PROMOTING A SELF-DIRECTED INTERACTIVE MODEL OF TEACHING AND LEARNING IN A CHINESE RURAL SECONDARY SCHOOL

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Keywords

1 Introduction

In the literature in educational sciences and learning and instruction, several theories are related to student active and interactive learning, such as the theory of self-directed learning, peer tutoring, active learning, learning by teaching, activity theory, cooperative learning and social-constructivist learning (Anderson, Reder & Simon, 1998; Bonwell & Eison, 1991; Mayer, 2004; Kirschner, Sweller & Clark, 2006; Robertson, 2011; Kim, R., Olfman, L., Ryan, T. & Eryilmaz, E., 2014). All these theories emphasize one or more aspects of learning processes that learners need to actively engage themselves cognitively or socially and interact with their learning environment or peers. Among these theories, self-directed learning (SDL) is an especially important one. It refers to a process in which students take the initiative with or without the help of others in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes (Knowles, 1975). The social-constructivist learning theory is also very relevant stressing the need for collaboration and interaction among learners (Duffy & Jonassen, 1992).

Based on the theories of self-directed learning and the social-constructivist learning, this study elaborates on a teaching and learning

model with a design of self-directed interactive learning in an English course at a Chinese rural secondary school.

At present, China is undergoing an educational curriculum reform. The philosophy underpinning this reform is to build "learning communities". In order to fulfill this aim, Chinese educators need to adapt their teaching styles and perspectives on teaching and learning. Among these aspects, student self-directed learning and cooperative learning by activity are considered to be important, as they can transform students' learning styles from passivity to initiative-driven, promote the students to participate in the process of teaching and learning, and move the focus from the indirect and outward experience to the intrinsic and direct experience. In other words, it can develop smoothly not only the students' knowledge, competence and skills, but also their values, attitudes and emotions.

Class sizes are big in China, usually ranging from 40 to 80 students, which creates for Chinese educators a serious problem of how to develop cooperative learning by activity. It is a challenge to design a suitable model of teaching and learning that can enable the building of a learning community and facilitate the students' learning efficiently. This was also a problem that the author had encountered as a teacher for many years. In order to solve it, the author developed, by constant testing and refining, a model of self-directed and interactive teaching and learning in an English course in a Chinese rural secondary school. This article plans to summarize three aspects of our achievement of this model: the basic concept and the internal mechanism, the four stages of construction, and the teaching strategy, and to share these ideas and experiences with interested educators and teachers.

2 The basic concepts and the internal mechanism of the designed teaching and learning model

Self-directed learning (SDL) includes both the cognitive and motivational dimensions of control and management of learning tasks (Garrison, 1997). It can support learners to develop their skills in a comprehensive manner, such as goal setting skills, information processing skills, other cognitive skills, decision making skills, and self-

awareness. In self-directed learning, the individual takes the initiative and the responsibility for what occurs. In addition, SDL gives students a broader role in the selection and evaluation of learning materials. Individuals select, manage, and assess their own learning activities, which can be pursued at any time, in any place, through any means, at any age. In schools, teachers can gradually help students and work towards student SDL. With this aim in mind, teachers emphasize SDL skills, processes, and systems rather than content transmission and tests. For the students, SDL involves initiating personal challenge activities and developing personal qualities to pursue them successfully.

The purpose of this self-directed and interactive model of teaching and learning is to construct an English learning community in the class. This designed model aims to: strengthen the cohesive force of the community of the whole class, allow for multiple levels of supervision, enable all participants to make progress at their own pace, improve the learning efficiency of all students, enhance student academic achievement, reduce teachers' burden, and realize the ideal that all students enjoy and are empowered by learning.

We take an example of a class with 50 students. In order to apply this model, we first divide the class of 50 students into four groups according to the results of their English test scores. The first group is the five best students, who are designated as the monitors. The second group comprises the students from the 6th to 25th places, who are designated as tutors. The third group includes the students from the 26th to 45th places, who are defined as tutees. Finally, the last 5 students who are at-risk make up the fourth group. Based on this division of roles, we draw an outline of the special 4-layer learning community (Figure 1), which is composed of "teacher", "monitor students", "tutor students", "tutee students" and "at-risk students". The teacher, at the highest layer, designs and controls the whole learning system. Meanwhile he/she instructs the five monitors directly at the first layer. The monitors are the second layer. Each monitor not only monitors 4 learning groups (each group has a tutor and a tutee) directly, but also helps an at-risk student. 20 Tutors are the third layer. They take charge of the 20 tutees' study and accept the teacher's and monitors' supervision directly. The lowest level is the tutees. Each

tutee has a tutor to supervise his/her study, but in the learning community they receive the help not only from their tutor, but also from teacher, monitor and tutee peers. When the learning system is built, the learning community is formed. In the learning community, teachers can communicate with each level of students directly and smoothly; all kinds of information channels work efficiently, and it is helpful to develop a supporting atmosphere in the community and relationships for teacher and students in the classroom.

Analyzing the structure of this model, we can find out that among these five components there has emerged a holistic relationship that is not only interconnected but also interactive. This self-directed-interactive model gives the teaching and learning "a multi-center structure" and "a three-dimensional feedback-promotion mechanism" (Figure 2). In the meanwhile, it allows everybody to be at the center of teaching and learning, and the center of care and concern in the learning community. Therefore, during the students' English learning process, everyone has abundant learning opportunities to promote and enhance his/her achievement to the largest extent.
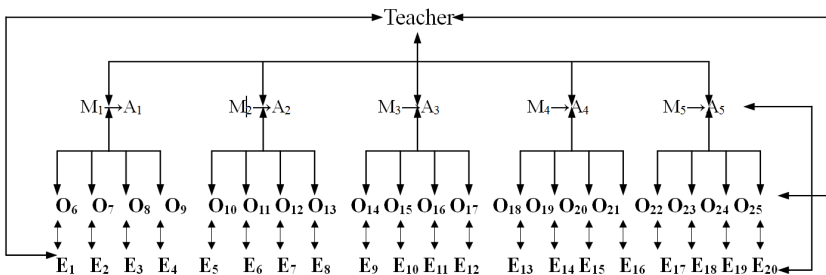

Figure 1 The Structure of Self-Directed Interactive Organizational Mode of Teaching and Learning

Note: M-Monitors; O-Tutors; E-Tutees; A-At-risk students

2.1 The Tutee-Center

One of the highlights in the learning community is that everybody helps and cares for the tutees whose learning achievements are not good (Figure 2-1). The power of the help and care from their teachers and peers can support them to overcome their learning barriers and enhance their learning motivation. When a tutor and a tutee make up a small cooperative learning group, the tutor not only helps the tutee to solve the learning problem within a reasonable time but also provides him/her with a learning model to observe and imitate closely from the tutor. This observation can enhance or activate the tutees to behave in a similar fashion. In the meanwhile, the monitor not only supervises the tutors to carry out the coaching assignment, but also assists the tutors to deal with the tutees' learning difficulties. In addition, the teacher also supports and gives advice to the tutees to obtain further successful learning experiences through investigation, observation, communication, and providing timely feedback to them.

2.2. The Monitor-Center

The monitors are the figureheads of all learning activities. They are the centrifuge of the teacher, tutors and the at-risk students (Figure 2-2). As they are the monitors, they have the higher ambition, self-control and sense of endeavor. The monitors have the responsibility to help the at-risk student to build up the confidence to overcome learning difficulties and attain progress, lead the whole class to create a good learning atmosphere and work towards higher achievement. These duties can develop and enhance their managing competence and social responsibility. Furthermore, when they organize their own groups to develop the learning activities, they face challenges and competition from the tutors too. These challenges and competition can facilitate the monitors to improve their learning strategies and activities. In the meanwhile, as the monitors are directed by the teacher directly, they may acquire more opportunities for effective learning.

2.3 The Tutor-Center

The tutors have an important role in helping tutees to make progress in their learning. They are the self-developed center of the
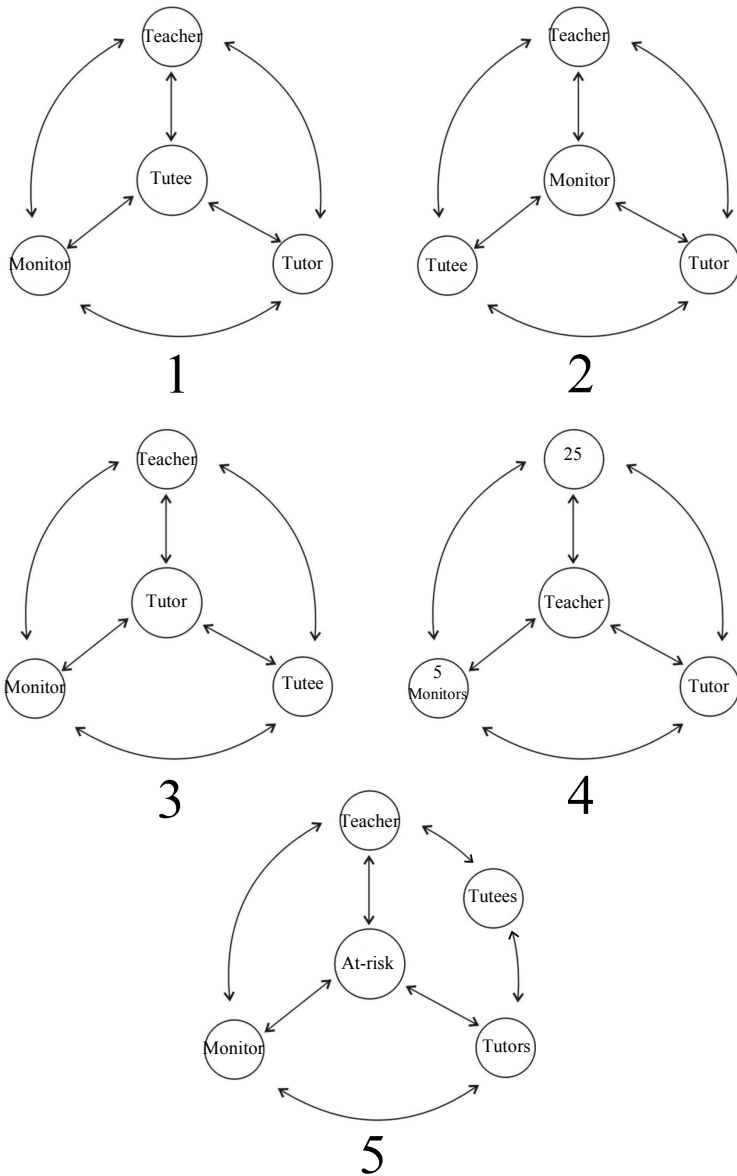
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Figure 2: The inner structure of self-directed-interactive model of teaching and learning

learning community (Figure 2-3). While the tutors are facilitating the tutees' learning, they are further consolidating and assimilating their own memory and comprehension of the knowledge which they had previously acquired. At the same time, they become aware of the unsuccessful learning strategies from the tutee to avoid making similar mistakes themselves.

Besides these advantages, the tutors can practice and enhance their self-management competence, take the monitor as examples to promote themselves to pursue higher learning achievement and gain constant progress and development. However, if tutors confront any difficulty or frustration in the process, the teacher and monitor will always give them a warm hand to conquer these problems in a timely manner.

2.4 The Teacher-Center

The teacher is one of the interactional centers in the learning community too (Figure 2-4). The teacher can create an authentic learning environment in the classroom by planning and organizing carefully and creatively, managing and controlling dynamically and effectively. Because the teacher is the core of the learning community, he/she should trust and depend on the monitors, train and instruct the tutors strictly and in time, and give more support to the tutees. In the meantime, the teacher should adopt various approaches to ensure diverse multi-learning activities to be carried out in order and effectively. When the learning community becomes mature, the workload, such as organizing, managing and supervising the classroom, will be reduced, and the teacher can devote more time and energy to other high quality instruction and learning design.

2.5. The At-risk Student-Center

The self-directed interactive model of teaching and learning especially cares and helps the at-risk students who encounter the serious learning problems (Figure 2-5). As the best students in the class, monitors have more excellent and successful learning experiences to help the at-risk students rebuilding their confidence to conquer the learning obstacles. With the teacher's guidance, monitors

can draw out feasible learning plans which are related to the at-risk students' actual learning problems. These measures can help the at-risk students to try the successful learning approaches gradually and enhance their learning motivation. At the same time, the at-risk students can be supported by the tutors and encouraged by the progress made the tutees. All these factors can encourage them to approach the good behavior and better academic achievement. Furthermore, the teacher not only organizes the peers to support the at-risk students, but also advises on good learning methods and gives direct encouragement. In the learning community, all of these activities work effectively, especially for the at-risk students. It can empower all members of the learning community with confidence and courage to face the challenge and difficulties in their learning processes.

3 The four stages of construction

During the long--period of practice and research in the Chinese rural secondary English teaching field, we realized that in order for the self-directed interactive model of teaching and learning to work well and efficiently, teachers should pay attention to the four stages of construction: "elaborate design", "gradual maturity", "independent operation", and "reinforcement and development". With the development of the different phases, there are two transitions during the process. The first transition is that teachers transfer from the authority of control to the facilitator for students gradually. The other transition is that students develop themselves from passive acceptors to active learners continuously.

Stage 1: Elaborate design

The work to set up the "self-directed interactive teaching and learning" starts when the fresh students enter the secondary school. Before the start of the new school year, the teacher collects all available information about his/her fresh students, including their name, gender, knowledge level, socioeconomic background, etc. Based on the available information, the teacher begins to design the teaching and learning model as elaborated above, the self-directed interactive model. After one week of the new school year, the teacher starts to

assign the monitors, tutors, tutees and at-risk students based on their previous English proficiency level and the assessment during the first week. At the same time, the teacher makes clear to all students the aims of this approach and their responsibilities in the learning community. During the first stage, the teacher makes efforts to demonstrate how to develop learning activities, how to collaborate with others and how to work efficiently between dyads or groups. In order to promote real collaboration, the teacher should pay attention to the actual interaction within each group, provide useful learning strategies, help all learning groups work smoothly, and deal with emerging problems in a timely manner.

Stage 2: Gradual maturity

At the second stage, the learning community is gradually getting mature as the monitors, tutors, tutees and at-risk students have accumulated some experience to communicate and collaborate with others. In addition, they have mastered some useful learning strategies and skills during the process. The students can perform their tasks freely at this stage. In the meanwhile, the discrepancy of learning competencies among students is also unveiled gradually. Therefore, the teacher should make some suitable adjustments among the monitors, tutors, tutees and at-risk students. The goal is to encourage the achieving students to make greater progress and to stimulate and help the less achieving students to adapt their learning strategies and approaches effectively. At this stage, the teacher does not need to participate in the group activities directly; instead he/she provides advice and supervises the overall activities of the learning community. The monitors are responsible for the detailed learning activities within groups and give support to the tutor-tutee learning activities.

Stage 3: Independent operation

After the second stage, the self-directed interactive learning mechanism has been formed. Students show greater interests in learning English. Within the learning community, they help and learn from each other and are actively involved in the learning activities. At the third stage, they can manage their own learning processes

independently with little supervision from the teacher. The monitors gradually play a more important role to lead and supervise the learning activities of the different groups. The tutors and tutees also take part in the various learning activities and benefit from the self-directed and interactive learning approaches. If there is any student who is lack of self-regulation and has learning difficulties, they can always get help from a peer student in the learning community.

Stage 4: Reinforcement and development

After the independent operation stage, the teacher should take some measures to reinforce this teaching and learning model. The main work includes the following three aspects.

The first aspect is that the teacher emphasizes the development of "the distinguished students" and helps them attain higher academic achievement. These students are expected to have higher self-discipline and self-direction. Moreover, the teacher also gives slightly more difficult assignments to stimulate them to study more diligently, develop their learning competence further, in order to reach a higher level of achievement.

The second is that the teacher should take notice of any progress made by the "at -risk students", and prevent them from falling behind the learning processes in the learning community. In a class, there are usually some "at-risk" students who are in poor learning conditions, due to family reasons such as lower social economic status, unsound family relations, or physiological or psychological problems. For these "at -risk students", the teacher should try to identify the roots of the problems, and help them to tackle these difficulties. Moreover, the teacher should mobilize the power of all students, and encourage the other students to help the lagging-behind students. In this way, the "at-risk students" will get motivated and start to enjoy learning in the learning community.

The third is that the teacher should organize activities for all students to share their experiences in this learning process. Through experience sharing, each student can feel that they are part of the learning community and their efforts are valued by others. Therefore, it is an effective approach to strengthen the learning community.

In summary, a holistic relationship emerges in the four stages. During the whole process, the teacher can make necessary adaptations at each stage to facilitate the learning and development of the students.

4 Strategies for successful implementation of this model and experience gained

In order to carry out the learning activities and guarantee the learning aims to be achieved, we summarize the following effective strategies in order to successfully implement the self-directed interactive model of teaching and learning:

4.1. Set up the learning goals and assignments clearly

The power of self-directed interactive model of teaching and learning is that the whole class has a clear orientation of their learning goals and tasks. During the process, based on students' diverse competence levels, the teacher works with the students to plan and design the diverse personal learning goals and assignments. Each student gets an individual learning plan in a short, medium, and longer term. In this way, in each period each student has a prospect for success(Makarenko,A.S.,1938). This approach is helpful to stimulate and maintain student motivation effectively. As the students can achieve their goals in a gradual way, it is easier for them to experience a sense of success, which is helpful to transform the students from a passive acceptor to an active self-directed interactive learner. If some goals or assignments are too difficult, necessary adjustments should be made. Consequently, the joyful learning experience can facilitate the students to develop both academically and also as a person.

4.2. Build a sound learning environment

During the learning process, we positively nurture a sound classroom climate and a positive, energetic learning atmosphere. More specifically, the following approaches are helpful to build an effective learning environment.

1). Use visual instruments or objects to facilitate teaching and learning. Using visual instruments or objects can stimulate students' curiosity

and learning interests. For example, we often bring real objects into the class such as sporting goods, fruit, and food and integrate them into the learning activities.

2). Make full use of learning resources. Learning resources next to the text books can be very useful for enhancing student learning, such as English songs, lyric poems, and movies.

3). Make use of famous sayings or mottos in English or in Chinese. We advise students to select some famous sayings that are encouraging and inspiring for their learning spirit. These sayings or mottos can be written and posted at notable places in the classroom. This is a very helpful approach for student self-direction.

4). Facilitate an enjoyable learning environment. We organize the students to arrange vivid learning scenes in the classroom, and attract them to take part in easy and joyful learning activities.

5). Mobilize the collective power of the class. If there are any problematic and weakly-disciplined students in the classroom, the teacher should not only mobilize the whole class to help the at-risk students, so they can regain their confidence and courage to learn in a friendly learning community. In the meantime, the others can also learn some lessons from the peers.

4.3. Encourage the students to develop the self-directed interactive learning activities

The teacher should provide abundant learning opportunities for the students to be attracted to develop their own learning activities. While they practice the learning activities, they attain rich learning experiences. With the accumulated learning experiences, the students are stimulated to be eager to learn more and newer things. With the expansion of their knowledge, all students can reach a higher achievement. Every week, the learning groups rehearse a small English play based on the learning material and present to the whole class regularly. After each successful performance, the students get a small reward. An English corner is organized twice a week for students to practice their oral English. An oral competition is also organized once a week among the class by dividing all of them into four groups. This

approach is beneficial for student group communication next to the learning groups as previous described in the monitor-tutor-tutee model. In addition, the monitors host the weekend English forum on a regular basis, at which every student has opportunities to discuss any issues related to their learning or their life. Furthermore, we also encourage the students to prepare English plays for school-wide activities. In this way, students can strengthen their connection with other schoolmates, teachers, and parents.

4.4. Meet the needs of individual students based on their individual characteristics

Students in junior secondary school are at their early years of adolescence who are very active in their thoughts, actions and emotions. Although there are some common features among the students, each of them is very different with their own characteristics, merits or problems. Therefore, the teacher should try to understand their individual differences through observation, talking with them and be friends with them (Zankov, L.V., 1977). More specifically, we developed the following strategies for the monitors, tutors, tutees and at-risk students. 1) It is very important to well-select and give guidance to the monitors. The monitors are the delegates of the teacher. 2) It is essential to let the tutors to play an active role in helping the tutees. 3) Understand the specific features and needs of the tutees and provide support based on their actual needs. 4) Support the at-risk students with care and a positive learning atmosphere.

5 Conclusions

The self-directed interactive model of teaching and learning presented in this paper integrates multiple learning theories and learning activities, which are helpful for students to construct and apply their knowledge, as well as develop their organizational, social and self-regulation skills. Consequently, the students can strengthen their learning responsibilities and competence to learn in a self-directed and collaborative way. Self-directed interactive model of teaching and learning can enhance students' self-esteem, self-regulation and self-assessment. Furthermore, these activities inspire

student learning interests, improve their learning outcomes, and promote the healthy development of student ability and intelligence. The construction and practice of the self-directed interactive model of teaching and learning in this study proves that it is an effective way to improve teaching and learning, and promote the academic and social development of students.

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Abstract

During the early teaching career of the author, she applied and promoted for many years, a self-directed interactive organizational model of teaching and learning in English courses taught in a rural secondary school. The hierarchical structure in this model includes "teacher", "monitor students", "tutor students", "tutee students" and "at-risk students" as the members of the learning community, among which there emerged a holistic relationship that is not only interconnected but also interactive. This model enables the teaching and learning to have a "multi-centered structure" and a "three-dimensional feedback-promotion mechanism". The model describes four stages of student development, which are described as "elaborative design", "gradual maturity", "independent operation" and "reinforcement and development". The strategies incorporated into this teaching and learning model include: (1) selecting and clarifying the learning objectives; (2) selecting, preparing and making effective use of the monitors and tutors; (3) guiding the students to design and develop more and richer English learning activities; (4) cultivating positive learning climate in the class; (5) facilitating each student to make progress at the individual level.

Résumé

Durant le début de carrière dans l'enseignement de l'auteur, elle a utilisé et préconisé pendant de nombreuses années, un modèle autodirigé interactif d'organisation de l'enseignement et de l'apprentissage dans les cours d'anglais dispensés dans une école secondaire en milieu rural. La structure hiérarchique de ce modèle inclut «enseignant», "étudiants moniteurs", "étudiants précepteurs", "étudiants tutorés" et «élèves à risque», les considérant comme des membres de la communauté d'apprentissage, parmi lesquels une relation holistique s'établira qui est non seulement interconnectée mais également interactive. Ce modèle permet à l'enseignement et l'apprentissage d'avoir une «structure multi-centrée» et un «mécanisme d'évaluation rétroactive en trois dimensions". Le modèle décrit quatre stades du développement de l'élève, qui sont décrits comme «conception de la mise au point», «maturité progressive», "fonctionnement indépendant" et "le renforcement et le développement". Les stratégies intégrées dans ce modèle d'enseignement et d'apprentissage comprennent: (1) la sélection et la clarification des objectifs d'apprentissage; (2) la sélection, la préparation et l'utilisation efficace des moniteurs et des tuteurs; (3) aidant les élèves à concevoir et développer plus et mieux les activités d'apprentissage de l'anglais, (4) cultivant un climat d'apprentissage positif dans la classe; (5) facilitant le progrès de chaque élève à son niveau individuel.

Samenvatting

Tijdens de vroege onderwijsloopbaan van de auteur, heeft zij gedurende vele jaren een autonoom interactief organisatiemodel gebruikt en gepromoot, om het onderwijzen en leren van Engels in een landelijke middelbare school te verbeteren. De hiërarchische structuur van dit model omvat "leraar docent", "monitor studenten", "mentor studenten", "begeleide studenten" en "risicostudenten", als leden van de onderwijsgemeenschap, waaruit een holistische relatie ontstaan is die niet alleen de onderlinge verbondenheid stimuleert maar ook interactief is. Dit model geeft het onderwijzen en leren een "multicentrische structuur" en een "driedimensionaal feedback-promotie-mechanisme". Het model beschrijft vier stadia van

ontwikkeling bij de student. Deze worden omschreven als "uitwerking van het ontwerp", "geleidelijke volwassenheid", "zelfstandige werking" en "versterking en ontwikkeling". De in dit onderwijs- en leermodel opgenomen strategieën omvatten: (1) het selecteren en verduidelijken van de leerdoelstellingen; (2) het selecteren, voorbereiden en optimaal gebruik maken van de monitoren en mentoren; (3) het sturen van de studenten om meer en rijkere Engelse leeractiviteiten te ontwerpen en te ontwikkelen; (4) het kweken van een positief leerklimaat in de klas; (5) de vordering van elke student op individueel niveau vergemakkelijken.

摘要

经过长期的实践探索，作者在中国农村初中英语课程中创用了"自主互动教学组织模式"，它实际上就是在班级里建构和形成一个英语学习共同体。这一学习共同体，由"教师""辅导生""课代表""发展生""重点发展生"等组成，他们之间形成了相互渗透、相互联系又相互作用、相互促进的关系，从而具有了"多中心结构"和"三重督促机制"。自主互动教学组织模式的建构与形成过程，包括"精心组建""逐步成熟""自主运行"和"巩固发展"四个阶段。它的有效策略包括："确定学习目标和任务""创造学习英语的良好氛围""引导学生自主组织英语学习活动"以及"因材施教，实现每个学生的学习进步"。

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