The Group Cooperative Learning: Value, Practice and Reflection

—Taking Primary School Mathematics Teaching as an Example

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Abstract—The Group Cooperative Learning is one of the important learning methods advocated by the new curriculum reform. Because of the influence of the traditional cognitive teaching theory of "paying attention to the result of knowledge acquisition and neglecting the process of knowledge acquisition" for a long time, the value of The Group Cooperative Learning is more limited to the effective application strategy of acquiring knowledge in classroom teaching, ignoring its "ontology" of the value of the study. The Group Cooperative Learning plays an important role in promoting overall development. This paper expounds the value of The Group Cooperative Learning: the value of cognitive development, the value of social development and the value of emotional development. This paper reveals the problems existing in the process of The Group Cooperative Learning in primary school mathematics, and explores the strategies of how to effectively exert the value of The Group Cooperative Learning in primary school mathematics teaching, so as to give full play to its value for the primary education and teaching activities consciously and effectively to provide a broader perspective.

Keywords—*The Group Cooperative Learning; value; practice; thinking; primary school mathematics*

With the deepening and development of the new curriculum reform, the study of group cooperative learning, as the new curriculum strongly advocates, has also entered the focus stage. For a long time, under the influence of traditional cognitive pedagogy, which emphasizes the results of knowledge acquisition and ignores the process of knowledge acquisition, the value of group cooperative learning is more limited to the effective use of knowledge acquired in classroom teaching, while the value of "ontology" is neglected. Group cooperative learning is of great value in promoting students' all-round development. This paper expounds the value of group cooperative learning: cognitive development value, social value and emotion development value, through the interview of the elementary school mathematics teacher, that discipline group cooperative learning in the elementary school mathematics problems that exist in the using process, exploring the way group cooperative learning in the elementary school mathematics teaching efficiency value strategy, to fully play its value, a line consciously and effective to carry out the education teaching activities to provide a more broad perspective.

I. VALUE OF GROUP STUDY

Group learning is one of the important learning methods advocated by the new curriculum. As to its connotation, domestic and foreign scholars have interpreted it from different perspectives. According to Slavered., a professor at Johns Hopkins university in the United States, "cooperative learning refers to classroom teaching techniques that enable students to engage in learning activities in groups and receive awards or recognition based on the results of their entire group." [1] the Johnson brothers (D.W.), a famous scholar at the university of Minnesota and a major representative of cooperative learning, believed that "cooperative learning refers to the use of groups in teaching so that students can work together to maximize the learning of themselves and others." [2] Chinese scholar wang tan defined cooperative learning as: group learning takes heterogeneous learning groups as the basic form, and systematically utilizes the interaction between teaching dynamic factors to promote students' learning. It takes the group achievement as the evaluation standard, achieves the teaching goal together the teaching activity. [3] From the perspective of common features, each definition focuses on the influence of collective and individual as well as individual and individual in group cooperation, and emphasizes the dynamic role of goals, cohesion, rewards and other factors in group cooperation learning.

About the comprehensive value of cooperative learning, some scholars put forward the theoretical hypothesis of cooperative learning group, namely "cooperate with others of the teaching goal or task can promote cooperation between the students, more effectively stimulate students' self-consciousness, guides the student to respect others and self-respect, cultivate the students' active participation and cooperation, make the student acquire social skills, it is the student in the real collective individual vivid development effective way." [4]

From the perspective of the relationship between structure and function in philosophical theory, the grouping structure of "intra-group heterogeneity and inter-group homogeneity", the composition of cooperative relationship and corresponding dynamic conditions make it have unique functions and values:

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A. Cognitive development value

Group cooperative learning germination and rise in foreign countries, in the 21st century into China's basic education curriculum and teaching reform practice, has become an important way of learning. The development theory of group cooperative learning explains the value of group cooperative learning from the role of cognition. It is believed that the influence of cooperative learning on the completion of tasks is reflected in whether each group member has improved their cognitive level in the process of reaching the group goal. There is no doubt that the dynamic system of "intra-group heterogeneity" in group cooperative learning has a stimulating and supportive role for poor students, and has important cognitive development value for exerting the influence of "parallel education", establishing cognitive structure, stimulating thinking and improving cognitive level. The study results of foreign programs in primary and middle schools also indicate that group study can help improve the academic performance of primary and middle school students. However, under the influence of traditional cognitive teaching theory, its cognitive development value is still regarded as the first or even the only value.

B. Social development Value

The "cooperative" feature of group cooperative learning makes it have obvious social development value, that is, the role of group cooperative learning in students' social adaptation, social participation and social practice. The famous Soviet educator Makarenko once proposed the collectivism education thought, advocated education individual in the collective, promoted the individual's growth and development. In social relationships, "team" members, according to the cooperative learning task collaboration through sufficient communication process, rich experience, from the accumulated experience and knowledge structure is not only thinking, more important is in "cooperation", the acquisition of cooperation consciousness, skills and rich self-cognition, cognitive and social cognition, which is from natural person to social person the necessary basic literacy. Compared with spontaneous social education or social learning, group cooperative learning is of great value in students' social development due to its characteristics of purpose, spontaneity and organization.

C. Emotional development value

Emotional development is a lifelong state of psychological development, and positive emotions are of great value to students' mental health. Positive emotions can be developed by the social relationships formed by group cooperative learning. Research by professor Slavered of the United States, has found that cooperative learning can enhance students' love of school and form cooperative and altruistic emotional cultivation. In cooperative learning, members develop positive emotions such as optimism, confidence and positive self-consciousness in cooperative communication and ideological collision, laying a psychological foundation for lifelong learning.

II. APPLICATION STATUS AND PROBLEMS OF GROUP COOPERATIVE LEARNING IN CLASSROOM TEACHING

Group cooperative learning has important values such as cognitive development, social development and emotional development. However, from the implementation of first-line education teaching activities, there are still many problems, and its value has not been fully displayed. The author interviewed several math teachers in a primary school with high teaching quality and in-depth progress in new curriculum reform. Moreover, the author conducted a listening activity in the classroom and summarized the current situation and existing problems of group cooperative learning in the application of classroom teaching.

A. Incomplete understanding of its value, and the value of cognitive development occupies the first or only position

As for the value cognition of group cooperative learning, foreign scholars pay more attention to students' self-concept, communication skills and social quality in theoretical research and practical exploration except cognitive development. As one of the learning methods of comprehensive development value, its value recognition has been narrowed due to the influence of traditional cognitive teaching theory and the general existence of large classes. Most teachers use group learning as a new way to acquire knowledge and some even only mark the implementation of the new curriculum concept. Asked, "What value does group learning have in addition to helping students master knowledge better?" Of the teachers interviewed, teacher A said: "group study can really help poor students to open their minds and use their brains so as to better understand and master knowledge. This is why cooperative learning is used in regular teaching, but more often than not, we feel it is a waste of time...", it can be seen that among all kinds of value cognition, cognitive development value is the first or the only one, which seriously affects the full play of the value of group cooperative learning.

B. Conducting in a mere formality and lacking in substantive cooperation

The value of group cooperation learning needs corresponding dynamic conditions, such as group formation and cultivation. At the same time, there should be objective conditions such as space and time guarantee, content applicability and guiding subject. From the results of interviews and observations, it can be seen that the "group" fails to be established in strict accordance with the standard of 4-6 students because of the number of students in class. The organizational form of class seriously restricts the spatial structure of the group. The phenomenon of two random rows before and after forming a group is prominent. The division of labor is empty, and some classes have very little communication between the group members. Students with excellent grades are dominant, and problems of "one speech" are prominent. Poor students have weak participation and insufficient thinking collision. There is no guarantee mechanism for group cultivation; From the objective conditions, the study time of group cooperation cannot be guaranteed, and it is usually carried out as a part of the teaching process with a short time, usually 5-10 minutes. Students do

not have enough time to discuss and communicate. In addition, the "cooperative task" of cooperative learning is not clear and the content selection is not appropriate enough. In the interview, I was asked "what is suitable for cooperative inquiry in the content of primary school mathematics?" "The teachers interviewed were not clear or did not know all the answers. Only a few teachers can think about the value of collaboration in terms of the content of the collaboration. In terms of teacher guidance, the effect is not obvious, and some teachers cannot correctly position their role, either laissez-faire or vertical intervention, lacking effective participation and guidance strategies.

The essence of these problems is to make the cooperation into a mere form and lack of substantive communication, which seriously affects the effect and value of group cooperation learning.

C. Teachers' evaluation places too much emphasis on cognitive results and neglects the multi-value orientation

Education teaching evaluation plays an important guiding role in education teaching practice. In the process of interview and classroom observation, the author found that some teachers did not have any evaluation on the results of group cooperative learning, and even lacked reporting links in the process of cooperative learning. Meanwhile, the evaluation subject was single, only for teachers, while the mutual evaluation among team members was ignored. Some teachers pay more attention to the correctness and scientific of the results or conclusions of cooperative learning, and pay little attention to such issues as how the thinking process is carried out, whether the thinking method is correct, students' enthusiasm for participation, whether the communication is sufficient and social quality. Its essence is that in education teaching evaluation, too much emphasis is placed on certain knowledge, while the value of process evaluation is ignored. The result will inevitably affect the implementation and achievement of the value concept of group cooperative learning.

III. SEVERAL THOUGHTS OF THE GROUP COOPERATION STUDY

There are both subjective and objective reasons for the problems in the application of group cooperative learning. In order to give full play to the value of group cooperative learning, it is necessary to explore from various aspects such as value orientation, cooperative learning mechanism and guarantee system to create favorable conditions for the value of group cooperative learning.

A. Establish the correct value orientation of group cooperation learning

The correct value orientation of group cooperative learning directly influences the practical process of cooperative learning. Teachers should strengthen the study of cooperative learning theory, especially the foreign theory of cooperative learning group and operation mode, at the same time thinking about our country foundation education and cultural traditions, the basis of the practice of a line of a profound comprehension of the basic intention of the new curriculum advocates the cooperative learning, and combined with their own practical

experience, careful analysis and summary for education, skills, cooperative learning group of self-awareness, social value, so as to set up the correct value orientation, consciously to guide teaching practice.

B. Establish an open group cooperation learning mechanism

The development of group cooperative learning requires the process of grouping, cultivation, definition of cooperative goals, division of labor, implementation and evaluation, and each link is a key factor influencing the value of group cooperative learning. In view of the problems existing in the process of group cooperative learning, the author proposes to establish an open group cooperative learning mechanism and reform it from the aspects of time, space, implementation and evaluation: firstly, guarantee the space and time of group cooperative learning. On the one hand, team formation and cultivation can be carried out by the head teacher. With the universal implementation of the excellent teacher project, general teachers can take the role of team cultivation, focusing on the cultivation of cooperative skills and attitudes. On the other hand, in the process of implementation, group cooperative learning can not only understood as a link in the teaching process, should be based on cooperative learning goals and content, targeted, such as cooperative learning goals and content focus on stimulating students' thinking, open mind and reconstruction of cognitive structure was obtained, it can be assumed to be a link in classroom teaching, using the education of information technology is convenient, time can guarantee in 10 to 15 minutes, if the cooperation learning goals and content focus on the formation of social quality, cooperative learning is to expand to outside of time and space, combined with the mathematical knowledge, to carry out community activities, For example, the content of "survey and statistics" in the primary school mathematics subject has strong practicality, which is of great significance to the formation of students' good social quality, and it is more open in time and space. Second, the implementation process of group cooperative learning is regulated. In terms of division of labor, cooperation and communication, teachers should play a leading role and strengthen regulation of all links. Finally, the study focuses on the multi-evaluation of group cooperative learning, and takes multiple considerations from the aspects of evaluation subject, evaluation object, evaluation feedback, etc., so as to avoid the singleness of the subject, the narrowing of the content and the time-out of the feedback.

C. Accelerate the formulation of a cooperative learning guarantee system

The effective implementation of group cooperative learning requires relevant policies and conditions to accelerate the establishment of cooperative learning security system. The author believes that the group cooperative learning security system should include both micro and macro levels to form a complete and continuous system.

From the microscopic point of view, we should establish the system including group cultivation, group cooperative learning guidance and group cooperative learning assessment. The group cultivation system mainly includes the subjects, time, place and examination, etc. The group cooperative

learning guidance system mainly includes clarifying the principles of division of labor, responsibilities and other issues, and stipulating the role and role of teachers in cooperative learning. The assessment system of group cooperative learning mainly includes the evaluation of group cooperative learning, especially the evaluation of students' participation and effect, which reflects the multi-value orientation of group cooperative learning, and also includes the filing of related assessment materials.

From a macro point of view, the need to develop a series of system break through the bottleneck of cooperative learning group, such as facing the current problems of large amount of common, how to break the time and space will space to expand to the community, how to guarantee the campus learning and external connection, such as establishing the hierarchy system of cooperative learning group, the requirements to open design of curriculum system, formed from the discipline teaching to the theme activity, to the area or community activities subject system, the cooperative learning teaching indoor to outdoor, and even social, The value of cooperative learning changes from the construction of narrow knowledge structure to the cultivation of social qualities such as cooperative attitude and skills, innovative spirit and practical ability, democratic and harmonious coexistence.

In addition, the improvement of the lifelong education system of the whole society is an important guarantee for the value of cooperative learning, such as the formation of the

community learning atmosphere and the support of each department for the establishment of a learning society.

IV. CONCLUSION

Group cooperative learning mode plays a unique role in individual development, which not only contributes to the development of individual cognitive ability, but also its unique "social environment" is of great value to individual social development and emotional development. As far as the implementation status of group cooperative learning is concerned, there are still problems such as formalization and formalism, etc. Therefore, the group cooperative learning mode needs to be reformed urgently, and attempts and explorations should be made from the formulation of macro system to micro system and the construction of social environment.

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