

The Cultural Contemplation of Inquiry Teaching in China

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Abstract

In China, the theoretical research of inquiry teaching has achieved fruitful results, but some misunderstanding and problems still exist in practice: There are some inquiry teaching that is the lack of clear teaching objectives; some inquiry teaching that is the lack of "inquiry" in teaching; some teachers unilaterally use inquiry teaching instead of the traditional teaching; some inquiry teaching processes are mere formalities; there is the lack of teaching standards. In this paper, we review inquiry teaching from the perspective of the culturology and try to improve the rational thinking of the practice of inquiry teaching. In establishing a cultural contemplation view for the inquiry teaching, teachers need to change their personal philosophy and cultural views, create democratic and harmonious cultural atmosphere, form a stable inquiry community and take a cultural evaluation method.

Key words: Inquiry teaching; Cultural contemplation; Inquiry Community

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INTRODUCTION

The domestic and foreign scholars have achieved fruitful results in theoretical research on inquiry teaching, which

can provide guidance for the practice of different aspects. However, inquiry teaching comes from abroad, only indepth study of the inquiry environmental and exploration of inquiry conditions is able to link the theory with practice in the process of its localization. In practice, if educators do not have clear philosophical views or even they are departure from the inquiry teaching belief, it will inevitably lead to misunderstanding in practice, for example, some teachers do not have corresponding inquiry objectives in inquiry teaching; some teachers do not have specific objectives to achieve and they let students make completely unrestrained inquiries; inquiry teaching becomes generalization and is the lack of "inquiry" nature; there is inquiry process formalization that is in accordance with a fixed form to inquire; the evaluation of inquiry teaching mainly is rigid summaries, and it is lack of flexible evaluation. Why does the profound theory of inquiry teaching cause so many problems? Some scholars believe that the teachers lack capacity, some believe that teaching materials are not suitable for inquiry and some scholars think that the problem is the evaluation mechanism. In recent years, with the deepening development of the reform of the education system, the relevant teacher training has been carried out and the content of teaching materials has been also made with the corresponding adjustment. Especially after the new curriculum reform, there have been a lot of excellent materials for the inquiry teaching. However, it seems that there are no real solutions for these problems. In this paper, the author believes that it is possible to solve these problems of inquiry teaching through exploring the real causes behind the phenomenon from a cultural perspective.

1. SCAN MISUNDERSTANDING IN INQUIRY TEACHING

Inquiry teaching has become one of the important teaching ways since the new curriculum reform began. It also is an

important core idea of education. However, there are still some misunderstandings in the specific implementation processes. The author thinks that there are the following problems: inquiry teaching objectives are fuzzy; some inquiry problems are not worth to "inquire"; inquiry teaching becomes a mere formality, some teachers only pay attention to the teaching model of inquiry teaching and completely abandon the instructional method; inquiry teaching evaluation criteria have to be improved.

1.1 Teaching Objectives: The Lack of Clear Inquiry Objectives

In a middle or primary school classroom, the teacher often lets students be free to carry out inquiry learning after he introduces the primary teaching content. And the teacher does not clearly point out what is the inquiry objective; even it is possible that the teacher himself does not have an inquiry objective. Some teachers think that it is alright as long as students are active. Even more, in the teaching process, some teachers take a student's arbitrary question as the focus of classroom inquiry, in other words, taking randomly generated teaching resources as inquiry teaching objectives. Here, the author cites a teaching case to show the problem: in a Chinese class, when students study the text of "The Struggle between a Snipe and a Clam", student Xiao Chang points out that the text has a problem. In the text, the snipe threatens the clam: "If you do not open your shells, just wait and see. It does not rain today. It will not rain tomorrow. Without water, you will die on the beach!" Student Xiao Chang says, "The clam holds the beak of the snipe. How can the snipe speak?" (Zhou, 2004) For solving this problem, the class begins to inquire, eventually these students decide to write a letter to the editor and put forward the problem. This kind of "free" inquiry affected by an individual student's extreme thinking seems plausible, but it actually neglects the teaching object itself and is contrary to the original intention of inquiry teaching. This kind of "free" inquiry does not benefit the teaching.

1.2 Teaching Content: The Lack of "Inquiry" in Inquiry Teaching

It needs to choose suitable teaching content before inquiry teaching. Inquiry teaching begins with a question, so choosing the teaching content is equal to choose suitable inquiry questions. Before the class, the teacher should have adequate presuppositions for the feasibility and operability of the inquiry activities to make the class run smoothly (Li, 2010). In an actual teaching process, choosing the problems of inquiry teaching is not easy. Some inquiry problems are not representative and even do not need to be inquired. The students may solve some problems by researching relevant information, or some students may have already known the answers. In inquiry teaching, some teachers like to let students play a dominant role in the class and encourage students to put forward questions; some teachers respect students' opinions and let them decide inquiry issues; so the students actively ask questions and choose problems (Xu, 2009). However, the students' questions may not be suitable for inquiry: Some of the questions may be too difficult or beyond their level, some may be too easy, and some that do not need to be explored can be answered through researching relevant information. In teaching processes, teachers should not adopt the inquiry teaching method for teaching conceptual knowledge and teachers should mainly guide the students to quickly understand and master the conceptual knowledge. Therefore, teachers must control the degree of inquiry. Not all problems are suitable for exploring. In the implementation of inquiry teaching, according to the teaching objectives, teachers should choose inquiry problems which are worth to inquire, moderate level of difficulty, suitable for student levels. So it is easy to stimulate the students' desire to explore and activates students' inquiry thinking to achieve the best state of inquiry.

1.3 Teaching Processes: The Formalization of Inquiry Teaching Processes

Since the inquiry teaching is advocated in the new curriculum reform, inquiry teaching has been carried out rapidly. How is the actual situation? Some classes seem lively, but the students really get the benefit? Through careful observation, we can find that teachers may intervene in students collecting data against the preset inquiry objectives if the teachers have the preset objectives before inquiry teaching. Students seem lively in group discussion and cooperative learning, but these activities often belong to prior designed inquiry processes and the students follow the prescribed order of operation designed by teachers. In this kind of teaching process, students seem to have hands-on practice and explore the unknown, however, students often do not need to pay much attention to the inquiry problems, the inquiry problems do not activate students' inquiry thinking, the whole process is a process of demonstration and the inquiry teaching completely loses the inquiry essence.

1.4 Teaching Method: Only Emphasizing Inquiry Teaching

The inquiry, cooperative, independent teaching ways are advocated in the new curriculum reform. In order to meet the needs of the times, some teachers put too much emphasis on inquiry teaching in the classroom and the choice of teaching methods. Some teachers give up all the other teaching ways in order to promote the inquiry learning and take inquiry teaching method for any teaching content and theme in the classroom. This approach completely put inquiry teaching in opposition to the traditional teaching, either this or that. In 1998, Sfard published "On Two Metaphors for Learning and the Dangers of Choosing Just One" in the second edition of "Education Researcher". In the paper, Sfard formally put forward two kinds of metaphor of learning – acquisition metaphor and participation metaphor, only choosing one is dangerous (Sfard, 1998). Lecture-based teaching and inquiry teaching are typical representatives of acquisition metaphor and participation metaphor respectively, only choosing one is dangerous. We should make an organic combination of the two, according to teaching objectives and content, timely choose the suitable teaching method.

1.5 Teaching Evaluation: Inquiry Teaching Evaluation Needs to Be Improved

Teaching evaluation should become an improving process based on the final evaluation of its value, advantages and disadvantages that come from systematic investigation, evaluation, feedback on students' learning and teachers' teaching according to teaching objectives and standards (Li & Wei, 1998). From this definition, we can see the inquiry teaching evaluation is divided into two parts: one is the teacher evaluation and the second is the student evaluation. The teacher evaluation is divided into internal evaluation and external evaluation: internal evaluation mainly comes from other teachers' evaluation and internal evaluation generally comes from other teachers' observations in the teacher's classes, focusing on inquiry teaching results; External evaluation mainly depends on the evaluation of the superior administrative department. A teacher evaluation is more affected by the external evaluation. A survey of the status of some regional educational evaluation in Guizhou province shows that teachers' enthusiasm for inquiry teaching is not high after years of unchanging external evaluation, teachers think that their achievements will not be recognized whither or not they make efforts in inquiry teaching, so in the process of the teaching, they are perfunctory and more satisfied with the status quo. A school evaluation for students learning is often determined by their test scores and the schools do not pay attention to the evaluation for students' inquiry interest, creative spirit and values because there are no evaluation standards of uniform quantization. This situation is not beneficial to students' harmonious development. The so-called a unity of knowledge, feelings, and will that let us pay attention to knowledge, processes and methods, and values. In fact, there are clear inquiry teaching evaluation methods in the standards of every subject, such as the science curriculum standards mention that the inquiry teaching evaluation includes that students' understanding of scientific inquiry, putting forward questions, conjecture, hypothesis, planning and doing observational Experiments, collecting and organizing information, thinking and making conclusions, expression and communication, in which, every step has certain content, such as, a) students can choose good ways (language, text, charts, models) to represent their research processes and results; b) students can accept and respect different views and comments of other students; c) students can comment on research processes and results and exchange views with others (Ye, 2012). In the actual processes of inquiry teaching, the teaching evaluation are often not in accordance with the requirements of the curriculum standards, but just according to some teachers' teaching schedules or teaching habits, even the inquiry evaluation that is an important link in teaching classes, is ignored sometimes for faster completing established teaching objectives in a shorter time.

2. THE MISUNDERSTANDING OF INQUIRY TEACHING DUE TO CULTURAL CAUSES

Why do we explore and examine inquiry teaching from the cultural perspective? The premier goal of inquiry teaching is better to complete teaching tasks, but the fundamental goal of teaching is to inherit the culture, so we explore and examine inquiry teaching from the cultural perspective that is suitable and also is a useful extension based on the teaching. Inquiry teaching also is an existing style of the culture of teaching. John Dewey believed that the environment of human life, action and inquiry is not simply physical environment, but is a kind of cultural environment (Dewey, 1938). So it is necessary to explore inquiry teaching from culturology perspective.

2.1 Cultural Examination: A New Research Perspective

The new curriculum reform has achieved remarkable results, but also has some problems, such as there is some misunderstanding in inquiry teaching. Some scholars believe that some teachers' concepts have not been changed and some teachers have not adjusted their roles in the inquiry teaching; some teachers have misunderstanding of lecture-based teaching; some teachers excessively structuring inquiry teaching; teaching evaluation is disturbing inquiry teaching. I think we can consider the inquiry teaching from the cultural aspect. Mr. Xu Jicun argues that the boycott of the culture of teaching that often is the deep reason for the education reform being not effectively implemented (Xu & Che, 2007). Culture is people's living way. In the school education, the culture refers to the value orientation, thinking model and behavior model of teachers and students. Teaching is not only a cultural phenomenon and an organic part of the whole human culture, but also is a kind of cultural practice. It is necessary to understand teaching through a kind of cultural thinking (Giroux & Shannon, 1997). The report of "What Matter" pointed out: If there is no fundamental change in the school culture, teachers will not teach well and students will not learn well also. In one of America largest education reform movements, the Coalition of Essential Schools did not specify the ideal solutions which the schools should follow, but established the characteristics of the school culture as the guiding ideology to promote the school reform. These cultural characteristics emphasized that let the students carry on effective thinking, take inquiry as the core, set up personalized relations between teachers and students and make the democracy teaching practice etc.. (Fiske, 1991) Thus, we can see that the relation between culture and teaching is so close, it is necessary to examine teaching problems from the sociocultural perspective. If we examine inquiry teaching problems from a cultural perspective, it is a different scene. The core of culturology is the values, ways of thinking, behavior and habits. Different academic subjects have different value orientation. Science, humanities and mathematics have different value orientation, so their goals are different. The thinking models of different subjects are also completely different. The thinking model of science is to pay attention to abstract thinking. The thinking model of liberal arts focuses on image thinking. Inquiry teaching methods are different in different subjects and different cultural backgrounds.

2.2 The Life Context: A Useful Extension Based on the Classroom Teaching

The goal of inquiry teaching is to bring an awareness of inquiry in inquiry processes, let students generate inquiry thinking and learn to express inquiry results. In other words, inquiry teaching is not only a kind of teaching way, the more important is that teachers and students generate a stable inquiry thinking way through inquiry teaching and apply this kind of thinking model to the wider world of real life. John Dewey said that inquiry is one of the tools for solving practical problems. And in the inquiry processes, individuals grow and the community develops. Dewey put forward that the biggest gain from the inquiry is its function as a tool and inquiry nurture the democratic life (Johnston, 2009). That is to say, the true education is to make everyone sincerely blend himself to the whole human culture or the complete human culture. People's inquiry quality must form in the complete culture. In this way, through the pursuit of the cultural value, inquiry teaching is from a teaching model changing into a way of life that seeks the inquiry quality. Teachers can either view inquiry teaching as a teaching model or a way of life in their teaching practice, but their teaching performance is totally different; for the former, inquiry teaching is a kind of decorative embellishment of the classroom teaching, inquiry atmosphere has not been established and competition still exists in the class; for the latter, in the classroom, teachers pay more attention to the students' inquiry thinking and developing students' inquiry quality.

2.3 Inquiry Culture: An Existing Way of the Culture of Teaching

Culture is the way of human living. In the school education, culture refers to the teachers' and students'

value orientation, ways of thinking and behavior. Teaching is not only a cultural phenomenon and an organic part of the whole human culture, but also a cultural practice. It is necessary to understand teaching through a kind of cultural thinking (Giroux & Shannon, 1997). Inquiry culture is an existing way of the culture of teaching. The inquiry teaching itself is a kind of cultural existence, which is reflected in the classroom desks and chairs arrangement, teaching practice, the relations between teachers and students and so on. How to arrange desks and chairs in the classroom of carrying out inquiry teaching? There are the nursery shape, horseshoe shape, crescent shape, square, round and module type arrangements, which may depend on a local tradition or the teacher's ideas (Shi & Cui, 2001). In the classroom of carrying out inquiry teaching, some teachers may arrange desks and chairs according to a modularity arrangement in order to facilitate the discussion groups, some teachers may like circular arrangement, square arrangement and some teachers may not move desks and chairs, still keeping the previous arrangement, and let the students move them. These arrangements respectively reflect cultural concepts of the teachers. Dewey emphasized that inquiry teaching was "learning by doing", so he put particular emphasis on practice. Therefore, experiments or activities can be seen in classrooms in which teachers carry out inquiry teaching. This is also related to the inquiry teaching culture coming from science. A class of carrying out inquiry teaching is a democratic culture class. The relations between teachers and students are cooperation, harmony, friendship, democracy, and are not authority and obedience.

3. CONSTRUCT THE INQUIRY TEACHING CULTURE

Cultural research of inquiry teaching uses the theories and methods of culturology to study the phenomena and problems of inquiry teaching. The basic connotation of cultural research is to use culturology research methods to study inquiry teaching, describe living condition and the way of life of teachers and students, expound values, concepts, ways of thinking, behavior and habits of teachers and students and realize the transformation of inquiry teaching research paradigm. Some scholars believe that inquiry teaching only is a teaching method, which can be moved to different countries. In fact, a kind of inquiry teaching not only is to need a corresponding cultural ecology, but also has its own cultural ecology.

3.1 Some Teachers Need to Change Their Philosophy

A school culture that has a creative nature requires teachers to have the ability, willingness and opportunities to constantly think every aspect related to their teaching (Fullan & Hargreaves, 1996). Teachers are the main part of the education and a kind of teacher culture directly reflects the school culture. Bruner (1997) said that The teacher is not only a communicator but a model. John Dewey in "My Pedagogic Creed" wrote that a teacher was not simply a person engaging in training, but engaging in the formation of an appropriate social life, and the duty of a teacher specialized in maintaining normal social order and seeking a right social growth (Dewey, 2013). Therefore, teachers' cultural literacy is critical to the development of students. In the current process of the curriculum reform, there are some problems, for example, it needs in-depth inquiry teaching and there are a lot of misunderstanding in the process of implementing inquiry teaching. These problems have been related to the teachers' philosophy closely. A teacher's personal philosophy involves three aspects: first is the teacher's understanding of the world, namely the teacher's world outlook; second is the teacher's view on students; third is the teacher's view on the teaching. The teacher's world outlook refers to the teacher's positions, methods and points of view in his looking at objects and is the ideological essence of the teacher. A teacher's view of the world unconsciously affects the formation and development of his students' views of world. Teachers should take dialectical materialism as the guiding ideology and establish a world outlook and a cultural view which are comprehensive, sustainable, development views on problems. In the process of inquiry teaching, teachers should cultivate the student's spirit of inquiry and science, and treat students with democratic, equal manner. In the past, influenced by Ivan Kairov, we paid attention to the mastery of knowledge in the teaching process. With the development of science, technology, education and culture, a teacher's teaching purpose is not only to deliver the culture, but to deliver methods and means of learning the culture, in which, the teacher's personal philosophy view and culture view are particularly important.

3.2 Establish Democratic, Harmonious and Cultural Atmosphere

Inquiry teaching needs democratic, harmonious and cultural atmosphere. At the same time, democratic, harmonious and cultural atmosphere is conducive to inquiry. Dewey thought that implementing inquiry teaching was very necessary, because it was the main means of communication and making decisions and an efficient, democratic and public area can be maintained in this process. Inquiry teaching is the teachers and students interactive, multilateral activities. Teachers are not only to teach knowledge, but are the students' mentors and partners in inquiring. In the traditional relationships between teachers and students, teachers have the supreme status, and students are only receivers of knowledge, dare not say for fear of saying a wrong thing and are also afraid of teachers not only in classrooms, even after classes. The reason is not to establish a harmonious, democratic atmosphere and cultural exchanges. Therefore, it is necessary to establish a harmonious, democratic and cultural atmosphere in the exchange process of inquiry teaching. Only under such atmosphere, relationships between teachers and students can be really improved; only to create this atmosphere, teachers can strengthen communication with students and understand students in interactive exchanges. Teachers and students should strengthen cultural exchanges on the basis of mutual understanding, so as to complete the main teaching content in the interaction and communication, and get further feedback on inquiry teaching work.

3.3 Establish a Solid Community of Inquiry

Establishing an inquiry community is crucial for the implementation of inquiry teaching. An inquiry community is composed of students, teachers, experts and other related people. It is a teaching group that the people communicate, organize seminars, share academic information and relevant learning materials and together complete learning tasks inside and outside the classroom. A member of inquiry community should have a broad mind, tolerate other points of view, and be willing to share his ideas and viewpoints with others. He should be able to listen to criticism made by other members of the community, critically accept and seriously consider the criticism, and modify his ideas. An inquiry community is beneficial to strengthen cultural consciousness of teachers and students and develop cultural thoughts and cultural innovative spirit. Therefore, we must pay attention to the formation of a stable inquiry community for the implementation of inquiry teaching. An inquiry community needs all members focusing on their professional knowledge, establishing professional, stable, basic inquiry belief so as to promote the development of the inquiry community. We must pay attention to the formation of a stable inquiry community for the implementation of inquiry teaching. After the formation of a solid inquiry community, inquiry teaching will be better implemented.

3.4 Cultural Evaluation Methods for Inquiry Teaching

The focus of the traditional teaching evaluation is tests or examinations. This evaluation method is easy for quantification, but puts too much emphasis on scores. It is not conducive to the cultivation of students' innovation ability and students' growth. Through a cultural evaluation, we can evaluate inquiry teaching from the original teaching goal, thus we can improve inquiry teaching culture and guide inquiry teaching to go ahead towards a right direction. The cultural evaluation needs to review feeling and attitude objectives, cognitive objectives and process objectives, in which, the evaluation of feeling and attitude will review whether or not students' curiosity and motivation for exploring the unknown world are motivated. Richard Suchman believed that people had a natural curiosity tendency, and in the face of a strange phenomenon, this tendency urged people to try to find the reason of its occurrence (Jin, 2000). If students' curiosity has been motivated, the students are sure to actively think, rush to put forward questions, answer questions and enliven the class atmosphere that enhances the teaching quality. Inquiry teaching requires teachers and students to find out problems in the learning content and then put forward hypotheses, collect data, verify the hypotheses, and get the conclusions or reasonable explanations. These conclusions or reasonable explanations are the cognitive objectives. In the current inquiry teaching process, people pay more attention to the evaluation of cognitive objectives. The evaluation of process objectives is to review whether students actively participate in group activities in the inquiry teaching process, what roles they play in a group, whether they get the ability to make a hypothesis, a judgment and so on, whether they develop the spirit of inquiry and the critical spirit. The process evaluation is not one-time assessment and there may be a summary evaluation after a class, or a comprehensive evaluation at the end of a semester. It is important to synthesize feeling and attitude evaluation, process evaluation, objective evaluation, cognitive evaluation and so on and there is a comprehensive culture evaluation that will better mobilize the teachers and students for implementing inquiry teaching and benefit the inquiry teaching.

CONCLUSION

To solve the misunderstanding in practice of inquiry teaching, we can find the causes from the cultural aspect. Teaching is not only a cultural phenomenon, but also a cultural practice. We consider the teaching from the cultural aspect that can reveal the problems existing behind misunderstanding phenomena, so as to effectively solve the practical problems existing in the inquiry teaching. For promoting cultural reconstruction of inquiry teaching, we may need teachers to change their philosophy, create harmonious, democratic and cultural atmosphere, establish a stable community for inquiry teaching and carry out the cultural evaluation for inquiry teaching and so on. A teacher personal philosophy reflects the teacher's values, which guides the teacher's way of thinking, behavioral style and is related to the core of the culture. A harmonious, democratic and cultural atmosphere helps to promote inquiry behavior; sustained development of inquiry teaching needs to establish an inquiry community; through the cultural evaluation, we can promote comprehensive development of students in three directions including knowledge and skill direction, process and method direction, feeling, attitude and values direction.

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