# Online Formative Assessment in Senior High School English Writing Teaching in China

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Abstract: Currently, information technology has been increasingly used in teaching. By reviewing the concept of formative assessment and the research status of online formative assessment at home and abroad, this study points out the shortcomings of the application of offline formative assessment in senior high school English writing teaching at the present stage, and puts forward the suggestions on the application of online formative assessment in writing teaching, with a view to expanding the modes of the application of formative assessment in high school English writing teaching and triggering the teachers' new thinking about the application of online formative assessment.

**Keywords:** Formative assessment, Online formative assessment, Information technology, High school English writing teaching

# 1. Study Background

In the 2020 revision of China's General Senior High School English Curriculum Standards of English Subject[1] (hereinafter referred to as the New Curriculum Standards), the cultivation of students' core competences is emphasized which consists of four key elements: language ability, cultural awareness, thinking capacity, and learning ability. Writing, as an extremely important way of expression and communication, plays an irreplaceable role in the cultivation of students' core competences. Through writing, students can integrate and utilize the language knowledge they have learned, practice logical thinking, and deepen their understanding and expression of different cultures, thus promoting the development of core competences in an all-round way. However, in the practice of high schools English teaching, teachers often rely too much on a single summative assessment when evaluating students' writing. This type of assessment focuses only on the final result of students' writing, and judges students' writing level simply by "scoring". Under this kind of assessment, students gradually focus on the accuracy of word spelling and the correct use of grammar rules, while neglecting the expansion of thinking, the conception of content and the exploration of different cultural connotations in the process of writing. In the long run, students' interest in English writing becomes more and more depressed, and their motivation is difficult to be effectively mobilized, making it difficult to achieve the goal of improving core competences. It is clearly stated in the New Curriculum Standards that the assessment of teaching based on the core competences of the English subject should be based on formative evaluation, supplemented by summative evaluation, and organically combined with quantitative and qualitative evaluation. In the evaluation process, the diversification of evaluation subjects should be paid attention to, i.e., not only limited to teacher evaluation, but also encouraging students to self-assessment, peerassessment, etc. The forms of assessment should also be diversified, such as observation of classroom performance, homework assessment, and assessment of project-based learning outcomes, etc. The content of the assessment should comprehensively cover the performance of the students in terms of their language knowledge, skills, and affective attitudes, etc. And the evaluation objectives should be multidimensionalized, ranging from the mastery of knowledge, improvement of competence, literacy development, and other dimensions. The evaluation objectives should also be multidimensionalized, from knowledge mastery, ability enhancement, literacy development and other dimensions for consideration. Through such an assessment system, the results should be able to comprehensively and accurately reflect the development of students' core competences in English and the actual level they have achieved. Effective assessment can not only play a role in motivating students to learn actively, but also effectively promote student learning, produce positive feedback on English teaching, and promote the continuous development and improvement of the English curriculum. Nowadays, with the rapid development of information technology, modern information technology has made new breakthroughs

and progress in the application of English teaching. Online formative assessment, as an emerging assessment method to assist offline teaching, is gradually emerging. It can take advantage of information technology to track students' writing process in real time and dynamically, and give timely feedback and guidance. For example, through the online writing platform, the system can automatically detect grammatical errors, improper use of vocabulary and other problems in students' writing, and provide corresponding suggestions for revision. And teachers can also comment on students' writing ideas and structural layout online. This approach has significant positive significance in enhancing the validity of formative assessment in English teaching. The purpose of this paper is to define the concept of formative assessment, analyze the research status of online formative assessment at home and abroad, pinpoint the problems that exist in the application of offline formative assessment in senior high school English writing teaching, and put forward suggestions for the application of online formative assessment in senior high schools English writing teaching. It is expected that through these efforts, the application of formative assessment in high schools English writing teaching can be further expanded, triggering fresh thinking of teachers on the application of online formative assessment, so as to open up new paths for the improvement of the quality of senior high schools English writing teaching and the cultivation of students' core competences in the English discipline.

#### 2. Online Formative Assessment

# 2.1 Definition of formative assessment

Since Scriven first proposed the concept of formative assessment in 1967, many foreign scholars have continued to give different concepts of formative assessment. Among the many scholars who have defined formative assessment, the definition proposed by P. Black and D. Wiliam in 1998 has had an extremely far-reaching impact. They argued that formative assessment, in a broad sense, encompasses all types of activities that can provide teachers and students with a boost to drive improvements in teaching and learning<sup>[2]</sup>. This broad definition broadens the scope of formative assessment so that it is no longer limited to traditional assessment methods, but encompasses all behaviors that contribute to the improvement of teaching and learning. In the same year, P. Black and D. Wiliam, further revised and improved this concept. They pointed out that if the evidence produced by assessment can be used by teachers as a basis for improving teaching methods and strategies, and can accurately meet the needs of students in the learning process, then such assessment is formative evaluation. This revision clarifies the core purpose of formative assessment, which is to make teaching better serve students' growth through effective feedback and adjustment. In addition, B. Cowie and B. Bell pointed out in 1999 that one of the important purposes of educational assessment is to provide valuable information for the formulation and improvement of teaching plans as well as the continuous learning of students, so as to optimize teaching and learning[3]. Therefore, those assessments aiming at promoting teaching and learning can be called formative evaluations. In China, many scholars have also devoted themselves to the interpretation of the concept of formative assessment. Wang and Zong (2020) suggested that the essence of formative assessment lies in strengthening the feedback mechanism between teachers and students<sup>[4]</sup>. Through this feedback, teachers can flexibly adjust their teaching strategies to better adapt to students' learning pace. At the same time, they can also encourage students to actively engage in peer support, learn from each other, make progress together, and guide students to carry out self-assessment and reflection to cultivate students' independent learning ability. Zhao (2013) emphasized the process of formative assessment, believing that the essential feature of formative assessment lies in the active collection of all kinds of information in the teaching process, which covers a variety of aspects such as students' learning performance, knowledge mastery, learning attitudes and so on<sup>[5]</sup>. Teachers and students utilize this information to make targeted improvements to the teaching-learning process, thus ensuring that the teaching objectives can be successfully achieved. To summarize, although the definition of formative assessment by scholars in China has some differences in expression and focus, the common points are clearly visible. They all attach great importance to the positive effects of formative assessment on improving teachers' teaching methods and enhancing students' learning effects. Moreover, with the deepening of the research, scholars in China have gradually focused on the process of formative assessment, paying more attention to the continuous collection of information, feedback and adjustment during the teaching process, so as to realize the steady improvement of teaching quality.

# 2.2 Studies on online formative assessment

Summative assessment is an important means to test the teaching results, but it cannot evaluate the

teaching process, while formative assessment makes up for this deficiency. Through various means and methods of formative assessment, teachers can continuously obtain feedback information, timely adjust the teaching process or method, and promote students' efficient learning[6]. Therefore, formative assessment has been paid more and more attention in teaching and learning. Meanwhile, with the development of science and technology and the popularization of the Internet, modern information technology has begun to be used in the field of education and teaching, and scholars at home and abroad have begun to try to combine information technology with formative assessment and develop online formative assessment models and tools. At the same time, scholars at home and abroad began to explore its effectiveness, for example, Dutch scholars Fabera and Visscher (2018) conducted a randomized trial to investigate the effectiveness of the digital formative assessment tools (Digital formative assessment tools) called "Snappet" on students' spelling achievement in third grade (8-9 years old)<sup>[7]</sup>. Wilson et al. (2011) piloted the effectiveness of computer-assisted formative assessment in a first-year undergraduate geography course, with feedback questionnaires indicating that over 95% of students reported that computer-assisted formative assessment (in this case, practice tests) helped them identify their strengths and weaknesses, and prepared them for midterm and final exams[8]. The findings suggest that computerassisted formative assessment has a positive impact on student achievement. Gikandi et al. (2011) conducted a systematic review of the research literature on online formative assessment in higher education, and found that online formative assessment enhances learner engagement by giving formative feedback and valuable learning experiences, and enhances learner- and assessment-centered attention and assessment-centered focus<sup>[9]</sup>. Liu and Wu (2020) explored the cloud-based application model of formative assessment in English language teaching, constructed a matching path between formative assessment paradigms, teaching sessions, and cloud-based assessment platforms, and proposed that compared with traditional paper-and-pencil exams, cloud-based assessment is driven by artificial intelligence and data mining, and is able to provide instant and accurate analysis and feedback to effectively diagnose the effectiveness of learning and teaching<sup>[10]</sup>.

#### 3. Current Assessment Issues In Senior High School English Writing Teaching

#### 3.1 Only focus on the form of assessment

In 2013, Zhang Jianqin conducted an important study, which adopted an interview-based research methodology and sampled 283 teachers from 72 high schools nationwide, with the aim of exploring indepth the implementation of formative assessment in senior high schools English teaching<sup>[10]</sup>. The results show that all the interviewees, when talking about formative assessment, only mentioned the forms of assessment, such as exams and homework checking, but did not touch upon the substance of the assessment, including the specific assessment of students' mastery of knowledge and utilization of skills, and did not mention how to give effective feedback and formulate subsequent improvement measures based on the assessment. This phenomenon is equally common in senior high schools English writing instruction. Under the influence of current educational concepts, many teachers have realized the interactive advantages of formative assessment and have actively integrated it into the process of writing teaching. For example, in the writing lessons, teachers will set up teaching activities for students' peer assessment and self-assessment, hoping to promote communication and self-reflection among students. However, in practice, many problems have been revealed. Most of the peer assessment and selfassessment among students are only mechanically based on the teacher's pre-set evaluation criteria, scoring their classmates' and their own writing achievements on the evaluation scale, or completing them with star ratings of a scoring nature. More critically, once the scoring is over, the whole assessment process is terminated. In this process, teachers seldom go into depth to give students specific and targeted suggestions for improvement, nor do they give students a clear understanding of how to optimize their own writing by way of modeling. As a result, students end up with a result in the form of a mark, rather than effective feedback that can guide them to improve their learning. Due to the lack of detailed feedback, students are not able to clarify in which direction they should work on their writing next and which areas they should focus on improving. In the long run, even though the formative assessment seems to exist in senior high schools English writing teaching, in reality, students do not get substantial help from this process. Students are unable to realize the gradual improvement of their writing ability with the help of assessment, and the teaching effect is therefore greatly reduced, unable to achieve the expected teaching goals.

#### 3.2 Neglect student initiative

Formative assessment is an evaluation process in which teachers and students participate in the teaching process and provide timely feedback to improve teaching and learning, and its purpose is to help teachers and students clarify the direction of their next efforts in order to achieve greater development and progress. This is the most obvious difference with summative evaluation[11]. Therefore, in the practical application of formative evaluation, students, as one of the main subjects of evaluation, should have their initiative fully stimulated, so that they can actively participate in the evaluation process, enhance their self-knowledge, clearly understand their own strengths and weaknesses, and prompt them to actively explore learning strategies suitable for themselves, thus greatly enhancing their independent learning ability. However, in the practice, students are still in the position of passively accepting assessment in most cases. For example, in formative assessment activities, whether the assessment can work depends largely on whether teachers and students are clear about the learning objectives and assessment criteria. So, teachers should play the role of a guide, leading students to analyze the curriculum standards and the syllabus and other authoritative documents to help students deeply understand the specific requirements and evaluation criteria for high school students' writing ability and goals. In this way, students can adjust their writing ideas and optimize their writing methods according to these standards in the process of writing, so as to realize the gradual improvement of writing level. However, in reality, before teaching writing, most teachers seldom organize students to discuss the detailed requirements and evaluation criteria for writing ability and objectives according to curriculum standards and examination syllabus. Most teachers organize the standards themselves and show them directly to students as the basis for mutual assessment and self-assessment. However, since students are not familiar with the evaluation criteria, it is difficult for them to monitor themselves during the writing process to effectively self-assess themselves, which also reduces the effect of peer assessment, and makes the role of formative assessment in high schools English writing teaching not given full play.

## 3.3 Prefer one-sided assessment

The New Curriculum Standards emphasizes the cultivation of English core competence, which includes language ability, cultural awareness, thinking capacity, and learning ability. Teaching assessment should be based on the core competence of the English subject, the assessment content should be comprehensive, and the evaluation results should be able to comprehensively reflect the status of students' development of the core competence of the English subject and the level they have reached. Formative assessment includes, by implication, the evaluation of students' English learning attitudes, abilities, thinking qualities, cultural sensibility, etc.<sup>[12]</sup>. However, in the current senior high schools English writing teaching, the content of formative assessment mainly focuses on the knowledge and skillcentered aspects such as whether the articulation between sentences and paragraphs is natural and fluent, whether the use of language fits the contextual requirements, and whether the central idea is clear and precise. Although this assessment can standardize students' writing skills to a certain extent, there are obvious limitations because students' enthusiasm and concentration when facing the writing task, as well as their resilience in overcoming writing difficulties, and higher-order abilities such as teamwork and creative thinking are not reflected in the assessment. As Long (2021) pointed out, the assessment of cognitive knowledge is emphasized, but the non-cognitive aspects of students' emotions, attitudes, and values are seldom evaluated<sup>[13]</sup>. The mastery of knowledge and skills is emphasized, but the assessment of higher-order competencies and comprehensive literacy, such as teamwork and creative thinking, is neglected. One-sided formative assessment cannot fully reflect the whole picture of students' writing learning, and it will also hinder the comprehensive improvement and long-term development of students' core competence in the English subject.

# 4. Online Formative Assessment In Senior High Schools English Writing Instruction

For the many problems existing in the current application of offline formative assessment in senior high schools English writing teaching, trying to combine information technology with formative assessment and innovating an Internet-based online formative assessment model may be a feasible solution.

#### 4.1 Feasibility

First of all, with the rapid progress of the times, science and technology have become a powerful

engine to promote changes in the field of education, which provides a solid platform support and advanced technology guarantee for the extensive implementation of online formative assessment. As stated by Liu and Wu (2020), informatization, digitization, networking, cloud computing and artificial intelligence technologies have undoubtedly provided great convenience to modern foreign language education<sup>[14]</sup>. In recent years, there are more and more teaching platforms such as MOOC, Rain Classroom and Micro-classroom that are beginning to be applied to subject teaching, through which student-teacher as well as student-student interactions have increased, and students themselves can better track their own learning process and effects. Based on more and more sophisticated online platforms and updated statistical and analytical systems, the diversity, feasibility, and accuracy of formative assessment can be improved.

Secondly, the enthusiasm of the stakeholders of educational evaluation in China for the use of new scientific and technological tools is not high, the integration of science and technology into the teaching and educational assessment process is not deep, and the advanced scientific and technological tools have not played their due role and function in the educational evaluation process<sup>[15]</sup>. But looking around the globe, the results of the practice of applying emerging technologies to teaching evaluation provide valuable insights for the realization of the integration of science and technology with teaching evaluation in depth in China. Among the many practical achievements, Learning Analytics Dashboards is a valuable example which provides students and teachers with comprehensive feedback on student learning through visualization. Specifically, at the student level, the dashboard shows students' learning behaviors, such as study time allocation and course participation and presents students' performance data, so that students can clearly understand their mastery of different knowledge points. And tracks students' learning progress to help them identify their own learning trends. The provision of such information helps students to raise their awareness of learning, so that they are more aware of their own learning status, thus making self-regulation and ultimately improving their academic performance. For teachers, the Learning Analytics Dashboard is like a right-hand man, and teachers can use the visual feedback to gain insights into the problems in the teaching process, and then improve the teaching methods and adjust the teaching content, and can also optimize the evaluation of students based on real-time feedback from students, improve the efficiency and quality of classroom management, and make teaching activities more in line with the actual needs of students. In addition, Germany also has worthwhile experience in the integration of education assessment and science and technology. With its own scientific and technological advantages, Germany has developed scientific and highly operational evaluation tools and applied them to the field of pre-school education for 0-6 years old. In this process, Germany has constructed a quality evaluation system centered on orientation quality, structural quality and process quality. This system utilizes advanced technology to accurately assess all aspects of preschool education.

To summarize, online formative assessment has significant application possibilities in senior high schools English writing teaching. On the one hand, the rapid development of science and technology provides strong support for it. On the other hand, despite the shortcomings in the application of emerging technological tools in educational evaluation in our country, successful practices globally bring inspiration.

## 4.2 Necessity

First of all, with the deepening development of informatization and digitalization, information technology has been widely used in modern education, the teaching mode assisted by network technology and multimedia technology is becoming more and more mature, network resources have become an important guarantee for the construction of curriculum resources, and in recent years, new teaching environments supported by information technology, such as online learning and network courses, have also become more and more popular. When teaching modes and teaching platforms are becoming more and more diversified, online and offline blended teaching is gradually being promoted, students' learning is gradually extended from the classroom and school to after-school and out-of-school, and there is a large increase in students' learning data and feedback data, it is obvious that only through the traditional teacher-student mutual assessment with evaluation scales as the main form, student-student mutual assessment, and students' self-assessment cannot be adapted to today's students' new forms of learning and teaching. Without the help of information technology, teachers are unable to efficiently process a large amount of feedback information, and students are unable to get timely and effective feedback. Therefore, as pointed out in the New Curriculum Standards, teaching assessment is an important part of the English curriculum, the purpose of which is to promote the learning of English, improve the teaching of English, improve the design of the curriculum, and monitor the quality of academic achievement. Teaching assessment is for the service of teaching and student learning, and needs to be adapted to

teaching and learning. When the content and learning methods of teaching and learning change with the times, the methods and means of assessment need to be updated as well.

In this day and age, there has been a profound shift in the definition of talent. The talents needed in this new era are not only limited to the accumulation of knowledge and skills, but also need to possess multiple abilities such as lifelong learning, innovative thinking, collaborative communication and human-computer interaction. However, in the face of significant differences in individual students, it is often difficult for teachers to give accurate feedback and effectively promote students' growth in these key competencies when evaluating students using traditional single standards. Online formative assessment based on information technology provides a valuable solution to this dilemma. With the help of continuous and objective data analysis, online formative assessment can present a comprehensive and in-depth picture of students' learning process and development. For example, by analyzing student' interaction data, completion of assignments and active participation in discussions on the online learning platform, teachers can gain a precise insight into students' strengths and weaknesses in various competency dimensions. Based on these data, students can also clearly understand their own learning status and adjust their learning strategies in a more targeted manner. It can be seen that the brand-new requirements of the society for talent cultivation fully emphasize the importance and necessity of online formative assessment based on information technology, which provides a powerful support for the cultivation of high-quality talents adapted to the development of the times.

#### 4.3 Application Recommendations

#### 4.3.1 Using diversified platforms to enhance student initiative

Formative assessment emphasizes continuous, timely and dynamic feedback. Through such feedback, teachers can precisely adjust their teaching strategies and students can effectively improve their learning methods. However, if the feedback is just a formality and lacks substantive content and practical suggestions for improvement, then formative assessment will not be able to play its proper role. In senior high schools English writing lessons, there are many tasks to be learned, and classroom time is extremely limited. When only a single offline formative assessment is used, the two-way feedback between the teacher and each student is often only a formality. It is difficult for teachers to give full attention and targeted guidance to each student in the classroom, resulting in feedback that lacks depth and practicality. After class, due to the heavy pressure of lesson planning, teaching and research and other tasks, it is even more difficult for teachers to continue to follow up on the interaction between students and teachers and students, making the coherence and effectiveness of formative assessment greatly reduced. However, the introduction of interactive platforms supported by cloud computing and digital technology, such as WeChat Group, Rain Classroom, Questionnaire Star, Tencent Conference, etc., has brought about a turnaround in the formative assessment of high schools English writing classes. These platforms greatly enhance the interactivity and continuity of formative assessment in writing classes, ensuring that students can reap feedback with substantive content and practical suggestions for improvement. In an English writing class, for example, before the start of the lesson, the teacher can launch a questionnaire on students' familiarity with the writing topic using Questionnaire Star. The powerful data analysis function of Questionnaire Star can quickly present students' familiarity with the topic to the teacher in the form of intuitive data. Based on this, teachers can flexibly adjust the teaching methods and classroom activities to ensure that the teaching is more in line with the actual needs of students. At the same time, students can also use the online platform to make preliminary attempts at writing on the topic before class, and the platform automatically retains these data for comparison with the results of the writing done after class, so that both the students and the teacher can gain a clear insight into the progress and shortcomings of the students. Entering the classroom teaching session, students can record their output in real time on the online platform at each stage of output discussion. With the interactive features of Rain Class, crossgroup students can view each other's ideas and broaden their thinking. Teachers can capture students' thinking dynamics in real time through the platform, adjust the teaching rhythm in time, and give immediate feedback. For example, when the majority of students are found to have deviations in the elaboration of a certain point of view, the teacher can immediately provide targeted explanations to guide students to correct their misconceptions. After class, after students complete the writing task, they can communicate with their classmates through social platforms such as WeChat groups, share their writing experience with each other, and put forward constructive suggestions for revision. This kind of peer interaction can not only stimulate students' interest in learning, but also allow them to examine their own work from different perspectives. Based on the concept of "multiple drafts and repeated revisions" advocated by the process writing pedagogy, teachers can make use of platforms such as Tencent Conference to meticulously revise students' essays online and keep records of each revision. Both

students and teachers can review the whole revision process through the platform, clearly seeing the trajectory of students' progress and providing valuable experience for subsequent learning.

Diverse interactive platforms also significantly enhance students' initiative in online formative assessment. As pointed out by Chen (2017), the all-round and three-dimensional teaching constructed by online learning platforms, micro-classes flipped classrooms, catechisms, and mobile learning platforms enable students to learn more freely and individually, so that students can choose their own learning methods and adjust their learning progress according to their own specific situations<sup>[16]</sup>. In such an environment, teachers are no longer the absolute dominant player in the formative assessment process, and students are able to actively access their own learning data analysis, as well as evaluation opinions from peers and teachers online at any time, so as to more actively plan and adjust their own learning strategies, and realize self-improvement and growth.

#### 4.3.2 Promoting the comprehensiveness of evaluation content

The assessment content of offline formative assessment tends to be limited to the "language ability" part of core competences, focusing on the consideration of students' grammatical usage, vocabulary spelling, and smoothness of utterances, while the assessment of students' other core competences dimensions, such as cultural awareness, quality of thinking, and learning ability, are relatively lacking. Cao (2023) pointed out that core competences belong to a kind of generalized competence, which is more or less manifested by students in different disciplines, and it is very necessary to have disciplinary coherence under the vertical and horizontal assessment system<sup>[17]</sup>. The disciplines do not exist in isolation from each other, but are interrelated and interact with each other. The emergence of online platforms builds a bridge of communication and collaboration for teachers of different disciplines, enabling them to conveniently participate in the process evaluation of students' development of the same ability. Taking the cultivation of students' logical thinking and innovation ability as an example, mathematics and other science subjects pay much attention to the exercise of students' "logical reasoning" ability in daily teaching and practice, and the students' thinking process and innovative solutions in the process of solving problems can be easily reflected and recorded in class and homework. However, in English writing teaching, it is difficult to accurately capture and effectively measure students' logical thinking and creativity. Logic in English writing is not only reflected in the construction of the structure of the essay, but also in the elaboration of ideas and the development of arguments, which are often evaluated in a subjective manner and lack objective measurement standards. At this time, the evaluation feedback of science teachers can provide valuable reference for the formative assessment in English writing teaching. With their professional perspective on logical thinking training, science teachers can assess students' logical thinking and creativity in English writing from different perspectives. Interaction between different disciplines allows teachers of different disciplines to participate in the evaluation of English writing teaching, greatly expanding the scope of the subject of evaluation. Language teachers can provide evaluations in terms of literary appreciation and the artistry of language expression. History teachers can give insights from the perspective of cultural background and the use of historical knowledge. The diversification of evaluation subjects makes the evaluation content more comprehensive, which is no longer limited to a single evaluation of language ability, but covers all aspects of students' core literacy, providing richer and more three-dimensional feedback information for English writing teaching, helping teachers to fully understand students' comprehensive ability, so as to realize more accurate teaching guidance and promote students' all-round growth in high school English writing learning.

In addition, offline formative assessment mainly focuses on teachers and students, but the emergence of online assessment tools and platforms has opened up new ways for parents to participate. Due to the tight classroom schedule and limited school hours, it is difficult for teachers to monitor students' learning attitudes and emotional states in a comprehensive and "real-time" manner. However, with online platforms, parents can keep a close eye on their students' learning performance at home. For example, parents can record the length of time students study and observe their concentration level through the online learning platform, and then provide this information to teachers. This not only helps teachers to have a comprehensive understanding of students' learning status, but also extends the time span of formative assessment from in-school to out-of-school, which greatly enhances the continuity of assessment. At the same time, the feedback provided by parents on students' mood swings and learning attitudes supplements the information that teachers find difficult to capture at school, making formative assessment more comprehensive. In this way, teachers can be more precise in adjusting their teaching strategies, truly tailoring their teaching to the students' needs, and assisting them in all aspects to realize growth and progress in high school English writing learning.

#### 4.3.3 Enhancing teachers' informatization competences

Online formative assessment can make up for many of the problems of offline formative assessment, but the smooth and effective implementation of online formative assessment requires teachers to improve their own information technology literacy. Sullivan (2021) and others have shown through a pilot study that there is a statistically significant correlation between the computer-based formative assessments' (CBFA), and there was a statistically significant correlation between usage rates and teachers' comfort with technology, teachers' beliefs about technology, and teachers' autonomy<sup>[18]</sup>. Teachers with high assessment literacy and strong assessment skills have the ability to guide and motivate students to learn in a targeted way and achieve the purpose of promoting learning through the analysis of formative assessment data<sup>[19]</sup>. Online formative assessment applied to high school English writing requires teachers to familiarize themselves with the use of online assessment platforms, learn to analyze data information, buttress online and offline formative assessment activities, and consciously promote the model of online formative assessment.

#### 5. Conclusion

The improvement of English writing ability requires students and teachers to put in a long time of effort. Formative assessment plays an important role in high school English writing teaching as an assessment that emphasizes the process. The effective implementation of formative assessment in writing teaching often requires teachers to spend a lot of time and energy. Online formative assessment based on information technology can help teachers efficiently obtain students' feedback information, increase the interaction between students and teachers and students, improve the status quo of formative assessment that only focuses on the form, increase the students' initiative in assessment, expand the subject of assessment, and make the assessment content more comprehensive, more effectively realize the teaching purpose of high school writing teaching and the cultivation of students' core competences.

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