, 80 participated in the January 2022 CET-4 English proficiency test, with a pass rate of 52%, while only studying the college English textbooks for the third level.

The survey questionnaire consists of three parts: The first part is a survey of personal psychological factors, including 10 small questions; The second part is a survey of social and psychological factors, consisting of 12 questions; The third part is to investigate the impact of the fourth level unified test on students' psychology, which is also

**Table 1**

#### Learning Interests

Interest level	Very interested	be interested	uninterested	detest
Student ratio	26%	54%	10%	10%

From the data in [Table 1](#), it can be seen that 80% of students are interested or very interested in learning English. With an interest in learning, one will have a strong learning motivation, which is the foundation of language learning. Teachers can use students' learning interests to carry out various meaningful teaching activities, which will definitely achieve satisfactory results. However, 20% of students are not interested or even disgusted with English learning, which is also an undeniable proportion. When writing textbooks and organizing classroom teaching, it is necessary to fully pay attention to their interest, adopt

composed of 12 questions. Each question has three to six choices, and students can choose one or more of them according to their actual situation. After class, planned interviews were conducted with students and some meaningful data and materials were collected. In addition, the CET-4 test results of the survey subjects in January 2022 were also collected for comparison and explanation ([Wang et al., 2023](#)).

## Statistical Analysis

Conduct statistical analysis on the collected data, including descriptive and inferential statistics. By analyzing the data, the degree and significance of the impact of students' participation in outdoor sports combined with English education on their psychological state can be determined.

## Research Results

### Analysis of Personal Psychological Factors

There are various psychological factors that affect learners' foreign language learning, including learning interests, cognitive styles, personality factors, anxiety disorders, etc. Psychological research has shown that differences in individual psychological factors can lead to differences in learning methods, attitudes, and academic performance. Therefore, it is necessary to fully understand the personal psychological factors of learners, which is an indispensable part of teaching research. Below are only a few main and representative data to be analyzed.

In the survey of personal psychological factors, we investigated learning interests, self-confidence, personality, anxiety, etc. As shown in [Table 1](#):

different teaching methods, use vivid language, make the classroom lively and enhance students' interest in learning. In the survey on personality factors, 30% of students believe that they have an introverted personality, 50% choose an extroverted personality, and the rest believe that depression is in between the two. This distinction of personality may not be very accurate, but it can also explain some issues. We found that students with introverted personalities mostly have stronger anxiety than those with extroverted personalities, mainly manifested in speaking and writing, extrovert students

are more daring and not afraid of making mistakes (60%), while introverted students are often afraid of making mistakes and often think carefully before speaking up and writing (90%). The psychological state of extroverted students when learning English is mostly relaxed and happy (40%), while introverted students are mostly anxious and tense (60%). Exams are an important factor that causes anxiety, with 60% of introverts and 50% of extroverts fearful of failing exams and experiencing learning anxiety. 30% of students with introverted personalities believe that they cannot perform normally during exams due to nervousness, and 20% of students with extroverted personalities. Without anxiety, one cannot learn a foreign language well, and excessive anxiety also hinders learning. Language learning should preferably be carried out in a relaxed and pleasant atmosphere, and appropriate pressure should be given to students to enhance their motivation for learning, in order to achieve satisfactory results. Confidence also shows certain differences due to personality differences. Among the surveyed students, 80% of those with extroverted personalities have confidence in learning English well, while 20% indicate lack of confidence; Among students with introverted personalities, 60% have confidence in learning English well and 40% lack confidence. From this perspective, extroverted students have stronger self-confidence than

introverted students. From the perspective of academic performance, the overall difference is not significant. In the January 2022 CET-4 exam, the pass rate for introverted students was 60%, while for extroverted students, the pass rate was 40% (Hui & Aiyuan, 2021). However, individual scores showed individual differences, with introverted students showing significantly higher scores in extensive reading and writing compared to extroverted students, while extroverted students showed higher listening scores. Therefore, it is difficult to say which personality is more advantageous for learning. Introverted individuals are often stable and meticulous, while extroverted students are bold and dare to practice. It can be said that each has their own strengths and weaknesses. Therefore, in teaching, teachers should pay attention to teaching according to individual circumstances, help students develop their strengths in personality, avoid their weaknesses, and achieve ideal teaching results (Biazar, 2022).

### Investigation and Analysis of Social and Psychological Factors

The investigation of social psychological difficulties includes learning motivation, learning environment, main factors affecting English learning, and the influence of teachers on English learning, among others. As shown in Table 2.

**Table 2**

#### *Learning Motivation*

Looking for an ideal job after graduation	Payable to Level 4 Graduate Examination	Understanding the UK and the US	Study Abroad
60%	40%	10%	5%

From the data in Table 2, it can be seen that the connection between English proficiency and social value promotes students' English learning, and 60% of students' motivation to learn English is to find their ideal job. Since the start of the CET-4 unified test, students' learning enthusiasm has greatly improved, and the passing rate of the CET-4 has been increasing year by year. Overall, students have a high level of enthusiasm for learning English, but their learning motivation is mostly practical and recent, such as going abroad for further education, taking postgraduate entrance exams, using foreign languages to improve professional skills, or engaging in cross-cultural communication, lacking long-term goals and plans, this phenomenon should also draw attention from relevant parties. Foreign language teachers should try their best to help students determine long-term goals and learning

plans, and not let English learning end when passing the CET-4 test (Alexander, John, & Babu, 2022).

### Main Factors Affecting English Learning

There are various factors that affect English learning. Table 3 shows that 60% of students believe that appropriate learning methods are the main factor affecting English learning, and 50% of students believe that even with good learning methods, without strong learning motivation, they cannot learn English well. The learning environment and atmosphere also directly affect learners' learning psychology and academic performance, which is recognized by 45% of students. In addition, science and engineering students have a heavy learning burden, and how to handle the relationship between English learning and other disciplines is a common concern for language teachers and learners. Teachers play a guiding role in

language learning activities, apart from 20% of students believing that teachers are the main factor affecting English learning, 80% of students believe that teachers have a significant impact on English learning. Teachers' teaching attitude and enthusiasm, language proficiency, and academic achievements (Rainey & Levine, 2022). Teaching experience, specialized training in foreign language teaching methods, adaptability to teaching, age and gender also affect the effectiveness of foreign language teaching.

Therefore, in language teaching, teachers should not only impart language knowledge, but also impart learning methods, cultivate students' good learning habits and self-learning abilities, guide students to balance English learning with other subjects, and allocate time scientifically (Kim & Yol, 2020). At the same time, teachers should also pay attention to improving their professional level, accumulating teaching experience and supervision, and ensuring teaching quality (Juan & You, 2021).

**Table 3**

*Main factors affecting English learning*

learning method	Learning motivation	Excessive burden on other disciplines	teacher	learning environment
60%	50%	25%	20%	45%

**The Psychological Impact of CET-4 Test on Learning English**

The CET-4 unified test is a nationwide college English exam, which has played a significant role in improving college English teaching and motivating students to learn English. What is the impact of the annual CET-4 test on students' learning psychology? Our domestic colleagues have conducted a lot of research, and we have also discussed our opinions based on the investigation (Choi, Kim, & Han, 2021). The implementation of the CET-4 unified test has changed the stagnant and undervalued situation of college English teaching in the past and has sparked a wave of learning English among college students. According to the production adjustment, 85% of students

spend about two hours a day learning English, ensuring that 90% of students have confidence in passing the CET-4 exam, psychologically prepared enough; 60% of students believe that the CET-4 exam promotes English learning, and without taking the CET-4 exam, their English proficiency cannot reach their current level; 50% of students believe that the CET-4 exam is necessary and should continue to be held. After three semesters of English learning, 90% of students participated in the CET-4 test in January 2022, the pass rate is 52%. This indicates that the CET-4 test has indeed played a role in promoting English learning (Chun, Lee, & Park, 2021). The positive effect of the fourth level measurement can also be seen from the university's annual pass rate (Table 4) (Hz & Daulay, 2021).

**Table 4**

*Grade 19 to Grade 21 Grade 4 Pass Rate*

grade	19	20	21
Pass rate	50%	60%	80%

However, the negative effects of the fourth level measurement cannot be ignored. Exams are just a means rather than an end, but the public or non-public ranking of inter school rankings has led many schools to view the passing rate of the CET-4 test as the only measure of English teaching, overemphasizing the passing rate, and various local policies have been formulated, such as not being able to obtain a degree or even a graduation certificate if one fails to pass the CET-4 level within four years, which has caused great psychological pressure on students. Carrying heavy burdens on one's back can make the learning process dull, even heavy and terrifying. The survey shows that 50% of students admit that their motivation to learn English is only to cope with the CET-4 exam, and for these students, exams have become the purpose of their learning (Zhang, 2021).

20% of students believe that the CET-4 test suppresses personality development and hinders the acquisition of true language communication skills. This is indeed quite outstanding in the classroom. In order to cope with the CET-4 unified test, the normal teaching order in some schools has been disrupted, and the system's textbooks have been set aside, replaced by a large number of exam simulation questions (Valcke et al., 2022). However, most of these simulation questions are pieced together, lacking systematicity and scientificity. The non communicative teaching method adopted to cope with exams also violates the principle of "cultivating students' verbal and communicative abilities" in the syllabus. The outline also points out that "foreign language teaching cannot only focus on the training of language skills at the sentence level

but must pay attention to the ultimate goal of foreign language teaching being communicative ability at the discourse level. Long term use of non-communicative teaching methods makes it difficult for students to learn how to use language in an appropriate context. When they discover that language knowledge cannot be naturally transformed into practical application abilities and cannot enhance their communication skills, they will feel "communicative incompetence", in some students, there may also be a mentality of refusing to communicate and avoiding communication, which can lead to serious consequences (Valcke et al., 2022). This phenomenon should be given sufficient attention. In addition, this abnormal teaching, which is only designed to cope with exams, also affects the exploration of teaching laws (Dafouz & Smit, 2022).

When investigating the psychological pressure generated by the Level 4 test, 50% of students believe that there is pressure, 40% believe that the pressure is too high, and 10% believe that the pressure is very low. Too much or too little pressure is not conducive to learning, excessive pressure can affect students' learning emotions and create a strong sense of anxiety, without pressure, it is not conducive to stimulating students' enthusiasm for learning. Schools and teachers should appropriately use the pressure sensor of Level 4 to transmit moderate force to students. For example, adding pressure above normal pressure can lead to a negative effect and create a widespread aversion to English learning among students (Yin, 2022).

Therefore, in English teaching, it is necessary to use pressure scientifically and effectively, and not to abuse it. In terms of time allocation, 50% of students believe that the time spent preparing for the CET-4 exam is too large compared to other subjects, which affects the normal learning of other subjects, especially professional courses. Time is an important factor for foreign language learners, and whether they are willing to spend so much time on foreign language learning directly affects their learning psychology and effectiveness.

Overall, the positive effect of the fourth level measurement is still much greater than the negative effect. It plays a very positive role in promoting the implementation of the teaching syllabus and English teaching, but we cannot ignore its negative effects. As English teachers, we have a responsibility to jointly promote the positive role of the CET-4 exam, overcome its negative or even negative effects, make the CET-4 unified test a promoter of college English teaching, promote the implementation and implementation of the "Outline", and improve the English teaching and assessment system (Fotuhabadi, Elahi Shirvan, & Khajavy, 2022).

## Discussion

After studying the impact of outdoor sports combined with English education on students' psychological state, we obtained the following results and discussed them:

1. Positive impact on students' psychological state: The research results show that outdoor sports combined with English education have a positive impact on students' psychological state. When students engage in English learning and teaching in outdoor environments, by participating in sports activities, they can relax their body and mind, reduce learning and exam pressure, and thus improve their learning emotions. In addition, outdoor sports also provide an opportunity to exercise social skills and teamwork, making students more confident and outgoing, and enhancing friendship and interaction with classmates.

2. Improve students' confidence: Students who participate in outdoor sports combined with English education exhibit higher confidence. In outdoor environments, students face different challenges such as communication, cooperation, and problem-solving. Through the experience of sports and practical English learning, they gradually improve their abilities and develop a positive attitude towards their performance, which plays a positive role in enhancing students' learning enthusiasm and self-efficacy.

3. Promoting students' mental health: The combination of outdoor sports and English education has a positive promoting effect on students' mental health. In the outdoor natural environment, students can feel more sunlight and fresh air, which helps alleviate learning pressure and anxiety, and increases their sense of happiness. At the same time, outdoor sports also provide a way to release negative emotions, so that students can better regulate their emotional state and maintain a Positive mental attitude.

4. Promoting social interaction among students: In the process of combining outdoor sports with English education, social interaction between students and classmates is promoted. Students have formed good cooperative relationships in sports and learning, enhancing friendship and mutual trust. This positive social interaction has significant positive implications for the development of students' psychological state and interpersonal relationships.

Based on the above results, outdoor sports combined with English education have a significant positive impact on students' psychological state. This provides an innovative teaching method and activity design for schools and educational institutions, helping students improve their learning motivation and effectiveness, while enhancing

their mental health and social skills. However, it is worth noting that although this study has drawn positive conclusions, the research sample may be limited, and further in-depth research and replication experiments are needed to strengthen understanding of this issue. In addition, different student groups may have differences in their psychological states, so when implementing educational reform, it is also necessary to consider individual differences and diverse needs.

Through this survey on the psychological status of science and engineering students in English learning, we believe that the following points should be taken seriously:

1) Pay attention to cultivating students' interest in learning and improve their motivation for learning. Teachers should adopt an encouraging approach in the classroom, allowing students to receive frequent feedback on their progress; Conduct appropriate learning competition activities; The teaching content should be inspiring, and the classroom organization should be diverse and lively; If conditions permit, audio-visual audio-visual aids can be used; Appropriate use of testing and grading to enhance learning motivation; Encourage students to participate more in classroom language activities and boldly express their thoughts in language; Enable students to learn more about the culture of the language countries they are learning and increase their interest in learning. In short, in order to enhance learning motivation, teachers must try to enhance students' interest in learning, so that students do not regard learning as a burden (Ou, Hult, & Gu, 2022).

2) Pay attention to teaching according to one's aptitude and individual needs. Based on students' individual differences, use different teaching methods to inspire and induce students, help them leverage their psychological strengths, overcome psychological weaknesses, and learn English well (Jufang, 2022).

3) In teaching, teachers should not only impart language knowledge, but also teach students a set of foreign language learning methods, such as: How to overcome native language interference, how to train language skills, how to deal with language errors, how to learn pronunciation and intonation, how to remember words, how to improve reading ability, and so on; Helping students determine long-term learning motivation and goals, enabling them to benefit for life rather than for a moment.

4) Adjust the position of CET-4 in college English teaching appropriately, and make appropriate use of CET-4 as a pressure sensor, so that it can truly reflect students' level and teaching quality comprehensively and accurately, promote the implementation of the Outline, and improve teaching activities (Wang, 2022).

## Conclusion

The anxiety that many students experience during the process of learning English is manifested in fear of being asked and answered by teachers, mainly due to students' lack of confidence in their own learning abilities. Therefore, teachers should be able to help students establish self-confidence and alleviate their fear of negative evaluations during the process of learning English. Only when students have strong confidence in English can they better demonstrate their abilities in exams and practical language applications. So, teachers should enable students to have a full understanding of their own potential.

In college English learning, many students may experience anxiety, and an important reason is the CET-4 exam. Whether the CET-4 exam is passed or not is often linked to the graduation situation, so it can also bring invisible pressure to students' English learning, which not only affects their learning effectiveness, but also is not conducive to their mental health development. Therefore, it is necessary to strengthen psychological counseling for college students, especially those who have just enrolled, so that they can adjust their learning attitude and improve their psychological quality. Having a correct understanding of the significance and goals of English exams, facing them with a relaxed attitude, effectively preventing the occurrence of anxiety. The main factors that affect the effectiveness of college students' English learning are not intellectual factors, but rather psychological factors of most learners. Teachers should give themselves a new and correct positioning of their roles and roles. In the teaching process, if they can timely grasp students' learning psychological problems and based on the actual situation, teaching revolves around cultivating students' interests and abilities, guiding them to overcome difficulties in a timely and relevant manner, improving their psychological quality, and ensuring psychological harmony and consistency between teachers and students, all difficulties we encounter will be easily solved.

Future research directions can further explore the impact of outdoor sports combined with English education on students' psychological state, in order to expand our understanding of this field. Here are some suggested future research directions:

1. Research different student groups: Conduct in-depth research on the psychological differences between different student groups in outdoor sports combined with English education. Considering different ages, genders, cultural backgrounds, and learning characteristics, explore the applicability and effectiveness of this educational approach for different

student groups, in order to develop more targeted educational strategies.

2. Compare different educational methods: Conduct a comparative study between outdoor sports combined with English education and traditional teaching methods and evaluate the differences in students' psychological state and learning effectiveness between the two methods. This helps to provide more evidence to support the decision of schools and educational institutions to introduce outdoor sports education in instructional design.
3. Explore psychological mechanisms: Conduct in-depth research on the psychological mechanisms by which outdoor sports combined with English education have

a positive impact on students' psychological state. Through psychological experiments and neuroscience research, this study aims to reveal the cognitive, emotional, and behavioral changes of students during outdoor activities and English learning, in order to understand the mechanism of their impact on psychological state.

In short, future research should continue to explore the impact of outdoor sports combined with English education on students' psychological state, and further expand the depth and breadth of research in this field. This will provide beneficial theoretical guidance and practical reference for school education, promoting students' comprehensive development and mental health.

## References

- Alexander, M., John, C., & Babu, K. S. (2022). Online Education and English Language Learning Among Tribal Students of Kerala. *ECS Transactions*, 107(1), 19453. <https://doi.org/10.1149/10701.19453ecst>
- Biazar, B. (2022). Adult English Language Education at a Time of Globalization: Opportunities for Critical Social Change. *New Horizons in Adult Education and Human Resource Development*, 34(1), 55-59. <https://doi.org/10.1002/nha3.20324>
- Choi, Y.-L., Kim, J.-W., & Han, J. (2021). Development of Profanity Response Module for Artificial Intelligence Service for English Education. *Journal of Korean Institute of Intelligent Systems*, 31(3), 192-198. <https://doi.org/10.5391/JKIIS.2021.31.3.192>
- Chun, H., Lee, S., & Park, I. (2021). A Systematic Review of AI Technology use in English Education. *Multimedia-Assisted Language Learning*, 24(1), 87-103. <https://doi.org/10.15702/mall.2021.24.1.87>
- Dafouz, E., & Smit, U. (2022). Towards Multilingualism in English-Medium Higher Education: A Student Perspective. *Journal of English-Medium Instruction*, 1(1), 29-47. <https://doi.org/10.1075/jemi.21018.daf>
- Fotuhabadi, Z., Elahi Shirvan, M., & Khajavy, G. H. (2022). Affordances in Iranian English for Academic Purposes Education: An Ecological Approach. *Human Arenas*, 5(1), 143-160. <https://doi.org/10.1007/s42087-020-00130-w>
- Hui, W., & Aiyuan, L. (2021). A Systematic Approach for English Education Model Based on the Neural Network Algorithm. *Journal of Intelligent & Fuzzy Systems*, 40(2), 3455-3466. <https://doi.org/10.3233/JIFS-189383>
- Hz, B. I. R., & Daulay, E. (2021). Online Learning Media: English Education Department Students' Perspective. *Metathesis: Journal of English Language, Literature, and Teaching*, 5(1), 50-64. <https://doi.org/10.31002/metathesis.v5i1.3604>
- Jamil, M. G. (2023). Academic English education through research-informed teaching: Capturing perceptions of Bangladeshi university students and faculty members. *Language Teaching Research*, 27(1), 57-79. <https://doi.org/10.1177/1362168820943817>
- Juan, C., & You, Q. (2021). Research on the Application of Computer Multimedia Technology in English Education and Teaching. *Journal of Physics: Conference Series*, 1915(3), 032018. <https://doi.org/10.1088/1742-6596/1915/3/032018>
- Jufang, M. A. (2022). Research on Integrating Moral Education Into College English Course on the Basis of Outcomes-Based Teaching Mode. *Psychology Research*, 12(10), 865-873. <https://doi.org/10.17265/2159-5542/2022.10.012>
- Kim, H. K., & Yol, Ö. (2020). A Comparative Study of Hedges between ES and KS in Two Fields of Study: English Education vs. Biology. *English Language Studies*, 26(1), 175-197. <https://doi.org/10.17960/ell.2020.26.1.009>
- Matsumura, S. (2022). Self-efficacy Beliefs Among Non-specialist Teachers in Primary English Education. *Language Teaching for Young Learners*, 4(1), 118-142. <https://doi.org/10.1075/ltyl.21010.mat>
- Ou, A. W., Hult, F. M., & Gu, M. M. (2022). Language policy and planning for English-medium instruction in higher education. *Journal of English-Medium Instruction*, 1(1), 7-28. <https://doi.org/10.1075/jemi.21021.ou>
- Rainey, E. C., & Levine, S. (2022). Guest Editorial: Introduction to Special Issue on Disciplinary Literacy in English Teaching and Teacher Education. *English Teaching: Practice & Critique*, 21(1), 1. <https://doi.org/10.1108/ETPC-04-2022-196>



- Valcke, J., Nashaat-Sobhy, N., Sánchez-García, D., & Walaszczyk, J. (2022). Teacher Development to Mediate Global Citizenship in English-Medium Education Contexts. *Journal of English-Medium Instruction*, 1(1), 65-84. <https://doi.org/10.1075/jemi.21020.val>
- Wang, Q., Tang, L., & Wang, Y. (2023). Potential Applications of the Metaverse in Higher English Education. *Open Journal of Social Sciences*, 11(1), 450-459. <https://doi.org/10.4236/jss.2023.111031>
- Wang, Y. (2022). SCRELE (Shanghai Center for Research in English Language Education) biennial conference 2021: Assessing young learners. *Language Teaching for Young Learners*, 4(1), 184-187. <https://doi.org/10.1075/ltyl.21021.wan>
- Yin, H. (2022). The recommendation method for distance learning resources of college English under the MOOC education mode. *International Journal of Continuing Engineering Education and Life Long Learning*, 32(2), 265-278. <https://doi.org/10.1504/IJCEELL.2022.121944>
- Zhang, L. (2021). A New Machine Learning Framework for Effective Evaluation of English Education. *International Journal of Emerging Technologies in Learning*, 16(12), 142-154. <https://doi.org/10.3991/ijet.v16i12.23323>