

A Systematic Literature Review of Online English Learning Engagement

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Abstract

English learning engagement refers to learners' emotional, behavioral, and cognitive participation in relevant English learning activities (Kuh, 2001; Balwant, 2017). Learning engagement is closely connected with learners and learning courses, and is an important indicator of learners' learning process (CAI Chen, 2021), and has a strong correlation with learning outcomes and learning performance (Robinson & Hullinger, 2008). With the application of modern technology in foreign language teaching, online English learning engagement has gradually become a hot topic in the field of foreign language studies. This study uses the systematic literature review method to sort out the relevant research on online English learning engagement at home and abroad, and the analysis finds that: 1) Most studies on online English learning engagement focus on the effects of teacher factors, learners' factors and peer factors on online English learning engagement. 2) Mixed methods are used in most studies, such as structural equation modeling of data through questionnaires or reporting relevant data after descriptive statistical analysis to explain the research suggestions on the influence mechanism of online English learning engagement. 3) In the online English learning environment, the overall level of learners' learning engagement is medium to above, but the level of behavioral engagement is low, which is related to the lack of interaction in online learning. Meanwhile, the relationship structure between various dimensions of learning engagement is complex and affected by other factors, which requires more in-depth exploration. The study suggests that educators should pay attention to learners' interest in online learning and social interaction, and enhance peer interaction and learners' self-efficacy through timely adjustment of teaching strategies, reasonable provision of teacher support, and comprehensively improving learners' engagement in online English learning, to promote English learning.

Keywords: online English learning engagement, online learning, English learners, systematic literature review

1. Introduction

Learning/student engagement is an important criterion for learners to actively participate in

classroom learning, which is generally reflected in learners' concentration or effort in the classroom learning process, and is an important factor affecting learning quality and outcomes

(Kuh, 2001; Balwant, 2017; Fredricks et al., 2004; Reschly & Christenson, 2013). The relevant research on time on task by American scholars in the 1930s is considered to be the earliest research on learning engagement. Researchers initially explored the relationship between the time learners devote to a task and the degree of learning acquisition and found that the time learners devote to learning and the degree of learning acquisition are positively correlated, that is, the more time learners devote to learning, the deeper the degree of learning acquisition, and the better the quality and outcome of learning. With the continuous progress and development of research in this field, only the lack of research time investment has become increasingly prominent, and researchers have gradually turned to more in-depth research on the definition of the connotation of learning investment and its influencing factors. At present, the three-dimensional definition of the connotation of learning engagement is generally recognized in the academic circle, and learning engagement is the organic unity of the three dimensions of behavioral engagement, emotional engagement, and cognitive engagement (Schaufeli, 2002; Fredricks et al., 2004; Kahu, 2013).

English learning engagement refers to the effort, time, and energy that learners put into the English learning process, and is a multidimensional structure that includes behavioral, cognitive, emotional, and social engagement (Philp & Duchesne, 2016; Luan Lin et al., 2022). Behavioral engagement is embodied in learners' behavioral integration into the curriculum or other learning environment, emotional engagement is embodied in learners' emotional response to the classroom and other learning environment, including positive and negative emotions, and cognitive engagement refers to learners' cognitive willingness to manifest in the classroom or other learning activities (Reschly & Christenson, 2013; Philp & Duchesne, 2016; Lam et al., 2013: 406). Learners can also exhibit interactive, active, passive and other engaged behaviors (Doymus et al., 2004; Menekse et al., 2013; Zhang & Linn, 2013). Existing studies have confirmed that learners with high learning engagement are more likely to take the initiative to learn, overcome challenges in learning, and try their best to complete learning tasks. On the contrary, learners with low learning engagement are more

likely to give up learning and have negative emotions such as boredom and anxiety, which greatly affect the quality of learning. It can be seen that learning engagement is an important factor to expand learners' lifelong learning ability and promote learners' academic achievement (Wang Yashun & Zhao Chang, 2021; Chi & Wylie, 2014).

Given the maturity and application of modern technology, new computer-assisted teaching modes such as remote live teaching, mixed online and offline classes, and open online courses have become increasingly popular. In recent years, research on online English learning engagement has become a hot topic in foreign language circles at home and abroad. The research results indicate that learners' English learning in an online environment can be timely adjusted, to explore the factors that can effectively improve learners' online English learning engagement and ensure the quality of online English learning, etc., and give important suggestions, which are of great significance for both learning engagement and English language learning. However, the analysis methods of online English learning engagement are monotonous, mostly using questionnaires, and combing through the analysis of the characteristics of relevant influencing factors is also insufficient, which is not conducive to understanding the research hotspots in this field and grasping the research trends. Based on this, this study reviews relevant empirical studies on online English learning engagement at home and abroad, analyzes the characteristics of online English learning engagement in the online environment, summarizes the influential research findings, summarizes the analysis methods and tools, and explores the characteristics of online English learning engagement at home and abroad in recent years, to provide some inspiration for the study of learning engagement and English language learning.

2. Research Design

2.1 Research Methods

A systematic literature review was used in this study. Under the guidance of clear research questions, this method retrieves relevant literature selects and eliminates literature with clear inclusion criteria, and conducts comprehensive data analysis after finally determining the research literature samples

(Jiang Yanshuang et al., 2022), which can reduce research bias caused by traditional literature review methods (Xiao et al., 2019).

2.2 Research Questions

To accurately present the research dynamics of English learning engagement in online environments, the following research questions were identified:

- 1) What are the main influencing factors of online English learning engagement?
- 2) What are the main analysis methods used in the study of online English learning engagement?
- 3) What are the characteristics of online English learning engagement shown by relevant studies?

2.3 Research Samples and Searching Criteria

2.3.1 Access to Literature

This study mainly analyzes English learning engagement in the online environment, to effectively search the relevant research literature on online English learning engagement at home and abroad. The research was conducted at Web of Science, Springer Link, and other authoritative databases with “Online English learning engagement” “English learning engagement in an online environment” and “Online learning engagement with English” as

the theme to search relevant foreign literature, the publication time is limited to January 2012–December 2022. The category is limited to “Education Educational Research” or “Linguistics”, the document type is limited to “Article”, excluding conference proceedings papers, book chapters, review papers, etc. The language was limited to “English”. Meanwhile, relevant Chinese literature was retrieved from CNKI and another two databases with the theme of “online English learning engagement”. Considering the research and development of online English learning engagement at home and abroad, the sources of foreign literature were limited to SSCI or ESCI journals, while academic dissertations were excluded from Chinese literature, and only periodical literature was retained. After searching, a total of 178 literatures were obtained, including 146 English literatures and 32 Chinese literatures.

2.3.2 Literature Searching Criteria and Process

To accurately grasp the research status of online English learning engagement and ensure the accuracy of the included literature, this study drew on the existing systematic literature review screening criteria, and formulated relevant literature inclusion and exclusion criteria according to the research questions in this study, as shown in Table 1.

Table 1. Criteria for inclusion and exclusion of literature

Serial Number	Inclusion criteria	Exclusion criteria
1	Full text available	Full text not available
2	The learning activities are online English learning.	Learning activities are not English learning or are not in an online environment.
3	The research process includes clear research questions and research conclusions.	The research process does not include clear research questions and research conclusions.
4	The research content is to explore the characteristics or changes in online English learning engagement.	The content of this study is to explore the English output regulated by learning engagement.
5	The research includes the exact engagement data analysis method.	The research is not include the exact engagement data analysis method.

The total 178 pieces of literature retrieved were screened again, and through the “snowball” method, more literature meeting the criteria was retrieved. A total of 41 valid pieces of literature meeting the criteria of this study were finally selected, including 25 foreign literature and 16

Chinese literature. The specific PRISMA process is shown in Figure 1. In this study, 41 sample literature were coded in terms of author, title, keywords, publication year, research topic, research method, research conclusion, and research revelation.

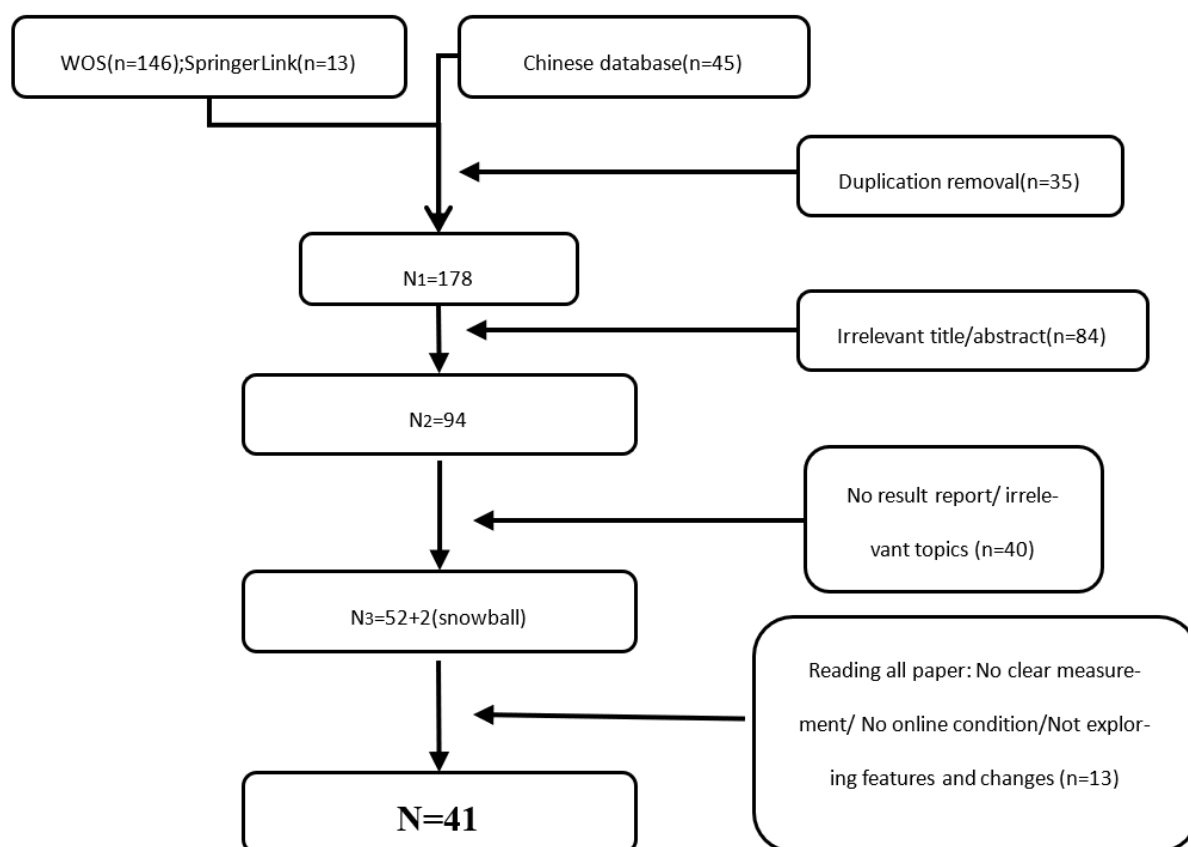


Figure 1. PRISMA flow chart

3. Trends of Online English Learning Engagement Research

To get a preliminary understanding of the development trend of English learning engagement in the online environment, this part makes a summary of two aspects: literature publication (combined presentation of Chinese and foreign literature) and literature with high citation (Chinese and foreign literature respectively).

3.1 Literature Publication Status

From the perspective of the annual number of published documents in the sample literature, within the time range of retrieval, the number of published documents was very small from 2012 to 2017 and showed an overall increasing trend after 2018. Among them, the trend of published documents in 2021 and 2022 increased significantly, as shown in Table 2. In recent years, the increase in the number of papers on topics related to online English learning engagement is related to the continuous in-depth research on

flipped classrooms by scholars in the field, the positive predictive effect of learning engagement on learning outcomes, and the popularity of modern technology in English teaching. For example, four highly cited papers published in 2019 and 2021 mainly take flipped classrooms as the background of English teaching, exploring the characteristics of learners' online English learning engagement in a blended teaching environment and its relationship with learning outcomes. From the perspective of journal sources, Chinese literature mainly comes from authoritative journals such as *Foreign Language World*. Foreign literature is mainly from *Education and Information Technologies*, the *International Journal of Distance Education Technologies*, and other periodicals related to modern technology-assisted teaching and distance learning. From the perspective of English learning, the research background involves learners' speaking, English writing, English reading, and so on.

Table 2. Number of published papers in the sample from 2012 to 2022 (unit: articles)

Year	Number of published papers	Years	Number of posts	Years	Number of posts
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2012	0	2016	2	2020	1
2013	0	2017	0	2021	12
2014	0	2018	4	2022	17
2015	0	2019	5		

3.2 Highly Cited Literature

The citation frequency of literature reflects the academic influence of the paper in the field to a certain extent. Among the 25 foreign literatures

and 16 Chinese literatures, 2 foreign literatures and 2 Chinese literatures are selected for brief analysis according to the citation frequency, as shown in Table 3.

Table 3. Overview of highly cited literature

	Number of citations	Year of publication	Title of paper	Thesis topic	Main content
Foreign literature	37	2019	<i>The incorporation of flipped learning into conventional classes to enhance EFL learners' L2 speaking, L2 listening, and engagement</i>	Feature analysis, impact studies	(1) Questionnaire, English test, statistical analysis: standard deviation, average value, <i>P-value</i> , etc. (2) Differences in speaking, listening, and learning engagement between conventional learning group, online and offline learning group, and online learning group (3) Online learning environment can improve English learners' speaking and listening level and positively predict learning engagement
	29	2016	<i>The Impact of Teaching Presence on Online Engagement Behaviors</i>	Impact Studies	(1) Online questionnaire, text analysis, regression analysis (2) The influence of teacher presence on English learners' online engagement (3) The teacher presence perceived by English learners has a positive effect on interactive engagement behaviors, but no significant effect on passive and active engagement behaviors
Chinese Literature	31	2021	<i>Study on learning engagement in blended academic English writing classroom</i>	Feature analysis and influence research	(1) Classroom observation, text analysis, and semi-structured interview (2) Characteristics and influencing factors of behavioral, cognitive, and emotional engagement (3) Diversified behavioral engagement, in-depth cognitive engagement, and

					objective engagement, which are jointly influenced by individual and environmental factors
	29	2021	<i>A study on the impact of motivational regulation on learning engagement in college English classrooms in a blended teaching environment</i>	Influence Study	(1) Questionnaire survey and structural equation modeling (2) The influence of motivation regulation on learning engagement (3) Motivation regulation can directly and positively predict learning engagement on the whole, and students' teaching environment preference plays a mediating role

From the specific analysis of the thesis theme and the main content of the paper, the research of highly cited literature is mainly based on the mixed teaching environment as the background, and the research mainly analyzes the characteristic difference or the comparison of the level of learners' learning engagement in the online English learning environment with the assistance of modern technology and the traditional learning environment, as well as the influence of some or some factors in the mixed learning environment on the learning engagement. By exploring the characteristics of learners' online English learning engagement, these studies provide some feasible suggestions for blended foreign language teaching and online teaching and also promote the effective application of blended English learning and online English learning.

4. Research Trends of Online English Learning Engagement

4.1 Research Focus on Online English Learning Engagement: Influencing Factors

An analysis of 41 sample literature shows that teacher factors, learner factors, and peer factors are the research hotspots of online English learning engagement. Teacher factors include teacher support strategies and teacher humor; Learner's self-factors include learner's self-efficacy, motivation regulation, learner's emotional and psychological characteristics, etc. Peer factors include peer feedback and interaction patterns.

4.1.1 Teachers Factors

Teachers are crucial in the learning process of students. Existing studies have shown that although the overall level of learners' engagement in online English learning is above average, learners in online situations lack interaction with teachers, are prone to negative emotions, and lack of teacher supervision may lead to distracted behaviors, thus reducing the level of learning engagement. Therefore, the influence of teacher factors on learners' online English learning engagement is also a hot topic in the study of online English learning engagement. At present, the specific research on teacher factors can be divided into general teacher support, specific teacher support strategies, and teacher humor. For example, Luan Lin et al. (2022) divided teacher support strategies into six dimensions: giving challenges, creating situations, stimulating interest, encouraging autonomy, motivating recognition and feedback evaluation, and divided online English learning engagement into four dimensions: cognitive, behavioral, emotional and social engagement, proving that teacher support strategies have a positive and significant impact on online English learning engagement. Gao Qiyang et al. (2022) divided teacher humor styles into four categories with a total of 17 items, including 6 items of teacher humor related to class, 3 items of teacher humor unrelated to class, 4 items of self-deprecating teacher humor, and 4 items of aggressive teacher humor. The results show that teachers' humor from the teacher's perspective and the student's perspective have different impacts on learners'

online English learning engagement, and there is a certain asymmetry between the delivery of teachers' humor and learners' perception of humor (Cooper et al., 2018; Baisley, 2014; Gochyan et al., 2022). Some studies also focus on the impact of teachers' emotional support on learners' online English learning engagement. The results show that teacher interaction at the cognitive and emotional communication levels can improve students' positive emotional engagement and satisfaction with online English learning, thus improving online learning effectiveness. Meanwhile, students' perception of teaching effectiveness also affects learning effectiveness and engagement.

4.1.2 Learner's Self-Factors

The learner is the main body of online English learning. In addition to paying attention to the influence of teacher factors on learners, researchers also explore the influence of some factors on online English learning engagement from the perspective of learners themselves, mainly from the aspects of learners' psychological cognition and emotion, including learners' dynamic regulation ability, self-efficacy, learning perception and so on. It is found that among the learners' motivational regulation ability, which is composed of four dimensions: interest enhancement, goal orientation, environmental control, and behavior reinforcement. Among these, interest enhancement has a significant predictive effect on learners' behavioral, cognitive, and emotional learning engagement, and cognitive engagement is the dominant factor of classroom learning engagement. The research suggests that the process of second language acquisition should pay attention to the activation of learners' cognitive engagement, to improve the level of learning engagement in general (Ren Qingmei, 2021). Some studies also found that learners' self-efficacy in learning behavior was higher than their perceived self-efficacy in learning ability in online English learning, and academic self-efficacy can positively predict learning engagement. However, studies also reported that learners' fake high engagement. Now, seemingly high task completion may be passive coping with learning tasks. In addition, the level of behavioral and emotional engagement is often low. At the same time, researchers also pay attention to the exploration of learners' own emotional and psychological factors. For example, Garcia-Castro (2022) explored the

relationship between foreign language learning anxiety and online English learning engagement, and CAI Chen (2021) explored learners' perceived ability to provide and its relationship with engagement from the perspective of "provision", while Hui Lianghong and Wang Boran (2022) investigated the influence of learners' digital indigenous characteristics on psychological characteristics. The results show that a certain level of English foreign language learning anxiety can positively predict learning engagement in online learning. Chinese English learners have a higher level of digital native characteristics and a higher level of perception of the overall environmental provision in online learning, and provision in the online learning environment has a positive effect on online English learning engagement.

4.1.3 Peers Factors

In online learning, learners tend to lose their minds and slack off due to the lack of social interaction. Peers can not only provide social support but also play a certain role of supervision. By improving learners' learning initiative and learning perception ability, they can improve learners' level of online English learning engagement. The research on online English learning engagement explores peer factors mainly in the aspects of peer feedback and interaction mode. The study found that cooperative learning in an online learning environment also has positive effects. Through comparative experiments, the research confirmed that in the process of online learning, learners show a higher level of learning engagement in cooperative learning than in pure English learning, and the deeper the interaction between learners, the higher the level of engagement and better learning effect will be displayed (Lai et al., 2019). Based on the analysis of interview data, learners believe that peer interaction can better create a real classroom atmosphere, and functions such as collaborative modification and real-time recording provided by online learning platforms improve the convenience of peer interaction. In cooperative learning, peer interaction can make up for the lack of teacher supervision in online learning to some extent, and play a certain role in learning supervision. At the same time, peer interaction can reduce negative emotions such as loneliness in online learning, enhance learners' sense of community in class, further improve learners' positive emotions, and establish a deeper

connection between learners and online English learning.

To sum up, the research on the influencing factors of online English learning engagement presents a diversified feature. It is worth noting that whether it is the teacher factor, learner's factor, or peer factor, relevant research results show that improving learners' interest in online learning, enhancing learners' social interaction (teacher-student interaction/peer interaction/text interaction, etc.), enhancing learners' knowledge constructional learning, and creating an online learning atmosphere for learners to be supervised and communicate with each other. These are the key points to effectively improve online English learning engagement, and worthy of researchers' attention in the field of online English learning engagement.

4.2 Research on Online English Learning Engagement: Analytical Approach

Quantitative research and mixed research methods are the main methods of online English learning engagement research, and few literatures simply use qualitative research. Quantitative research is mainly based on questionnaire surveys, and a few papers use a combination of questionnaire surveys and corresponding tests. In mixed research, a questionnaire survey is combined with open questions, semi-structured interviews, learner text analysis, etc. The qualitative research methods include online platform data analysis, semi-structured interviews, and learner text analysis. The application of different research methods constitutes a diversified analysis path of online English learning engagement, which is divided into the following three categories:

4.2.1 Questionnaire Analysis

In the sample literature, most studies develop relevant scales, collect data in the form of questionnaires, and use analysis software to conduct structural equation modeling, correlation analysis, and regression analysis on the questionnaire data, to explore the influence mechanism of online English learning engagement.

4.2.1.1 Structural Equation Modeling

Researchers emphasize the use of models to present the characteristics of the interactive relationship between online English learning engagement and explore the influencing mechanism of the corresponding factors,

especially domestic researchers. A few studies have explored the interaction between different dimensions of learning engagement through structural equation modeling. In their study, Yang Gang and Dai Zhaohui (2021) proposed that behavioral engagement, cognitive engagement, emotional engagement, active engagement, and learning motivation are the main influencing factors of online English learning engagement. Through structural equation modeling of questionnaire data, the relationship among these dimensions was explained. In addition, most studies use models to explain the relationship between specific factors and online English learning engagement. For example, Hui Lianghong and Wang Boran (2022) explained the mechanism of the influence of four factors of digital native characteristics (accompanying technology growth, multi-tasking, image communication, instant gratification, and reward) on online learning engagement through the model. This study demonstrates the mechanism of digital native feature factors on online English learning engagement and affirms the space for research and exploration on the impact of digital native features.

In addition, Li Zhengwei et al. (2022) also used a model to reveal the complex structural relationship between learners' English code propensity, technology acceptance, and online learning engagement, indicating the importance of promoting code matching to improve the quality of online English teaching. It can be seen that structural equation modeling can not only verify the influencing factors of online English learning engagement but also explain the complex structural relationship between the level of engagement and various factors by observing the significance *P-value* and other values, to further explore the influencing mechanism of online English learning engagement.

4.2.1.2 Descriptive Statistical Analysis

Descriptive statistics, correlation analysis, and regression analysis can be done by reporting the relevant values and presenting the results of the data analysis in tables.

Among the sample literature, the literature using this kind of analysis mostly explores articles on influencing factors. In general, multiple groups of experimental and control groups are set up, and the research results are

reported by comparing the data between groups and observing the correlation coefficient. Ali (2021) compared the impact of online environment/network technology on learning output through the descriptive statistical values between different groups in the pre - and post-reporting tests and explored the differences in behavioral, cognitive, and emotional engagement between different groups in the questionnaire engagement data through one-way ANOVA. Garcia-Castro (2022) used regression analysis and presented data such as mean, standard deviation, *T-value*, and *P-value* to report the relationship between online English learning engagement and foreign language learning anxiety. It can be seen that descriptive statistical analysis data can initially explore the relationship between different factor levels and online English learning engagement by reporting corresponding values, and can present the data between different experimental groups.

4.2.2 Interview Data Analysis

In addition to using questionnaire data to quantitatively analyze learners' online English learning engagement, some researchers also use semi-structured interviews to dig deeper into the information of learners' online English learning engagement by understanding their English learning experience. After summarizing the sample literature, it is found that the interview content mainly collects the data of learners from the aspects of applicability, evaluation, and suggestion to the online learning environment, self-adjustment of learners' online English learning, evaluation of certain factors in an online environment, and so on. Typical interview questions include "What do you think is the difference between online learning and offline language lab learning", "What do you think online learning or learning platform can help you improve your concentration/learning interest/English level", "Do you prefer online learning or offline learning", and etc. In addition, the content related to engagement in the interview is usually coded and marked, and a brief explanation and analysis are carried out.

4.2.3 Data Analysis from Online Platform

Online learning is usually implemented with the help of the corresponding learning platform. Therefore, some researchers also report the engagement of learners by analyzing the platform data. At present, online platform data are mainly used to judge learners' behavioral

engagement. For example, researchers usually define learners' behavioral engagement value by the number of times learners log in to the platform, the number of times they submit revised manuscripts, the duration of platform login, and the number of forum posts or replies. Through statistical analysis of the relevant values, the level of learners' behavioral engagement or the differences between groups of behavioral engagement can be reported.

4.3 Research on Online English Learning Engagement: Dimensional Characteristic Performance

Online learning provides learners with a variety of learning environments but also brings some challenges. By analyzing the sample literature, this study finds that in previous studies, learners show a variety of characteristics of overall online English learning engagement, and the three dimensions of learning engagement also show a variety of characteristics, with a certain relationship between the dimensions. In terms of emotional engagement and behavioral engagement, the results of different studies vary greatly, but most researchers affirm that the online environment is conducive to improving cognitive engagement. The results of the relevant research report are summarized as follows:

4.3.1 Emotional Engagement

Existing studies differ on the role of online environments in students' emotional engagement. Some studies have found that learners have some negative emotions towards traditional English classes, while online learning environment improves learners' learning interest, and classroom emotional experience produces positive changes and improves learners' emotional engagement. Learners believe that some functions of online platforms, such as "language change" and "forum communication", can enhance communication among peers and provide various forms of learning, thus promoting their active participation in learning. However, some studies have also reported that learners have a low level of emotional engagement, which can mainly be attributed to the maladaptation to the learning platform, the inability to feel the learning atmosphere, and the lack of communication with teachers.

4.3.2 Behavioral Engagement

Most studies suggest that the online environment has some negative effects on

behavioral engagement. Specifically, the average value of behavioral engagement is the lowest in the statistical analysis of each dimension of engagement and is usually lower than the overall average. This is mainly because although an online learning environment can provide learners with a certain positive emotional experience, the lack of teacher supervision is easy to cause learners' distraction, slack, and other problems, especially among students with weak learning initiative. However, some studies have improved this problem slightly by enhancing learners' social interaction and developing cooperative peer learning groups to form a relationship of mutual supervision among learners.

4.3.3 Cognitive Engagement

Existing research reports the positive effects of online environments on learners' cognitive engagement. Specifically, an online English learning environment may stimulate learners' interest in learning and promote more in-depth learning. The learning platform can record the learning activities of learners, and then play a certain supervisory role. An Online learning environment facilitates communication between learners, especially in English writing. Some platforms can realize real-time modification and other operations, which greatly realizes the application of learning strategies and cooperation strategies in the learning process, and thus improves learners' cognitive engagement.

4.3.4 The Internal Relationship Among Various Dimensions of Online English Learning Engagement

The results of online English learning research show that there is a certain relationship between behavioral engagement, cognitive engagement, and emotional engagement. The analysis of the sample literature shows that affective engagement is an important predictor of cognitive engagement and behavioral engagement. Learners' positive affective engagement can improve learners' cognitive effort in English learning, which is also reflected in learners' participation in learning and active participation in discussion. Cognitive engagement also affects affective engagement and behavioral engagement. Specifically, the more learners focus on the learning process, the more they think the learning content is cognitively challenging, the more positive

learning experience they have, and the more actions they take to complete the learning task. Some studies (Yang Gang & Dai Zhaohui, 2021) also combined the concepts of learning value and learning driving force to build an instructional design model to promote college students' online English learning engagement. This model emphasizes the relationship between learners' psychological emotions, teacher-student interaction, learning environment, and learners' online English learning engagement. It emphasizes the learning state with vitality, dedication, and concentration as the core characteristics. However, the relationship between the various dimensions of learning engagement is complex and affected by some factors such as teacher intervention, interaction mode, and learner self-efficacy, which requires more in-depth exploration.

5. Implications

Based on the current research results on online English learning engagement, this study summarizes the following three experiences, aiming to provide some inspiration for improving learners' online English learning engagement and promoting English learning.

5.1 *The Rational Use of Online Platforms Can Improve Learners' English Learning Engagement and Performance*

With the rapid development of the Internet and modern information technology, foreign language teaching is undergoing constant changes in its methods and methods. At present, mixed online and offline learning methods are gradually integrated into foreign language teaching (Chen Jing et al., 2021). Relevant studies have shown that learners' learning involvement in online learning environments is at an above-average level, and the use of online learning platforms can improve the interest of learners in the learning process, especially in writing courses, where the use of learning platforms provides convenient operations such as online collaborative writing, synchronous revision, and writing records, which enrich the learning forms and contents. Therefore, in actual foreign language teaching, teachers can make reasonable use of online English learning platforms, take the interest and initiative of students as the orientation, make reasonable arrangements of learning content, give full play to the advantages of online learning environment, deeply integrate modern

information technology and English teaching, and improve the level of students' English learning engagement through diversified learning methods, then improve the English level of learners. Of course, teachers should also pay attention to students' familiarity with and acceptance of online learning platforms to avoid the negative impact of information technology on learners' online English learning.

5.2 Pay Attention to the Social Interaction of Learners and Reduce the "Loneliness" of Online English Learning

Although online learning can improve learners' overall level of learning engagement to some extent, researchers generally believe that learners' behavioral engagement still needs to be improved. The main reason is that compared with offline teaching environments, teachers are often unable to adequately supervise learners in the process of online learning, and learners lack interaction with teachers and peers. Therefore, online learning has higher requirements for learners' self-control ability, and even some learners will show a strong sense of loneliness, obvious negative emotions, easy-to-ear mind wandering, false learning, and other low levels of actual engagement phenomenon. Given this, teachers should first attach importance to the supervision of students and give full play to the role of teachers in the teaching process, so that students can learn independently and feel the proper management and supervision of teachers. At the same time, attention should be paid to learners' own emotions and their interaction with their peers. There is a positive correlation between learners' positive emotions and the overall level of engagement. By establishing communication among peers, teachers can alleviate learners' "loneliness", create a more authentic classroom atmosphere, and enhance students' collective identity for online learning, and then mobilize the learners to participate in online English learning more actively. Finally, by arranging suitable teaching content and diversified learning activities, teachers can gradually deepen the constructive relationship between learners and learning tasks, stimulate learners' learning motivation, improve learners' internal cognitive processing, and thus increase the level of engagement in online English learning.

5.3 The Characteristics and Connections of Learning Engagement in Online English Learning Need Deep Exploration

Existing studies have investigated the characteristics of online English learning engagement and the internal mechanism of its influencing factors. However, most studies analyze the overall learning engagement level data through questionnaire data or collect learners' experiences in the learning process through semi-structured interviews, etc. Some studies also report behavioral engagement through task completion degrees and other methods. Existing studies have shown that there may be situations in online learning where learners passively complete learning tasks and their actual level of engagement is not high. Given this, the follow-up research can make use of modern information technology, observe and analyze the movement and expression data of learners in the learning process through multi-modal analysis and other methods, attach importance to the analysis of the characteristics of the learning engagement in the learning process, deeply understand the changing characteristics of learners' learning engagement in the process of online English learning, and further explore the characteristics and connections of online English learning engagement more deeply. However, there may be some problems in the analysis of engagement in the learning process, such as heavy workload and inability to conduct large-scale experiments, which still need to be further improved by researchers.

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