

An empirical study on the development of college students' English self-learning ability using formative assessment

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Abstract: Self-learning ability, also known as self-directed learning ability, means that students actively learn knowledge and are able to complete the formulation of learning objectives and learning plans, the selection of learning contents and learning methods, and the implementation of learning monitoring and evaluation on their own. A lot of experimental data show that students with higher self-learning ability have higher learning quality and efficiency. English is a compulsory course for college students as highly qualified people. However, college students tend to take final exams and Level 4 or 6 as the main criteria for English evaluation, not realizing the importance of English in subsequent study and work, and the test-taking consciousness is very obvious. For this reason, experts and scholars at home and abroad have proposed to introduce formative assessment into college English teaching to cultivate college students' self-learning ability and lay the foundation for their lifelong learning. In order to better verify the effect of formative assessment on the cultivation of college students' English self-learning ability, the article selects four parallel classes of a university majoring in mechanical engineering as the research object, and sets up a control class and an experimental class, in which formative assessment is introduced in the experimental class and the traditional summative assessment is also used in the control class. By analyzing the English self-learning ability of students in the experimental and control classes before and after the experiment, the role and effect of formative assessment were verified, and data support was provided for the application of formative assessment in college English teaching.

Keywords: formative evaluation; College English; the ability to study independently

1. Introduction

Assessment is a very important part of university English teaching and learning, and is of high importance to all participants in the classroom. For teachers, they can better understand students' learning through assessment; for students, they can understand their knowledge mastery through assessment; for teaching managers, they can understand the current situation and problems of teaching management through. Through the analysis of the existing teaching assessment, the summative assessment is mainly focused on the students' performance, ignoring the differences between different students [1]. At the same time, the ranking of grades also affects college students' self-esteem to a certain extent, which is not conducive to the cultivation of college students' motivation in the process of English learning. In the context of quality education, it is urgent to explore a new assessment model to realize the assessment of the whole English learning process of college students, such as language, cognitive and psychological development, etc., and to improve the comprehensiveness and scientificity of its assessment.

Through the efforts of experts and scholars at home and abroad over the years, formative assessment has gradually developed and has been tested in several regions for reform. And the introduction of the Teaching Standards for College English Courses further clarifies the role of formative assessment and requires that the assessment methods adopted by universities should be able to achieve the assessment of students' ability to apply English, especially oral communication and writing skills [2]. At the same time, it is required that formative and summative assessments be combined to achieve a comprehensive assessment of the process and results of English learning for university students.

Formative assessment is a kind of stereotypical assessment, which focuses on the assessment of

students' learning process and can guide college students to learn actively and become independent learners rather than passive learners. Currently, there are many theoretical studies on formative assessment, but there is a lack of empirical data. To this end, this paper seeks to verify the role and effectiveness of formative assessment in the development of college students' self-directed learning ability by means of empirical analysis.

2. The current situation of university English teaching and evaluation

2.1. Current status of English teaching at university

With the increase of inter-country communication, the status of university English has been rising and has received a lot of attention. At the same time, the teaching focus of college English should shift from traditional teaching to learning, fully respect the subjective status of students, emphasize the autonomy of student learning, and introduce formative assessment. On the one hand, this is an inevitable requirement for the development of information-based society. The development of technology makes the world enter the information explosion era, both enterprises and employees are aware of the importance of learning, and it is totally insufficient to rely only on the knowledge learned during school, and it is necessary to establish the concept and awareness of lifelong learning and continuously improve students' self-learning ability and level. On the other hand, this is the requirement of quality education. In the traditional teaching process, teachers are the main body and students learn passively, and students' independent learning ability is poor. Under the background of quality education, students become the main body of learning, which requires them to have certain self-learning ability and to monitor and evaluate their own learning situation in time to achieve the purpose of happy learning[3]. English, as a compulsory course for college students, has a curriculum of two academic years. Through the analysis of the current situation of English teaching in college, the following aspects are presented: (1) Single form of classroom teaching.(2) Lack of innovative spirit among teachers.(3) Excessive focus on the 4-6 exams[4]

2.2. The current situation of university English teaching evaluation

At present, the English assessment of college students includes final exams and Level 4 and 6 exams, both of which are summative assessments, i.e., the assessment of students' English learning effect through a test paper. Through communication with college students, most of them do not like the existing assessment methods, and they think that the existing assessment methods do not really reflect the students' learning and teachers' teaching, and do not play a role in promoting the students' learning of English. A good assessment method should be able to motivate college students to learn English to the greatest extent possible, so that they can experience the fun of learning English and turn from traditional passive learning to independent learning[5]. Therefore, formative assessment has received renewed attention in the hope that it can guide college students to arrange and manage their English learning on their own and lay the foundation for their lifelong learning of English knowledge.

However, in the process of investigation, it was found that very few schools or teachers use formative assessment in English teaching. On the one hand, formative assessment requires more time and effort, demands higher quality level of teachers, disproportionate effort and reward for teachers, and low motivation for teachers to apply it; on the other hand, the application of formative assessment requires a large amount of textual record data, and there is no funding source for the purchase of these record books, so it is unlikely that students will purchase them voluntarily. In addition, the preservation of these data requires special space and personnel, otherwise the comprehensiveness of the data will be affected, and there are even problems such as data damage or loss, which is not conducive to the subsequent analysis and application of process data.

In a word, college English is still dominated by summative assessment, the application of formative assessment is less, and the content of assessment is mainly based on the degree of knowledge mastery, ignoring the cultivation of college students' self-learning ability. The purpose of teaching evaluation is to classify grades rather than to promote students' overall development.

2.3. Analysis of the current situation of college students' English self-learning

Self-learning is one of the abilities of college students in learning management, and this ability is not inherent but acquired through acquired training. Influenced by factors such as university expansion, the

enrollment score line of university has been decreasing, and the quality and learning ability of college students show a large variation. At the same time, after entering the university, their state of mind has changed greatly, and they spend their main energy on club activities or games, etc. They do not pay much attention to the learning of English knowledge, and attend classes just to cope with the exams, and completely give up pre-course pre-study and post-course review. Even so, during class, there are problems such as inattentive listening and plagiarism in homework[6]. Further investigation on college students' English learning methods reveals that they are also mainly traditional passive learners, with high dependence on teachers, mechanical memory, passive acceptance, and very poor self-learning ability, and have not developed the consciousness of active learning at all. Coupled with the lack of pressure from college students to go on to higher education, they cannot give maximum play to students' subjective initiative in English learning and completely lose the motivation of self-learning. In conclusion, college students' English self-learning consciousness is very poor and lack of motivation for self-learning, so teachers urgently need to introduce suitable methods to guide and continuously improve college students' English self-learning ability.

3. The difference between formative evaluation and traditional educational evaluation

Formative assessment is an evaluation conducted during the teaching process, which mainly realizes the assessment of students' process, so that problems in the teaching process can be identified and corrected in time to ensure the achievement of teaching objectives. Before using formative assessment, teachers should first complete the decomposition of the teaching structure of the course and set the teaching objectives of each unit. Then, according to the comparison between the results of formative evaluation and the expected teaching objectives, they can find the gap between the plan and the reality, and then correct and remedy the teaching activities. Practice shows that only when teachers and students have clear goals, they can better adjust their plans and implementation means to ensure the achievement of the goals[7]. Summative evaluation is a one-time evaluation before the end of teaching, often using scores as the evaluation standard, so as to achieve a comprehensive evaluation of students' learning in a certain semester, to verify the effectiveness of students' learning and the quality of teachers' teaching. Process evaluation and summative evaluation interpenetrate and interact with each other, and their ultimate purpose is to promote the improvement of teaching quality and the overall development of students. However, the two present certain differences, which can be analyzed in terms of evaluation purpose, evaluation subject, evaluation content and evaluation means.

4. The role of formative assessment tools in the development of college students' self-learning skills

Constructivist theory emphasizes the self-construction of the learner and believes that any knowledge is learned not by being taught, but by acquiring it autonomously. Humanistic theory also emphasizes the role of methods in knowledge learning, and believes that mastering methods of learning is more important than mastering knowledge. Self-directed learning theory, on the other hand, points out that students should be able to create personalized learning goals that suit them, take responsibility for their learning, choose methods that suit them, and actively engage in self-directed learning. At the same time, the supervision, reflection and evaluation of self-learning process should be strengthened. Formative evaluation focuses on the evaluation of college students' learning process, which can guide and help students form good independent learning abilities and habits from multiple perspectives and levels. The tools that can be used in the process of formative evaluation include evaluation scales, study plans, class records, reading notes, weekly study diaries and study files, and college students can improve their self-learning ability through the reasonable application of evaluative tools[8].

5. An experimental design of formative assessment in the development of college students' English self-learning ability

In view of the fact that the existing research is mainly theoretical and lacks experimental data support, this chapter mainly goes for verification by means of experiment. The experimental process is advanced with the selection of experimental subjects, the identification of realization classes, and the investigation of college students' English self-learning before the experiment. Then, the students of the experimental class were taught with the formative assessment tools, and the effectiveness of formative teaching was verified by the survey scale of self-learning ability in the experimental and control classes.

5.1. Selection of experimental subjects

In the process of this empirical analysis, four parallel classes of the 2021 class of a university majoring in mechanical engineering were selected as experimental subjects. Mechanical engineering is the dominant major in our university, with high entrance examination admission scores, high overall quality level of students, and very problematic learning status. The students of the four classes are shown in Table 1 below.

Table 1: Statistical results of students in four classes of mechanical manufacturing

	Class 1	Class 2	Class 3	Class 4
Total number of students	30	30	30	30
Number of female students	8	7	7	6
Average score of English in college entrance examination	111.6	112.2	112.4	112.1

The school uses a standard class of 30 students, and the total number of classes is the same. The number of female students in the class was relatively small and the number of male students was larger due to the influence of the mechanical engineering profession's own characteristics. Through the summary analysis of the students' English scores in the classes, their average scores reached 112 and were very close to each other, which met the requirements for the English level of the experimental subjects in this experiment. Formative assessment tools were introduced in classes 1 and 2 as experimental classes during the experiment; classes 3 and 4 as control classes also used the traditional summative assessment. The experiment was conducted for a full teaching semester from September 2022 to January 2022.

5.2. A survey on the self-learning situation of English among college students before the experiment

Before the experiment began, we investigated the self-directed learning situation of college students in four classes using the "Autonomy of Learning Scale Test Book" developed by Mr. Pang Weiguo. The reliability and validity of the scale were verified by previous experiments, which showed that the scale can evaluate and measure the self-learning ability of college students, provide reference for the analysis of individual differences in the process of English learning, the evaluation of academic performance and the preliminary diagnosis of students in difficulty, and improve the relevance of education and guidance for college students.

There are 208 questions in the scale to investigate the awareness and ability of English self-learning among college students in seven aspects: motivation, learning content, learning method, learning time, learning process, learning result and learning environment. Combined with the specific situation of this study, the scale was sorted out during the experiment, and 100 of the questions were selected to form the final questionnaire, which was sent to students in four classes of mechanical engineering. The questions in the questionnaire were set with 5 options: never this way, rarely this way, sometimes this way, often this way, and always this way, using a 5-point scoring rule with scores from 0 to 4 and a total score of 400. Table 2 below gives the statistical results of the scores of the four classes.

Table 2: Statistics of the scores of the four classes of mechanical manufacturing

Classes	Highest Score	Lowest Score	400-240 points (number of people)	240-120 points	Below 120 points
Class 1	290	86	7	15	8
Class 2	292	96	8	16	6
Class 3	288	92	7	16	7
Class 4	296	98	7	13	10
Total			29	60	31

The data in Table 2 shows that the self-learning ability of students in the four classes of mechanical engineering is basically the same, which meets the basic requirements of this experiment for students' English self-learning ability. Further analysis of students' scores in the four classes showed that the total number of students scoring above 240 was 29, accounting for 24.1% of the total number of experimental subjects; the number of students scoring below 240 was 91, accounting for 75.9% of the total number of experimental subjects, of which 31 students scored below 120, accounting for 25.5%. It can be seen that although the average English scores of the students in the four classes were high, only 24.1% of the students had some self-learning ability, and most of the remaining students had poor self-learning ability, or even basically no self-learning ability. The chosen major of machinery manufacturing is the strength

of our school, and the students' English scores in the college entrance examination are generally higher than those of other majors. The English self-learning ability of the students in the major of machinery manufacturing is still like this, and the ability of the students in other majors is not optimistic. In short, the English self-learning ability and awareness of college students are very poor, and the main driving force for their high English scores in the college entrance examination is the college entrance examination and teachers, and this learning method and mode is not conducive to the sustainability of their English learning.

5.3. *Experimental materials and periodicity*

The English textbooks at the university are not all standardized, and the choice is made by the school teachers themselves. In addition to passing the English exam at the end of the semester while in school, students can also take the nationally standardized Level 4 and 6 exams. In September 2022, our English course chose the textbook "New Vision University English", which is moderately difficult and easy to use, and the three aspects of knowledge are explained in terms of sight, sound and speech, which facilitates the application and implementation of formative assessment in English courses. The experimental time frame is from September 2022 to January 2023, about 4 months, with 6 weekly lessons and 108 total lessons in the experimental cycle. The introduction of formative assessment tools in the experimental classes during the experimental cycle seeks to enhance the interest of the experimental class students in learning English, cultivate the awareness and ability of the experimental class college students in independent learning, guide the experimental class college students to master the methods of independent learning, change from traditional passive learning to independent learning, develop good self-learning habits, and lay the foundation for the lifelong learning of college students' English knowledge.

5.4. *Practical operation*

There are many kinds of formative assessment tools. According to the characteristics of English learning of machine building students, six kinds of tools were selected during the experiment: evaluation scale, learning plan, classroom record, reading notes, weekly learning diary and learning file.

5.4.1 *Practical operation*

The evaluation scale mainly completes the evaluation of college students' English learning at a certain stage, and the evaluation subjects include teachers, students themselves and their classmates. In the experimental process, evaluation scales were introduced mainly in the daily retelling and weekly talk sessions, and the formative evaluation scales for daily retelling are given in Table 3 below. During the learning process, the teacher asked students to retell the text they had learned that day according to their own understanding, and the length of the retelling was usually about 2 min.

Table 3: Daily retelling evaluation scale

Classes:	Name:	Date:	etc.: (1, 2, 3, 4, 5)
Pronounce accurately, speak clearly, speak at a moderate speed, and have a generous posture			
Express the content of the text completely and accurately in their own words			
Repeat the language coherently, without errors, pauses and repetitions			
Correct word choice and grammar			
Total			

While Student A is retelling, the teacher and other students evaluate his or her retelling. Student A also evaluates his or her own retelling after completing the retelling. The total score of Student A's text retelling is obtained by summing up the scoring of the three subjects. With five students selected for daily retellings, a standard class of 30 students can complete one round in two weeks. A typical semester has 18 teaching weeks, and each student has about 9 opportunities to retell during the semester of the selected experiment. The average score of the nine retellings was taken at the end of the semester as their final retelling score. The students were asked to read a short essay each week and give their opinions or thoughts on the content of the essay for 5 min. The students were given the opportunity to do this about 3 times a semester, and the evaluation scale for the weekly talk is given in Table 4 below.

Table 4: Weekly talk evaluation scale

Classes:	Name:	Date:	etc.: (1, 2, 3, 4, 5)
Pronounce accurately, speak clearly, speak at a moderate speed, and have a generous posture			
Express the main idea of the short essay in your own words			
The chosen phrase is coherent, without errors, pauses and repetitions			
The wording and grammar are correct			
The selected text has a positive effect on the students			
Total			

The weekly talk is relatively difficult and requires students to use their class time to select and read short texts. At the same time, the 5min presentation time requires students to organize their thoughts and language in advance, which requires a high level of students' overall English ability. However, during the experiment, all of the 60 students in the two experimental classes, except for three students who were particularly poor in English, basically completed the task of the weekly talk very well. It can also be seen that the students put in their own efforts in class in order to complete the task, and the result is not important anymore, but the important thing is that the students have formed a good learning attitude through this link, which plays a positive guiding role for the students. Similarly, the evaluation subjects of the weekly talk include teachers, students and classmates, and the total score of the three subjects' scores is the total score of students' weekly talk. Before the end of the semester, the scores of the evaluation scales of the students in the two experimental classes were summarized and analyzed. For example, the scores of students in the two experimental classes increased over time, and although the increase in the scores of each review was not significant, the difference between the scores of the first and the ninth review reached 6.9 points. This shows that the students in the experimental class made great progress in their English expression skills through the "daily retelling" session. Through the observation of the retelling session and the students' communication, they all valued each opportunity to retell at the podium. Although their expressions were not particularly fluent and their pronunciation was not standard at the beginning of the session, they saw their gaps and continued to improve. Similarly, for the "Weekly Talk" session, many students spent a lot of time in the first few weeks searching for short texts, and the process of searching was also a process of building students' sense of independent learning, which was basically non-existent before the implementation of formative assessment.

5.4.2 Practical operation

The application of learning plans can help students better plan and organize their English knowledge, and there are more types of plans that can be made according to the duration of the plan. In the experimental process, students are mainly guided to make semester plans and weekly plans, the former of which is done mainly through short essays, asking students to express their learning goals for the semester in one paragraph, as well as the methods and tasks they choose to achieve the learning goals; the latter is given in the form of a scale with specific learning tasks.

After the plan is made, the teacher monitors the implementation of the plan, for example, by asking the students before each class about the completion of the plan, analyzing the reasons why the plan is not completed and the measures that can be taken to solve the problem. Students are expected to keep accurate records of their plans and to ensure that they are authentic.

Table 5: Weekly study plan developed by a student

Classes:	Name:	Date:	Weekly:
Text memorization		Lessons 3 and 4 of the textbook	
Word memorization		Lessons 3 and 4 of the textbook	
English study time in class		45 minutes	
Number of short texts to read in class		More than 3 articles	
Conclusion		1.Poor fluency in reciting texts 2.Reading 1 short article, not completed the planned number	

The Table 5 analysis of the student's weekly plan shows that he has basically completed the weekly plan he made, but there are still some parts that are not completed. The teacher should promptly guide the student to analyze the reasons for not completing the plan, and then make appropriate adjustments

according to the overall weekly learning situation, so as to ensure the completion of the student's weekly learning plan.

5.4.3 Class records

The classroom is the main site of English teaching activities and the main place for students to learn English knowledge. The process of formative assessment should provide an accurate record of students' classroom performance, which in turn provides a reference for the analysis of students' learning and teachers' teaching situation. The classroom Jalu in the experimental process includes two modules: class representative records and student records, of which the former is mainly for the English class representative to assist the teacher to complete the record of students' classroom performance, while the latter is for the students to record their own performance. Due to factors such as teaching tasks, teaching organization and teaching time, teachers do not have extra time and energy to carry out the recording of students' classroom performance and need to have the class representative do it for them. English teachers can complete the classroom record booklet before the beginning of the semester, assigning one page to each student to ensure the independence of each student's record. The teacher will give the class record booklet to the class representative before class starts, and the class representative will record the positive and negative behaviors of the students during class, such as answering questions positively in class, having a high percentage of correct class exercises or being late to class, sleeping, etc. The teachers summarized and gave feedback on the contents of the classroom record booklet every week, encouraging students who performed positively and communicating privately with students who performed poorly to find out why the problems occurred. At the end of this experiment, three classroom record booklets were used in each class. By analyzing the records of the three manuals, the records of excellent student performance continued to increase and the records of poor performance continued to decrease. The students themselves were required to keep records of their own classroom performance. The record books contained a date-based record of the number of times they volunteered to answer questions, the number of times they were asked questions by the teacher, the percentage of correct answers, and the accuracy rate of class exercises during each class. At the same time, they also record what they have not mastered or understood in the lesson, so that they can provide reference for review after the lesson. In addition, the class representative can review the students' own records and give feedback to the teacher on the more focused questions in the students' records, so that the teacher can answer them in the next class. In the formative evaluation process, the teacher gives a comprehensive evaluation of the students' weekly learning in response to the class records of the class representatives and the students themselves, as shown in Table 6 below. The scale provides a clear picture of students' comprehensive performance in English classroom during a week, which has certain feedback and reminding functions for the analysis of students' learning status and the improvement of classroom teaching efficiency.

Table 6: Comprehensive evaluation of weekly classroom records

Classes:		Name:		School number:
Learning Status	Classroom Performance	Class Exercise	After-class assignments	Comprehensive Evaluation
Teacher's overall evaluation:				

5.4.4 Guiding the recording of students' reading notes

College students have a relatively relaxed learning environment and have a lot of time to spare compared to high school, so it is easy for English teachers to assign them some reading assignments outside of class. During this semester, the teachers asked the students in the experimental class to read at least one short English text each week and to take notes on the reading, such as transcribing wonderful phrases, annotating vocabulary, and writing post-reading thoughts. The application of reading notes can guide students' independent reading and inquiry ability, and let them learn to think and express themselves. Students can search through the library or the Internet for short reading texts on any topic. However, during the initial experimental period, it takes a long time for college students to search for short texts, and nearly 30min to read and annotate the vocabulary. Finally, there is a post-reading reflection to be written. The whole process is very rewarding and completely independent for the students, and the results received are very significant. The teacher will randomly go through the students' reading notes and give his or her opinion on the content of the notes. For the very outstanding reading notes, they can be used as models to read and analyze in the class to further enhance students' motivation for independent learning.

5.4.5 Guiding students to keep a weekly journal

The weekly learning diary is an important tool for college students to learn English by themselves, reflect and summarize, which can help them better understand their own learning situation. Teachers can also understand the feedback of classroom teaching in a week through students' weekly diaries and make timely adjustment of teaching contents and methods. Due to the influence of exam-oriented education, college students' English expression ability is poor, and their English expression ability can be further practiced through weekly diaries. For example, during the teaching process of the experimental class, the teacher analyzed the students' weekly diaries and found that the students were more interested in asking questions in class, believing that such questions could help them focus better and also had the effect of enlivening the classroom atmosphere. If all students can complete their weekly journals carefully, students' motivation in English learning will be greatly enhanced, which in turn will promote their self-learning awareness and ability.

5.4.6 Establishment of student records

During the experiment, teachers should put all the process data of students in the experimental class into the file bag, including questionnaires on students' self-learning before and after the experiment, various evaluation scales, class records, reading notes, etc., to further stimulate students' sense of participation and enthusiasm in formative evaluation and increase their sense of responsibility in self-evaluation. At the same time, the communication and exchange opportunities of college students are enhanced through formative evaluation, so that college students can truly recognize the role and value of self-study and promote the improvement of their innovative and critical abilities.

5.5. Results of the post-experimental self-learning test for college students

Before the end of the semester, the independent learning situation of college students' English was investigated again using the independent learning ability questionnaire before the beginning of the semester, and the results are shown in Table 7 below.

Table 7: Results of the survey on college students' English self-learning after the experiment

Classes	400-240 points (number of people)		240-120 points		Below 120 points	
	Pre-lab	after-lab	Pre-lab	after-lab	Pre-lab	after-lab
Class 1	7	23	15	5	8	2
Class 2	8	25	16	4	6	1
Class 3	7	6	16	11	7	13
Class 4	7	5	13	12	10	13

The following conclusions can be drawn from the comparative analysis of the data in the table.

(1) The self-learning ability of the students in the experimental and control classes showed a very obvious difference at the end of one semester of experiment. Before the experiment, the English scores and self-learning scale scores of the four parallel classes of the mechanical engineering major were basically the same, indicating that there was little difference in the English proficiency, English learning attitude and self-learning ability of the students in each class. At the end of the experiment, the self-learning ability of students in the two experimental classes using formative assessment classes was significantly improved, with the number of students scoring above 240 increasing more from 15 to 48, an increase of more than 75%; while the number of students scoring above 240 in the control class increased from 14 to 15 before the experiment and remained basically the same. This shows that formative assessment can promote the improvement of college students' English self-learning ability and awareness level.

(2) At the end of the semester, the number of students scoring below 120 in the experimental class dropped from 14 to 3, a 21.4% decrease. Although the difference is small compared with the increase in the number of students with 240 points or more, it also largely illustrates the role of formative assessment in guiding and helping students with poor self-learning awareness and ability. The number of students who scored less than 120 in the control class decreased from 17 to 26, with an increase of 65%. This indicates that without any intervention, college students lack the pressure of college entrance exams, and their interest and motivation in English learning are decreasing, and there is even a certain problem of truancy, and the summative evaluation method seriously affects the learning of English knowledge, not to mention independent learning.

(3) At the end of the semester, the number of students scoring 120-240 in the experimental class

dropped from 31 to 9, a decrease of 29%. This shows that for college students who have certain self-learning awareness and ability, formative assessment can help them develop good self-learning habits and form higher interest in English learning in a short period of time. The number of students with scores of 120-240 in the control class dropped from 29 to 23. Although the number of students in this score range in the control class decreased, a comprehensive analysis of the changes in the number of students in the three stages showed that the decrease was shifted to below 120, indicating that summative assessment not only does not promote the improvement of college students' interest in English learning, but also makes college students gradually lose their interest and motivation in learning English. The number of students who scored less than 120 in the summative evaluation was shifted to below 120.

6. Conclusions

College English teaching is a systematic project covering three aspects: teachers' teaching, students' learning and evaluation. With the implementation of quality education, the requirements for the comprehensive quality of college students have been rising, especially the ability of self-learning, thus laying the foundation for lifelong learning of English knowledge. The summative evaluation in the traditional situation focuses on the evaluation of students' knowledge learning effect, ignoring the evaluation of students' knowledge learning process, which leads to students' rote memorization of words and grammar in the process of English learning, only able to cope with exams and very poor practical application ability. Formative assessment is an important part of college English teaching. Through the analysis of the experimental results of four parallel classes of students in a university majoring in mechanical engineering, it can be found that the application of formative assessment tools can guide college students to form good self-study habits and abilities. The tool enables students to better make study plans, choose study methods, and control study time, etc. It is used throughout the whole process of college students' English learning, realizing comprehensive record, summary, analysis and supervision of college students' English learning, which has a subtle influence on the cultivation of college students' English self-learning ability. After the implementation of the formative assessment tool in the experimental class, the classroom discipline was good, students answered questions positively, and the accuracy rate of classroom exercises improved, while students' reading ability and English IV passing rate also improved significantly. Therefore, the application of formative assessment tools has an important role in promoting English learning among college students, and teachers need to actively adopt them and continuously optimize and improve them. At the same time, it is also important to strengthen the joint participation of the community to ensure the real application of formative assessment in college English teaching, which ultimately promotes the quality and effectiveness of college students' English learning and realizes the co-promotion with summative assessment.

References

- [1] Pan Huafang. *A study on the influence of formative assessment on college English independent learning ability* [J]. *English Abroad*, 2021(15):2.
- [2] Zhou Shuang, Li Xiaodong. *Implications of formative assessment for improving college students' English independent learning ability*. [J]. *Journal of Changchun University*, 2009, 19(5):3.
- [3] Yan Hong. *On the independent learning of college English students in the network environment* [J]. *Journal of Inner Mongolia Normal University: Education Science Edition*, 2004, 17 (11): 2.
- [4] Liu Dan. *Implications of Chinese English proficiency scale for university English teaching* [J]. *Modern Economic Information*, 2018(14):1.
- [5] Xie Fang. *Cultivation of higher vocational students' English independent learning ability--Based on the Chinese English Proficiency Scale* [J]. *Journal of Zhengzhou Railway Vocational Technology College*, 2020, 32(3):4.
- [6] Yu Lin, Liu Zhongmin, Lin Yongping, et al. *The construction of a formative evaluation system of medical laboratory teaching* [J]. *Chinese Journal of Medical Education and Exploration*, 2021, 20(10):5.
- [7] Wang Rui, Wu Zhan, Guo Xiaojing, et al. *Exploration of group discussion teaching method and formative evaluation in practice - taking statistical design course in medical research as an example* [J]. *University Education*, 2021(4):3.
- [8] Xing Fang, Yao Lan. *Research on the reform of the teaching mode of flipped classroom in university English* [J]. *Journal of Shenyang Agricultural University: social science edition*, 2018, 20(6):6.