

# Problems and Countermeasures of the Integration of Information Technology and English Curriculum in Secondary Vocational Schools

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**Abstract:** *With the development of information technology, information teaching has become an important teaching method. The theory and practice of information-based teaching have become increasingly rich, and the technical means have become increasingly diversified. At present, the focus of the research has shifted from focusing on the construction of hardware, software and resources to focusing on the effectiveness of the application of information technology in schools and classrooms, that is, the effect, efficiency and efficiency of information teaching. This paper gives some opinions on how to realize the effective integration of information technology and secondary vocational English curriculum and the corresponding countermeasures. For a long time, mankind has been faced with the problem of global poverty, and the United Nations has also listed "eradicating poverty in all forms in the world" as the primary goal of the 2030 Agenda for Sustainable Development. Eliminating poverty, improving people's livelihood and gradually realizing common prosperity are the essential requirements of socialism [1]. Poverty alleviation has always been highly valued by the Party Central Committee and the fundamental task of building a well-off society. The strategic idea of "targeted poverty reduction" was first proposed by Xi Jinping in 2013; Since then, the concept of targeted poverty reduction has become increasingly mature, providing an important reference for poverty reduction in developing countries. At the National Poverty Alleviation Work Summary and Commendation Conference in 2020, Xi Jinping announced that at present, 98.99 million people in poor rural areas in China have achieved comprehensive poverty eradication and the goal of eliminating "absolute poverty"*

**Keywords:** Informatization; Secondary vocational English; Integration; countermeasure.

## 1. INTRODUCTION

The connotation of effective integration of modern information technology and English teaching in secondary vocational schools. The effective integration of information technology and English teaching in secondary vocational schools refers to the learning characteristics of being active in the life of secondary vocational schools, not loving to learn, unable to learn or unable to learn. The information technology is organically integrated into the teaching process of English courses in secondary vocational schools, and the information technology, information resources and information methods are integrated with the curriculum structure, curriculum content, curriculum resources and curriculum implementation of English courses in secondary vocational schools, so as to better achieve the curriculum objectives, It is a new teaching method to improve the efficiency of teaching and learning, improve the effect of teaching and learning, change the traditional teaching mode, and better complete the course teaching task. Different from the two Singing-Games before the founding of the People's Republic of China, which appeared as independent curriculum standards, Singing-Game, singing, instrumental music, and appreciation are included in the music syllabus as music curriculum content, but it is specially stipulated that the lower grades should add 1 class hour of Singing-Game every week. This syllabus implements the requirements of the nine-year compulsory education and the policy of quality education and is dominated by "Double- basics".

Singing-Game is further optimized compared to the previous two. Among them, the second point in the teaching requirements puts the sense of rhythm in the first place, which reflects the "Double-base" oriented curriculum view. "Singing-Game teaching should avoid playing games out of music"[3] reflects more attention to the subject of music. The central idea and teaching purpose of this syllabus are the same as those of the previous one, both emphasizing that music education is an important way to implement aesthetic education. Singing-Game is also one of the important contents of music teaching in the lower grades. The music class has been increased from 2 class hours per week to 3 class hours per week, and there is a Singing-Game teaching content every week.

However, two years after the promulgation and implementation, the State Education Commission adjusted this "trial version" outline in 1994. It is pointed out that the first and second grades of elementary school will reduce one music class per week. Schools that cannot arrange Singing-Game lessons in the first and second grades of the primary school for the time being can subtract the teaching content of Singing-Game in the curriculum standard, and organically integrate the teaching of Singing-Game into singing, instrumental music, appreciation, visual music knowledge and Solfeggio and listening to music and other teaching. [3] The adjustment opinions issued by the Ministry of Education at that time, on the one hand, reflected that the teaching of Singing-Game at that time might not be very perfect, and the teaching quality of one class per week alone was not good. However, it also reflects that the music curriculum is more flexible and proceeds from the actual situation.

## **2. THE CHARACTERISTICS, PROBLEMS AND SOLUTIONS OF THE INTEGRATION OF INFORMATION TECHNOLOGY AND ENGLISH TEACHING IN SECONDARY VOCATIONAL SCHOOLS**

As the syllabus promulgated by my country's general music education across the century, it plays an important role as a link between the past and the future and conforms to the needs and demands of the times to comprehensively promote quality education in the 21st century. It can be seen from Table 1 that the teaching requirements of Singing-Game in this syllabus are different from the previous two parts. The second point puts the cultivation of students' creativity and interest in the first place, highlighting the educational nature of teaching, it emphasizes that cultivating students' innovative spirit and practical ability, improving cultural literacy and aesthetic ability are the main tone of music education, and it also reflects the transition to the concept of "aesthetics as the core" music curriculum after 2001.

However, the complete eradication of absolute poverty does not mean the complete eradication of poverty, or that the national mission of poverty alleviation has been completed. The report of the 19th National Congress of the Communist Party of China clearly pointed out that the main social contradiction in China has transformed into the contradiction between the people's growing needs for a better life and unbalanced and inadequate development [2]. In this context, according to the relevant requirements of the Fourteenth Five Year Plan, it is pointed out that we should strictly implement that poverty relief responsibilities, policies, assistance, and monitoring continue even after a county is removed from the poverty list, and establish and improve a long-term mechanism to consolidate and expand the achievements of poverty alleviation. This has pointed out the direction for China's poverty alleviation work after the building of a moderately prosperous society in an all-round way. It also marks that in the context of China's new era, the focus of poverty alleviation projects has shifted from "two no worries and three guarantees" to reducing and solving relative poverty [3].

Compared with absolute poverty, relative poverty presents a multi-directional feature in space. With the development of society and the rapid growth of economy, people's lives are no longer only satisfied with their original needs, but have begun to pursue a higher level of production and lifestyle. Therefore, when measuring relative poverty, a more comprehensive and multi-dimensional social demand index system must be adopted; After gradually entering into relative poverty, the government must pay more attention to the overall balance of poverty and multi-dimensional governance, and combine regional, urban and rural, gender, age and other factors for comprehensive research, and give more rights to the relatively poor in economic, social and other development fields. Another characteristic of relative poverty is its developmental nature, which is embodied in two aspects. On the one hand, after entering the stage of targeted poverty reduction, the economic assistance to poor groups is only temporary, not fundamental, and it is only a short-term situation for some poor groups to get rid of absolute poverty, because they do not have a strong ability to independently create wealth, and may return to absolute poverty again. On the other hand, relative poverty is caused by the interaction of social structure and social culture. Behind the poor people are often the problems of cultural capital shortage and survival mentality under long-term poverty: for a long time, they have been in a passive and negative position in the poverty alleviation policy, breeding the idea of "waiting for help", and the reverse incentive problem of "striving to be poor" is more prominent [4].

At present, a correct understanding of the problem of relative poverty and the formulation of a series of solutions are important links to consolidate the achievements of poverty alleviation, constantly improve the people's sense of happiness, and thus promote China's economic development [5]. At the same time, based on the practical significance of the rural revitalization strategy, the current focus of China's poverty alleviation projects has shifted

from the overall realization of poverty alleviation to the effective connection between the consolidation and expansion of poverty alleviation achievements and rural revitalization; The relative poverty of peasant households is not only the strategic focus and difficulty of poverty control after 2020, but also of great significance in consolidating the achievements of poverty alleviation and promoting the rural revitalization strategy. Therefore, it is necessary to list the governance of relative poverty of peasant households as an important task of the rural revitalization strategy. Through the implementation of the rural revitalization strategy, the internal and external linkage of governance and control in poor regions will be boosted, and the relative poverty will be solved in a reasonable way, so as to gradually achieve the goal of common prosperity [6].

In the research and analysis of the relative poverty of peasant households, the issue of vulnerability to poverty has attracted more and more attention from the academic community. vulnerability to poverty is a long-term and predictable concept, which is used to measure the possibility of poverty of the tested object or group in the future. According to the concept of vulnerability, it can help to effectively identify vulnerable groups whose current economic situation is still good but who may fall into relative poverty in the future, so as to help formulate policies of relative poverty governance, and further reduce the probability of families falling into relative poverty "in advance". Therefore, identifying relative poverty, measuring relative poverty vulnerability and exploring the causes of relative poverty vulnerability are of great practical value for consolidating the achievements of poverty alleviation and effectively solving poverty problems.

### **2.1 Functions of information technology in secondary vocational English curriculum (1) Stimulate students' interest and create real situations**

Through real scenes, dynamic pictures, and emotional dialogue and communication, create an audio-visual teaching environment, shorten the distance between students and unfamiliar things, enhance the authenticity of the image, attract students' attention, stimulate their curiosity and desire to perform, and help mobilize students' interest in learning, so as to attract students' enthusiasm, actively participate in language practice activities, and make the learning process vivid and real, The learning atmosphere is relaxed and happy. In addition, the use of information technology to assist English teaching can reduce the difficulty and break through the difficulties. It can display some originally abstract and obscure content in vivid, concrete and vivid aspects to achieve an easy-to-understand effect. For example, when learning vocabulary and sentence patterns related to the weather, I will play a video about the weather to create scenes and images for students to understand. The meaning of the specific words "sun, wind, cloud, rain", and then the way to ask about the weather: How is the weather? Or what is the weather like? Compared with traditional textbooks and recorders, multimedia computers provide more authentic and natural language input. This is a way that cannot be replaced by any other media. It can effectively stimulate students' interest in learning, make students have a strong desire to learn, thus forming learning motivation, and gradually cultivate and improve the ability to use information technology to find and learn new knowledge.

The application of information technology is beneficial to increase teaching capacity and improve learning efficiency; Optimize the classroom structure, highlight the key points and break through the difficulties. Modern educational technology can also transcend time and space and make the teaching content and its extension vivid. Realistic representation of the present makes abstract knowledge concrete, simple, intuitive and shortens the customer. Observe the distance between objects and students. This will reduce the difficulty, make students easy to accept and understand, and gain more profound and clear perception.

The application of information technology is conducive to expanding learning resources, expanding cooperation and communication channels, and cultivating students' good language sense and language communication ability. The English level of secondary vocational students is poor, but they are still interested in the hot spots of society and foreign culture. The Internet can provide a large number of reading materials and background information related to the text, increase students' input of English language, cultivate students' good sense of language, and at the same time enable students to broaden their horizons and understand foreign culture. For example, when students learn language communication words, teachers can provide students with the cultural background of communication activities, link language and image, acquire a lot of information knowledge through multiple senses, let students strengthen the understanding of learning content through the exploration, discovery and research of these situations, explore and discover foreign social environment, customs and national psychology, and cultivate students' exploration spirit and innovation ability.

The application of information technology is conducive to promoting personalized learning, creating conditions for students to learn independently, and cultivating students' exploration awareness and innovation ability. There are also many students who are interested in speaking and improving in secondary vocational schools. Mobile phones have become very popular, so students can try to use related mobile phones that are conducive to improving oral English. App and other software, teachers can view students' learning effects online and provide targeted guidance. The learning of knowledge database requires students to think actively, conclude, summarize and explore the laws of English learning, thus cultivating students' awareness of inquiry.

## **2.2 Main problems and solutions of multimedia application in English teaching Although the integration of modern information technology and curriculum has brought about**

Earth-shaking changes, but there are still many problems in the actual application process. We should pay attention to avoid excessive use of multimedia teaching. Students' eyes stare at the large screen for a long time in class, and the stimulation time is too long, which is easy to cause students' visual fatigue, thus affecting the decline of vision. Especially for secondary vocational students, it is not easy to concentrate. Therefore, in the process of teaching, English teachers should pay attention to the design of teaching system, combine with other teaching methods, and effectively apply information technology to classroom teaching. Multi-style teaching methods such as group discussion, front desk display and performance are more suitable for secondary vocational students. Teachers should not blindly follow the trend, but should choose appropriate media and means according to students' learning characteristics, teaching needs and their own teaching style, and give full play to their respective strengths without paying too much attention to the number of technology applications and whether technology Exquisite, information for information.

The frequent use of network multimedia in teaching has weakened the communication and interaction between teachers and students. Teachers must operate multimedia in the teaching process, which leads to students' tendency to focus too much on multimedia courseware in the learning process, and start to ignore teachers' expressions and body language, thus weakening the communication and interaction between teachers and students. We know that English teaching is a process of emotional communication between teachers and students, and information technology cannot replace teachers' guidance, inspiration, encouragement, or criticism in the classroom. English is a living language. Only when it carries information and emotions can it become vivid and understood. Therefore, in the English class, teachers can use information technology to create situations and carry out extended activities such as two-person dialogue, group dialogue, debate, role-playing, and so on, so as to provide students with sufficient opportunities for expression and communication, and help improve their comprehensive language use ability.

## **2.3 The "interactive tutoring" function provides individual solutions to the problems raised by students' "electronic hands" or prompts learning methods for individual students to guide their independent learning.**

Give full play to the leading role of teachers. In real life, many teachers are too keen on information technology and do not understand the essence of information technology in English teaching. In English teaching, we rely too much on information technology, change information technology-assisted teaching into information technology-led teaching, blindly rely on information technology means to reproduce all teaching links, and teachers become slaves of information technology in teaching. The teacher only played the role of operator and commentator, but did not play the leading role that the teacher should have. Some people even think that computers and networks have provided so much English information and resources that teachers can only display and share these contents in class or provide enough clues for students. This is actually a misunderstanding. In fact, whether students' autonomous learning or cooperative learning, whether using information technology for teaching or traditional teaching, are inseparable from the guidance of teachers. Teachers still play an important role in English teaching. The leading role of teachers is to help students find suitable learning resources and guide students to use them. In particular, secondary vocational school students have limited knowledge ability and insufficient judgment ability. Teachers need to demonstrate carefully and know how to use the network correctly for learning. Secondly, under the information technology environment, teachers should strengthen the clear demonstration and guidance of learning tasks. Teachers should make students clear about the purpose of each teaching activity, Regulate their attention and pay attention to timely feedback correction to properly play the leading role of teachers and the auxiliary role of multimedia. For example, when organizing secondary vocational students to carry out group cooperative learning, teachers should tour between groups, because secondary vocational students have poor self-restraint ability, and use the "monitoring" function of the computer to observe

the students' screen, understand their operation content and learning level, otherwise the students may quietly play the game.

### **3. THE HIERARCHICAL STRUCTURE AND PRACTICAL SUGGESTIONS OF SINGING-GAME TEACHING**

It can be seen from the evolution of the Singing-Game curriculum standard that in theory, the emergence of Singing-Game is a product of the development of the times and a symbol of the scientific progress of music courses. We should distinguish Singing-Game from purely teacher-led teaching activities. In practice, Singing-Game is between games and music, and teachers need to grasp the levels well. Different levels of Singing-Game will present different teaching effects, and what teachers need to do is to properly observe, intervene and guide the development of Singing-Game, and promote the development of pure "Game + Music" to meaningful Singing-Game comprehensive teaching.

#### **3.1 Concept Definition**

Galbraith believes that whether a person is poor depends not only on how much income he has, but also on the income level of other people in the society. The so-called "relative poverty" refers to that under a certain social production and living style, although farmers can ensure the operation of basic family life by relying on individuals or family labor, it is difficult for them to meet the most basic other living needs recognized under their local conditions. Compared with the definition of absolute poverty, relative poverty can be further interpreted as social poverty, highlighting the "relative deprivation" of vulnerability and social exclusion caused by poverty [7]. At the same time, it also shows the characteristics of large population, wide poverty dimensions, and high risk of easy (return) poverty, which also faces huge challenges in the continuous income increase, endogenous power, multi-dimensional poverty, and related institutional mechanisms of peasant households [8]. China has built a well-off society in an all-round way in 2020, and won the victory of absolute poverty control. However, based on China's basic national conditions, it is difficult to solve the problem of relative poverty in a short time. Relative poverty is multidimensional and relative, and its governance is a complex and long-term process [9]. The multidimensional nature of poverty refers to that poverty is not limited to material things, but also includes living environment, rights and interests and mental state, which are lacking in economic, social and cultural aspects [10],[11]. At present and in the future, China still focuses on relative poverty and multidimensional poverty in the process of rural governance [12].

Generally, the indicators to measure the relative poverty of households are household disposable income and per capita expenditure. When a family's disposable income cannot meet the family's necessary expenses, the family belongs to the poverty range. However, in China, some families whose income basically meets their needs are still relatively poor. Most of these families are located in economically underdeveloped areas, where economic and social development is unbalanced and insufficient, and their income and social resources fall behind those in developed areas [13].

Timmenrman first proposed the concept of vulnerability [14]. Since then, vulnerability has frequently appeared in the literature on risks and disasters. Moser proposed that vulnerability can be understood as the increase of poverty risk faced by individuals, families and communities due to the lack of a series of assets. To put it simply, the increase in the number and scope of assets means less vulnerability, while fewer assets increase the risk of poverty [15]. This further defines vulnerability.

The concept of "vulnerability to poverty" was put forward at the beginning of the 21st century, which provides a new way of thinking for solving the worldwide poverty problem. At present, with its visionary advantages, vulnerability to poverty has been rapidly developed in economics, sociology and other aspects, and has gradually become the mainstream view of poverty research in various fields around the world. From the perspective of the whole country, vulnerability to poverty is universal, and the non-poor will face higher vulnerability risks than the poor. The predictability of vulnerability to poverty is reflected in the ability to identify the poor and potential poor groups, so as to predict and judge the specific situation and general trend of poverty. There are three main methods to measure vulnerability to poverty: Vulnerability as Expected Poverty, Vulnerability as Low Expected Utility, Vulnerability as Uninsured Exposure to Risk. Among them, Vulnerability as Expected Poverty (VEP) is widely adopted by many scholars because of its diversified foresight and family preference.

Vulnerability to poverty is a forward-looking and sustainable social welfare indicator. Its essence is a scientific prediction of poverty development trend, which helps to "prevent problems before they occur" and can feed back the quality and effect of poverty alleviation to a certain extent. Thus, it can provide reference for China's efforts to prevent large-scale return to poverty, stabilize poverty alleviation, and build rural economy and help poor peasant households. Liu Qian, et al. believed that vulnerability to poverty of peasant households is easily affected by the education level, health level, livelihood diversity, policy dependence and other aspects of household heads [16]. In terms of education, Wu Hecheng et al. believed that in the past, more attention was paid to strengthening education investment in rural areas, but the universality and quality of education were ignored. A single education investment could not continuously curb the vulnerability to poverty of family for a long time, but it could effectively reduce the vulnerability to poverty by improving the education level of family members in a balanced way [17]. In terms of health level, Uplekar et al. believed that disease was the key factor for peasant households to return to poverty. The high out of pocket medical expenses caused by the disease will not only weaken family happiness, but also bring economic pressure to the households, reducing their future income. However, increasing the proportion of family members participating in insurance can effectively reduce the vulnerability to poverty of peasant households [18]. Chen Ying et al. believe that, compared with families with a lower proportion of participating in medical insurance, families with a higher proportion of participating in medical insurance can significantly reduce the vulnerability to poverty of family in the face of the impact of high-risk major diseases, and further alleviate the family medical burden and the risk of poverty caused by diseases [19]. In terms of livelihood diversity, natural disasters also have a great impact on the vulnerability to poverty of peasant households. Ren Tianchi et al. believed that, due to the diffusion of natural disasters, the targeting efficiency of poverty alleviation means such as transfer payments to poor farmers has declined. Accordingly, because of the special characteristics of agricultural insurance policies in preventing and controlling the risk of returning to poverty due to disasters, agricultural insurance policies have become an important means and objective choice to consolidate the achievements of poverty alleviation [20]. At present, China has entered a new stage of comprehensive rural revitalization, and the digital era is advancing rapidly. Zhang Haiyang et al. believe that research on digital finance in reducing the vulnerability to poverty of family has important policy significance [21]. At present, China has basically eliminated absolute poverty and regional overall poverty. However, some households out of poverty and households on the edge of poverty but not poverty still have the possibility of returning to poverty. Therefore, it is necessary to establish a long-term and sustainable poverty reduction mechanism.

### 3.2 Literature Review

The first thing to discuss is the research progress of the international community on the identification of relative poverty. The connotation of relative poverty identification is to define the classification standard of poor households through scientific and reasonable indicators. Different countries or international organizations have different assessment criteria for the relatively poor. At present, the international poverty standards are mainly divided into currency standard and non-currency standard according to the statistics of China International Development Knowledge Center. The currency standard can be further subdivided into the absolute poverty standard used by the United States, South Africa and India and the relative poverty standard used by the United Kingdom, France and Australia. The non-currency standard usually uses the multidimensional poverty index. The economic development level of developed countries is relatively high, the family income is generally higher than the world average, and there are few extremely poor groups who can not guarantee the basic food and clothing. Therefore, most developed countries adopt the relative poverty line [22]. In the international community, some developed countries and developing countries combine the absolute poverty line with the relative poverty line when considering the degree of poverty, such as the United Kingdom and Australia [23]; The World Bank takes people's living needs as the poverty measurement index [24]. Some countries or international organizations adopt a combination of currency standard and multidimensional poverty standard. For example, the EU uses 60% of the median after tax income of the national equivalent as the evaluation threshold to measure relative poverty, and the multidimensional relative poverty indicator system includes three dimensions: residents' income, material conditions, and work intensity [25]. Due to differences in economic development levels, different countries or international organizations will formulate more specific poverty line indicator based on their own economic and social development levels: Mexico has eight dimensions as multidimensional poverty indicator in detail from the perspective of income, education, social power and housing, while Vietnam pays more attention to health care, education, housing and water use [3].

The second is the domestic research progress. China's multidimensional poverty indicator combines currency standard with non-currency standard. As far as currency standard is concerned, China redefined the poverty baseline of the poor in 2022, and the corresponding standard is that peasant households with an annual income of

less than 4000 yuan are regarded as poor people. At present, China takes the cross examination, third-party assessment and secret media visits as common means of poverty assessment [26]. Scholars hold different opinions on the specific criteria for multidimensional poverty. Xiang Deping et al. believe that the dimensions of income, ability, power, society, culture, vulnerability to poverty and risk of peasant households should be taken into account when building the identification system of relative poverty [27]. Sun Jiuwen et al. also set multidimensional identification standards for income, housing, medical care, health, consumption, education, social security system, etc. in their research [28]. Wang Guomin et al. believe that income, employment, education, medical care, housing security, health, water use and Internet development should be considered [29]. These are the criteria set by combining income and welfare. Zhang Cheng et al. took peasant households as the research object, based on the relevant data of CFPS in 2018, used A-F and Logit methods to study and analyze the multidimensional relative poverty status and its influencing factors in rural areas of China, and believes that economically underdeveloped regions are more likely to fall into relative poverty, and the health, education, public services, elderly care and economic level of residents should be paid attention to [30].

At the same time, it is extremely important to explore the vulnerability to poverty of rural households. At present, a large number of studies on vulnerability to poverty have been carried out in relevant fields in China, most of which focus on developing countries, and focus on the three dimensions of vulnerability to poverty: theory, measurement and influencing factors [31]. It is necessary to conduct research on the vulnerability to poverty of peasant households. Li Xiaoyun et al. believe that the quantitative analysis method of peasant households' vulnerability can help improve the targeting of poverty in the concern of peasant households' assistance [32]. Moreover, the vulnerability to poverty originates from the lack of the ability of families to cope with risks or shocks [33]. Therefore, Huang Chengwei et al. believe that measuring the vulnerability to poverty of peasant households can provide forward-looking interventions to consolidate the achievements of poverty alleviation, so as to effectively prevent and reduce the possibility of future poverty [34].

After that, it is the research progress of measuring methods of peasant households' vulnerability to poverty. Hodginott and Quisumbing define vulnerability to poverty as three types, namely Vulnerability as Expected Poverty (VEP), Vulnerability as Low Expected Utility (VEU) and Vulnerability as Uninsured Exposure to Risk (VER) [35]. Chaudhuri and Suryahadi propose that VEP refers to the possibility of individuals or families falling into poverty in the future [36], and its measurement method is mainly the measurement method of average and variance of income or consumption proposed by Chaudhuri. Gaiha and Imai believe that VEU refers to the welfare loss of risk, which is expressed by the utility level of poverty line minus the utility of expected consumption [37]. This method is proposed by Ligon and Schechter. It measures vulnerability to poverty by introducing a utility function containing risk preference factors, and then calculating the expected utility of poverty line level, utility of expected consumption, and expectation of consumption utility [38]. Quisumbing proposes that VER is to estimate the welfare loss after the risk hit. Unlike VEP and VEU, VER does not directly estimate the overall vulnerability, but judges the vulnerability by estimating the sensitivity of consumption to income changes due to risk shocks. The greater the income change caused by the risk shocks, the higher the vulnerability of consumption to income risk [37]. VEP and VEU are ex ante estimates of the welfare losses of families hit by risks in the future, and they are ex-ante predictions; VER is an ex-post judgment to judge the family's welfare loss caused by the risk shocks.

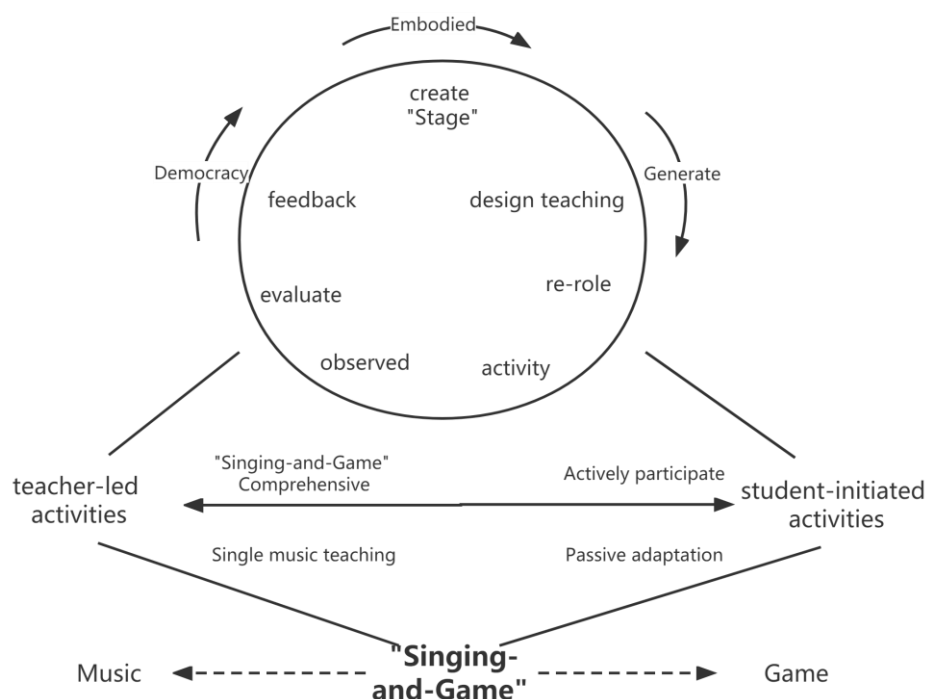
In the overseas oriented research, Michael et al. proposes an asset-based poverty analysis method by studying the poverty trap existing in the South African population. On the premise that families have assets, researchers divide the poverty risks faced by the research objects into random changes and structural changes. This method helps to measure the vulnerability to poverty of families [39]. Maren also adopts the method based on family assets. Taking Kenya as the research object, she uses the economic transformation matrix to distinguish between random poverty and structural poverty, and believes that livelihood strategies, family environment and human resources will have an impact on vulnerability to poverty [40].

In the domestic research, Neil, a foreign scholar, uses panel data to evaluate the long-term poverty in Sichuan Province based on the vulnerability measurement criteria. He believes that the characteristics of vulnerability are similar to those of long-term poverty, but for families with different consumption levels, the causes of vulnerability to poverty are diversified and inconsistent [41]. Scholars in China mostly use quantitative analysis to measure vulnerability to poverty. Li Xiaoyun et al. design and adopt the method of indexing the upgrading assets of farmers and the questionnaire method to quantify the assets of farmers and analyze the vulnerability of peasant households: they measure the human assets, natural resources, physical assets, financial assets and social assets of peasant households, and the value of these five livelihood assets can reflect their vulnerability; They also use the on-site questionnaire survey method to classify the sampled peasant households according to their living assets, and

believe that the peasant households with multiple asset deficiencies have the highest vulnerability to poverty [32]. Similarly, Wan Guanghua et al. quantify household capital by referring to the international general measurement model, and predict the future income level of peasant households through their asset endowment, so as to measure their vulnerability to poverty [31]. In addition, on the basis of defining vulnerability as expected poverty vulnerability, Yang Long et al. use the expected vulnerability to poverty model to analyze and assess peasant households' vulnerability, and measure peasant households' vulnerability with its average and volatility [42]; Gao Shuai et al. use the field survey data in the extremely poor areas of Taihang Mountains, from the perspective of "energy enhancement", using capacity, rights system and VEP methods, study how to alleviate the vulnerability of peasant households and explore the sustainable livelihood of peasant households [43]. Liu Qian et al. take Qinling Bashan Mountains as the research object, and take health, education, disasters, accidents, economic level, population, environment and other indicators as the vulnerability to poverty measurement system. K-means clustering analysis of the measurement results can divide peasant households into different vulnerability levels, and put forward corresponding poverty assistance suggestions for peasant households at different levels [16]. Li Li et al. divide the vulnerability line into low vulnerability line and high vulnerability line based on the poverty incidence rate of 50%, that is, if the poverty incidence rate of a family exceeds 50%, the family is considered as highly vulnerable; They use the VEP method to measure vulnerability in groups, and believe that urban and rural, the age of household heads and the education level of adults would all cause differences in vulnerability to poverty [44]. Based on the VER method, Li Xiang et al. construct a poverty index including three dimensions of nature, livelihood and society from the perspective of vulnerability risks faced by peasant households and their corresponding coping capacity, and measure the spatial distribution of vulnerability to poverty in the region using nuclear density estimation method, spatial autocorrelation analysis and other measurement methods [45].

### 3.3 Hierarchy of Singing-Game Teaching

Contemporary teaching emphasizes that students' learning logic is based on life logic. If students' "life world" and "teaching world" are artificially separated, it will virtually lead to pure music teaching activities led by teachers or children's spontaneous pure music teaching activities. The two extremes of game activities lead to the loss of the subject status of students in learning. Therefore, the Singing-Game course is between the two ends of music and pure games, and the course model of the Singing-Game hierarchy is shown in Figure 1.



**Figure 1:** Singing-Game course hierarchy model



Teacher-led activities should be transformed from a single music teaching that lacked imagination, playfulness and other elements in the past to a comprehensive Singing-Game; in students' spontaneous activities, students can change from passive adaptation to active through the right to free choice and control participatory learning process. Taking the middle level, comprehensively create Singing-Game environment, design Singing-Game teaching, role reshaping, observation teaching, evaluation, feedback and other factors. Singing-Game emphasizes the comprehensive setting of the middle level, so that the game and music are like DNA double strands, blending and complementing each other.

### 3.4 Singing-Game Teaching Practice Suggestions

Combined with the analysis of Singing-Game teaching requirements in the curriculum standards over the years and the educational philosophy of the new art and new curriculum standards in the new era, the author puts forward some suggestions for Singing-Game teaching practice to provide reference ideas for music teachers.

First of all, Singing-Game emphasizes the perfect integration of music and games. The selection of music and the grasp of games are the most critical elements of Singing-Game teaching. The selection of music materials not only depends on the content of the teaching materials, but more importantly, the reasonable arrangement of the teachers themselves. Teachers can flexibly select according to the teaching materials and students' needs or combined with modern media information. In addition to changing the concept of single music selection, the grasp of game settings is also something teachers need to consider. When teachers do not intervene in the game, the children who have just entered primary school often laugh and yell uncontrollably, and more disputes occur, leading to classroom chaos and out of control. Similarly, if there is no proper observation, intervention and guidance, or timely evaluation and feedback on student behavior, Singing-Game may become a simple and repetitive game behavior.

Secondly, the real situational teaching environment is also essential for teaching. The preset Singing-Game stage provides students with a game place for music learning and a stage for displaying learning results. As the supervisor of the Singing-Game stage, teachers should comprehensively consider the knowledge, experience and interests those children have acquired, and pre-set the course content to arrange the Singing-Game teaching space and place teaching materials in advance. When arranging the Singing-Game teaching space, classrooms need to be arranged according to the content taught. The field can be inside or outside the classroom, so that they can be connected during Singing-Game activities and can complement and inspire each other. On the Singing-Game stage, students and teachers have equal status and are both game participants, and their roles can be interchanged. After teaching the music teaching content and conveying the rules, the teacher democratically allows the students to give full play to their autonomy and choose their identities. It is important to note that whatever role the teacher chooses to play, she should remain a keen observer of the age-appropriate and individual-appropriate development of the students throughout, so that instructional strategies can be layered over time.

Finally, evaluation is an auxiliary means to give feedback on teaching effects and continuously optimize teaching. In the teaching of Singing-Game activities, teachers can collect information through video recording, photo taking and other ways. Organize and analyze the information to clearly grasp the value of Singing-Game for the gradual realization of music curriculum goals. Evaluating students' development in the real activity situation of Singing-Game enhances the accuracy of the evaluation results and makes the evaluation more reliable and valid.

## 4. RESULT ANALYSIS

### 4.1 Analysis of farmers' vulnerability to relative poverty

Based on the data of households and heads of households in the CFPS database from 2012 to 2018, using the poverty vulnerability measurement equation, the relative poverty vulnerability of households is measured and the proportion of households with different degrees of poverty vulnerability is divided according to the relative poverty line of 0.4 set up above. The change of the proportion of households with different degrees of poverty vulnerability in the four periods is compared horizontally.

As can be seen from Table 3, more than half of the households surveyed in 2012 fell into different degrees of relative poverty vulnerability. Among them, the households with a relatively high proportion were in the range of 0.5-0.8, i.e. the households were more likely to fall into moderate poverty vulnerability in the future, while 18.12%

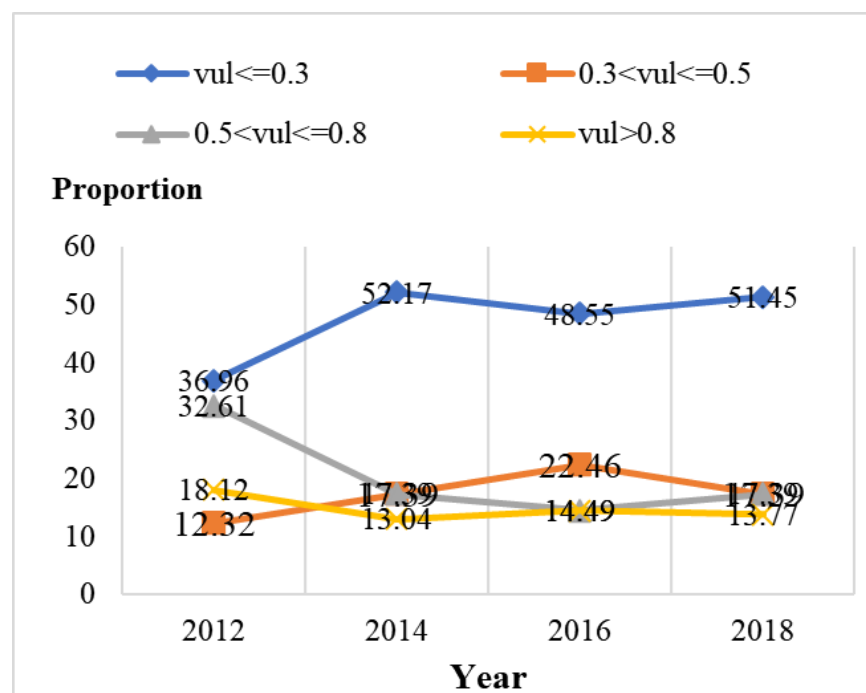
of the households surveyed might fall into severe poverty vulnerability in the future. The poverty problem of the households in that year was relatively severe. In 2014, the situation of farmers' relative poverty was somewhat reduced. 52.17% of the households surveyed had no poverty vulnerability, while 17.39% of households were in mild and moderate relative poverty vulnerability, while only 13.04% of households were in severe poverty vulnerability with a critical value greater than 0.8. In 2016, 22.46% of the households surveyed were vulnerable to mild poverty, while households with moderate and severe poverty vulnerabilities accounted for 14.49% of the total households surveyed. In 2018, 51.45% of households did not fall into relative poverty vulnerability, 13.77% of households were in severe poverty vulnerability, and 17.39% of households had relative poverty vulnerability in the range of 0.3-0.5. At the same time, 17.39% of households were in moderate poverty vulnerability, i.e. in the range of 0.5-0.8, the relative poverty problem of households was improved.

**Table 1:** 0.4 Farmers' Poverty Vulnerability Rate under the Standard (%)

Year	2012	2014	2016	2018
Vul $\leq$ 0.3	36.96	52.17	48.55	51.45
0.3<Vul $\leq$ 0.5	12.32	17.39	22.46	17.39
0.5<Vul $\leq$ 0.8	32.61	17.39	14.49	17.39
Vul>0.8	18.12	13.04	14.49	13.77

#### 4.2 Time Development Trend of Farmers' Vulnerability to Poverty

In order to better observe the change of relative poverty vulnerability of peasant households in Sichuan Province during the four periods from 2012 to 2018, this paper analyzes the time change trend of the proportion of investigated peasant households with different degrees of poverty vulnerability, and the results are shown in Figure 1. From Figure 1, we can see that the relative poverty of the farmers surveyed in 2012-2018 is gradually easing, and the broken line represented by relative poverty vulnerability (Vul) of 0.3 or less is generally increasing year by year, i.e. the proportion of households out of poverty has increased significantly as compared with 2012. The proportion of households with moderate poverty vulnerability is decreasing year by year, and the decline rate is more significant. Although the decline rate of the proportion of households with severe poverty vulnerability is less than that of households with moderate poverty vulnerability, the overall trend is still declining, which shows that the economic living conditions of households are gradually improving.



**Figure 1:** Time evolution trend of vulnerability of farmers to poverty.

#### 4.3 Based on the vulnerability perspective of Sichuan farmers relative poverty management focus analysis

After 2020, China has completed the arduous task of eradicating absolute poverty. Among them, as practitioners and beneficiaries of the fight against poverty, the living standards of rural residents have been continuously improved. Although they have got rid of absolute poverty, some farmers are facing the risk of returning to poverty, i.e. they have high relative poverty vulnerability. In this regard, this paper will conduct a research on the representative peasant households with severe and moderate relative poverty vulnerability in Sichuan Province from the aspects of cultural level, income source and health status, analyze various unstable factors in their production and life, and find out the possible causes that may lead them to return to poverty, so as to effectively solve the relative poverty problem of peasant households and consolidate the existing achievements in poverty alleviation.

First of all, in the survey of households with severe and moderate relative poverty vulnerability in Sichuan Province, the highest degree completed by the head of household was obtained. According to the data from 2012 to 2018, the vast majority of the individual interviewees do not have more than primary school education in each year, and even fewer have high school education. Farmers' low level of education will hinder their income growth from the following two aspects. The statistical data of 2012 show that among the 70 sample households with severe and moderate relative poverty vulnerability in Sichuan Province, there are 51 illiterate/semi-illiterate heads of households alone, accounting for more than 70% of the sample; After 2014, although the situation has improved slightly, heads of households with primary school education and below still account for more than 60% of the sample. In sharp contrast, the number of heads of households with high school education is less than 5% of the sample. The overall low level of literacy of householders may be an important factor affecting their vulnerability. However, since the reform and opening up, more and more people have chosen to go to the sea to do business. It seems that the influence of educational background on income no longer plays a decisive role. Therefore, it is necessary to compare the per capita income of heads of households with different educational levels with that of their families in order to further confirm the relationship between them. Taking the statistics of 2012 as an example, households with per capita income less than 1000 yuan accounted for half of the total number of households (52.86%), among which illiterate/semi-illiterate households accounted for 83.79% (i.e. 44.29% of the total number of households); Compared with 57.14% (17.14% of total households) of households with incomes between 1000 yuan and RMB3,000, and 66.67% (11.43% of total households) with incomes higher than RMB3,000. Comparing the income data of other education levels with the statistical data of 2014-2018, it is not difficult to see that in most years, the vast majority of households with per capita income less than that of 1000 yuan are illiterate/semi-illiterate; However, in households with a per capita income higher than that of 1000 yuan, less than 3,000 yuan and households with a per capita income higher than 3,000 yuan, the proportion of heads of households with education above primary school level has increased significantly. A lower education level is more likely to lead to a lower income level: with the increase of education level, the proportion of households with income less than that of 1000 yuan shows a downward trend.

Secondly, when we analyze the household income of the households with severe and moderate relative poverty vulnerability in Sichuan Province, we find that they have two significant characteristics: the income source is mainly from agriculture, and people are unwilling to try for career diversification. Both of these characteristics are in line with the general impression of families in rural areas, but few people delve into the details and make further understanding. By categorizing the main types of jobs of the interviewed heads of households, in the data after 2014, their own agricultural production and operation accounts for more than 70%. In 2012, it was 50%; But in that year, 44% of households were still unemployed. It can be surmised that during the period of 2012-2014, the local government provided employment support to these families who were in absolute poverty at that time, and most of them still chose farming as their occupation. Correspondingly, no more than 10% of the self-employed and migrant workers in the survey data over the years, which also includes agricultural migrant workers. From this, it can be seen that taking agriculture as the main source of income is an important feature of households with severe and moderate relative poverty vulnerability. Agricultural production is fragile. First of all, from ancient times till now, agriculture has been regarded as "eating from the sky": although modern technology has entered into agricultural production, the impact of natural environment on agriculture is still decisive. This summer, affected by extreme high temperatures, crops in many parts of Sichuan Province have withered and died due to lack of water, and are facing a decrease in production or even a complete loss of harvest. The attack on the peasants was undoubtedly devastating, and they could do nothing about it. If the household's primary source of income is agriculture, it is already vulnerable to harvest due to the instability of agricultural production. Secondly, today's agricultural production in China is still dominated by small-scale household production. Household units are

insufficient to support a complete industrial chain from fields to processing plants to the market. Farmers located in mountainous areas and other areas with inconvenient transportation also do not have large-scale sales channels. The prices of agricultural products are largely determined by the purchasers. At the same time, agricultural products are prone to corruption. In order to compensate for possible damage during transportation, the acquirer will lower the acquisition price. In order to sell as soon as possible and reduce losses, farmers may accept low prices, resulting in a decrease in income. Panzhihua, Sichuan Province is one of the main producing areas of mango in China, and is also a geographical indication of the country's agricultural products. A relatively mature product marketing channel has been formed in the area. Under such circumstances, the purchase price this year is around 3.6 yuan/kg, while it reaches at least 6 yuan/kg at retail. Therefore, in the current agricultural production in China, farmers are not only restricted by heaven, but also restricted by people and the characteristics of the agricultural products themselves. These three factors work together to make the households with agriculture as the main source of income more vulnerable to poverty. When we study the other two variables, we get another significant characteristic of the sample family. The vast majority of households have not tried self-employment, even if it is not the main source of household income, at most only 5% of households try to diversify their income in one year. In addition, at most only 15% of households own properties other than their current homes, which means that they do not have the opportunity to develop other sideline businesses, such as renting houses and building other properties into business premises. In fact, due to the seasonal characteristics of agricultural production and the development of China's agricultural modernization, industrialization and urbanization. Under the influence of the urbanization process, some farmers will try to diversify their income while engaging in agricultural production, such as working in cities and opening small shops. A large number of farmers are in such a "part-time" state that they occupy both land and non-agricultural industries. In the current environment, part-time employment is an important means for farmers to increase their income and enhance the stability of their income. Compared with part-time farmers, pure agricultural farmers not only have lower income, but also have more unstable income. In the future, it may be a good way to give policy support to these farmers with severe and moderate relative poverty vulnerability, to give them ideological persuasion, and to encourage them to develop careers other than agriculture.

## 5. CONCLUSION

In a word, the application of information technology in English teaching in secondary vocational schools is not only an improvement of teaching methods, but also a huge impact on the concept of education and teaching. Of course, the integrated teaching of information technology and secondary vocational English is not the whole of conventional teaching, nor is it suitable for use in every class. It is necessary to design teaching according to students' majors and learning characteristics, and more effectively apply multimedia and network technology to teaching according to teaching objectives. In English classroom teaching in secondary vocational schools, modern teaching media should be properly and skillfully used to assist teaching, stimulate students' interest, enthusiasm and desire to learn, change from "I want to learn" to "I want to learn", improve classroom teaching effect and make it serve teaching. In teaching, teachers should give full play to the advantages of information technology, provide students with a colorful teaching environment and powerful learning tools for their learning and development, and let secondary vocational students feel the power and charm of learning English.

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