

# The Application of Formative Assessment in Oral English Teaching in Senior High Schools from the Perspective of Dynamic Systems Theory

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**ABSTRACT:-** As an important part of assessment, formative assessment mainly focuses on the dynamic tracking of students' learning process. This paper, based on the perspective of the dynamic systems theory, discusses the understanding of formative assessment and the application of formative assessment in oral English teaching in senior high schools to improve students' learning motivation and autonomous learning ability, a research model of oral English teaching is proposed.

**Keywords:-** Dynamic systems theory, formative assessment, High School English, Oral English Teaching, Learning Archives

## I. INTRODUCTION

Formative assessment, an important concept in educational theory, originated from curriculum evaluation in the field of curriculum studies (Cao Rongping & Chen Yaping, 2013)[1]. The formative assessment is always based on the relative summative evaluation in the earlier research and discussion. The so-called summative evaluation is used to sum up students' academic achievements, often refers to a semester or a stage of the end of the semester students' academic achievements. Formative assessment is procedural and dynamic. It can effectively reflect the development of students' psychology, motivation and learning behavior in the process of learning, so form some feedback for learners to adjust themselves and teachers to adjust their teaching behavior. High School, an important stage in basic education, is an important turning point in students' lives. Although English has been included in the basic education system for many years, and there are significant benefits in the teaching process in China. In the actual teaching process, the oral English of high school students is still very weak even "dumb English" phenomenon. Therefore, how to improve students' oral English ability is something that educators need to think about and solve. Improving students' spoken English can effectively cultivate students' sense of English and promote the cultivation and development of students'

listening, speaking, reading and writing skills. This paper, based on the Dynamic systems theory and Literature Review, discusses the understanding of formative assessment and the application of formative assessment in oral English teaching in senior high schools to improve students' learning motivation and autonomous learning ability, a research model of oral English teaching in Senior High School is proposed.

## II. A REVIEW OF RESEARCHES ON FORMATIVE ASSESSMENT AT HOME AND ABROAD

With the continuous development of society and education, the wave of educational evaluation reform has swept the world. Around the world, educational assessment is shifting from "assessment of learning" to "assessment for learning" and from "test culture" to "assessment culture" (Li Qinghua, 2012) [2]. The following is a review of the research on formative assessment at home and abroad:

### 2.1 Research on Formative Assessment Abroad

Frederich Taylor [3] first proposed the idea of "teaching evaluation" in *The principles of Scientific Management* in 1911. The idea is to emphasize the significance of examinations in order to understand the extent of students' progress in learning. Later, in the 1960s and 1970s, assessments were still outcome-oriented and formative assessments were only supplementary or complementary (Lynch, 2001)[4]. It wasn't until the 1980s that scholars began to focus on the difference between summative and formative assessments. Some scholars think that the difference between formative assessment and summative assessment mainly lies in their different purposes and time, the former is in the course development and teaching, the latter is after the course effect and teaching (Bachman, 1989) [5]. By the 1990s, more and more scholars began to pay attention to the influence of formative assessment on teaching. For example, in Weir's [6]paper published in 1993, it was suggested that teachers should adopt formative assessment to adjust the teaching process and students' learning behavior effectively. And then HARLEN & James [7]emphasize that the key to formative assessment is to identify gaps between students' current levels and learning goals. In this trend, scholars have made more and more researches on formative assessment, and they generally think that formative assessment is a behavior that teachers and students can take to gain feedback information and guide teaching (Wang Hua, Fu Changhong, 2006) [8].To sum up, after a long time of research and time, foreign researchers have realized that summative evaluation is not the only evaluation method in the evaluation system, and formative evaluation is an important component of teaching evaluation. It can provide effective feedback for teachers and students, and promote the teaching process and the realization of objectives.

### 2.2 Research on Formative Assessment at Home

More and more attention has been paid to the research of formative assessment in China. In China, the application and research of formative assessment has been emphasized by authoritative institutions and supported by policies (Ministry of Education, 2004). Especially in the field of English teaching in China, there are numerous researches on the application of formative assessment in English teaching, especially on the assessment of non-english majors or corresponding courses. For example, college English (Zhou Pingdi, Qin Xiubai, 2005), English writing (Cao Rongping, 2004), and graduate literature reading (Wen Qiufang, 2011). Some scholars have summarized and discussed the current situation and future development trend of formative assessment (Li Qinghua, 2012), and applied the concept of formative assessment to interpretation teaching (Cao Rongping, Chen Yaping, 2013). This paper reviews the researches on formative assessment of foreign language education at home and abroad and puts forward some suggestions for future research (Huang Jian et Al., 2019). Through reading and sorting out these documents, it can be found that the research on formative assessment in

China is becoming more and more mature. It can be seen that the domestic scholars are optimistic about formative assessment promoting the development of foreign language classroom, so it is more necessary for us to persist in the study and combine the current situation to promote the development of learners' foreign language ability.

### 2.3 Limitation to the Previous Studies

It can be seen from the above that the research on formative assessment is increasingly mature, and involves a wide range. However, too many of its research focus on undergraduate students, or non-English Majors in higher vocational colleges, and the proportion of English majors and primary and secondary students is relatively small. There is also a lack of a certain theory and there is no theoretical support for the model is the lack of credibility. Therefore, this paper, based on literature reading and the characteristics of formative assessment, explores its application in oral English teaching in Senior High Schools from the perspective of Dynamic systems theory, with a view to constructing a corresponding teaching model to improve students' oral English ability, to monitor the dynamical system and to grasp the changing process of students' learning.

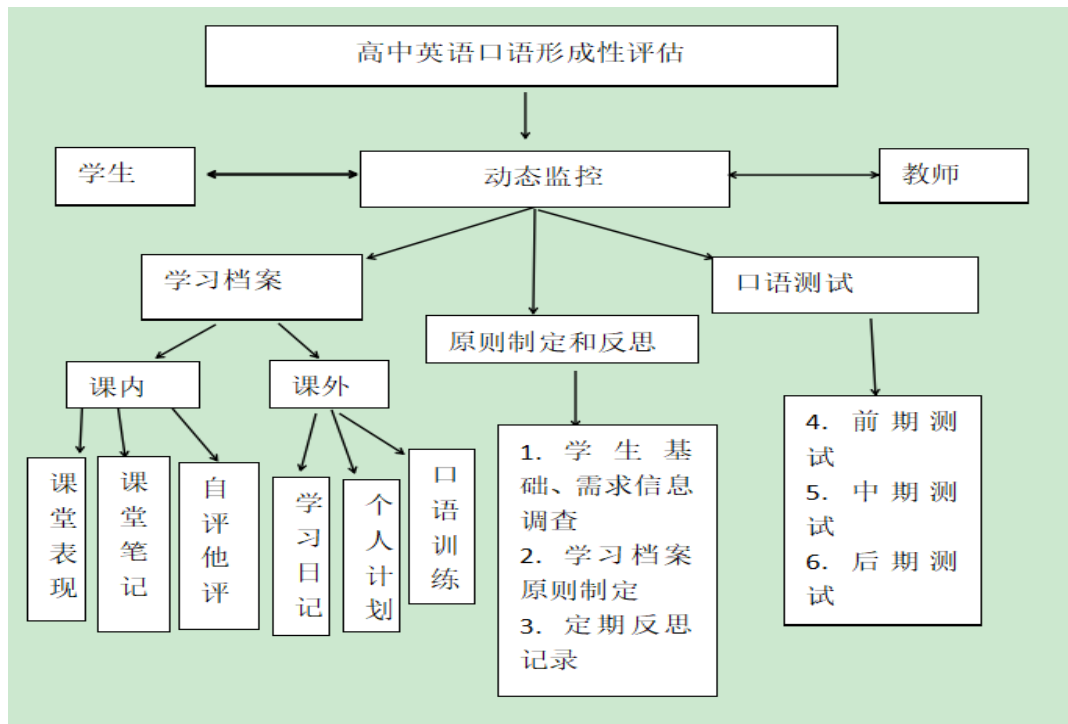
## III. THE APPLICATION OF FORMATIVE ASSESSMENT IN ORAL ENGLISH TEACHING IN SENIOR HIGH SCHOOL

### 3.1 Dynamic Systems Theory

The Dynamic systems theory, also known as complexity theory, is complex, nonlinear, dynamic, open and so on. The development of language is not a simple sociocultural process or a complete cognitive psychological process, but a dynamic process in which multiple resources interact with each other in multiple environments and at multiple levels. We can regard high school students learning English as a dynamic development process, which is a process of development and change. Summative assessment focuses on the investigation of learning results, and the development of students is not only a result can be represented, it has a strong contingency. Therefore, we can use formative assessment to evaluate the dynamic development of students' foreign language learning.

### 3.2 The Model Construction of Formative Assessment in Oral English Teaching in Senior High School

Formative assessment can effectively monitor the change and development of students in the process of learning. Based on the Dynamic systems theory, this paper applies formative assessment to oral English teaching in senior high schools with a view to improving students' oral proficiency and the development of various skills. This paper adopts the method of formative assessment to investigate senior high school students oral English, which is mainly based on: 1) learning archives, 2) the formulation of early principles and the reflection and sharing in the middle period, and 3) the testing and assessment at the end of the later period.



As can be seen from the pattern above, the application of formative assessment in oral English teaching in Senior High Schools from the perspective of Dynamic systems theory includes three aspects: the construction of learning files, the formulation of files and assessment principles, the reflection and sharing of teachers and students, and the assessment of final test. The construction of learning archives is mainly to provide the learning information for students and teachers. According to the student's own learning archives, the teacher can adjust the teaching plans and method. The establishment of learning archives includes two aspects: in-class and out-of-class. In the classroom, teachers are required to help students record their classroom performance, including the number of times students answer questions in class, the enthusiasm of participating in activities, etc. Self-assessment and other-assessment, refer to students' self-assessment of their own performance and attitude in the classroom, and then combined with others or peer evaluation, to form a more scientific evaluation. However, this assessment is in a dynamic process, that is, students' performance may be different in each class. In this way, formative assessment is applied to students' English learning can effectively change the enthusiasm of students in the classroom. Outside the classroom, students are required to write a study diary, so that we can see the changes of students' emotion, motivation and learning behavior in the course of a certain stage, which can provide a basis for the adjustment of learning in the future. Each student's development level is different, so the students should carry on the goal formulation based on their own level and the demand of study as the guidance of study behavior. Then in each week for students to share learning, based on mutual reflection and summary of the plan for the next week to make corresponding adjustments. The whole process is dynamic, based on the perspective of the students to adjust. At the end of the semester, a learning archives meeting and a test are held. The test is divided into a pre-test, a mid-test and a post-test. The pre-test is the initial stage in which formative assessment is applied to the teaching of spoken English. It tests the students' oral ability and level. Then after a period of study and adjustment, the mid-test will be arranged. Until the end of the post-test, it is used to observe the students at each stage of oral proficiency and development. In this model, teachers and students are in a communicating way, that is, teachers can regularly check students' learning files, and reflect on their teaching and evaluation skills. As a basis for giving students feedback, students can use the learning archives for self-monitoring and self-adjustment.

#### IV. CONCLUSION

As a foreign language, students in the process of learning English will inevitably encounter a variety of problems. The student's learning study is a dynamic development process and is non-linear. As future English teachers, we should apply formative assessment to the English teaching process on the basis of Dynamic systems theory. This paper focuses on the application of formative assessment in oral English teaching in senior high schools in the hope of constructing a responsive model to improve students' oral English performance. The use of learning files in formative assessment not only will promote students self-regulation and self-monitoring, but also can teachers based on these information to adjust their teaching.

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