# Strategy analysis of inquiry learning promoting children's autonomous game development

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Abstract: inquiry learning can enable children to form a good habit of active acceptance and independent exploration in the process of learning, use existing knowledge and experience to solve problems, and strengthen the construction and understanding of games and activities. Autonomous play is an important part of early childhood education and an important way for children to explore. It is of great significance to children's physical and mental development. This paper analyzes the exploratory learning in children's autonomous games, points out the common problems existing in children's teaching activities at this stage, and puts forward corresponding suggestions for improvement, hoping to promote the comprehensive improvement of children's ability.

Key words: early childhood education; Autonomous game; Activities; Inquiry learning

Inquiry learning requires children to have clear learning objectives and be able to independently analyze the information in the game, so that children can grow up in the autonomous game. In autonomous games, the main reason for children's shallow learning level is that they do not have the ability to explore independently, and they have relatively less learning experience, and the purpose of the game is not clear. Therefore, it is necessary for teachers to guide and help students, so that they can gradually develop the good habit of exploratory learning. Children are born with a high degree of curiosity about the world, and have a high degree of involvement in autonomous games. They are willing to listen, practice and think. Because of these characteristics of children, teachers need to give children guidance, pay attention to observation and recording, so that children can get a good game experience and better development.

#### 1 Problems in children's autonomous play

(1) The purpose of the game is not obvious

The clear goal of play is to deepen the common problem of children's autonomous play. Generally speaking, children of middle and low ages are exposed to more problems. Due to the lack of learning ability and experience, they know little about the game content. Due to the lack of thorough understanding of autonomous games, children are blind in the game and do not think about what they want to do? When the teacher asked, "what are you going to do?", The child cannot answer. The results showed that the value of autonomous Games was ignored, the duration of attention was short, the interest in activities was low, distraction affected the development of attention and thinking, and could not create a new learning experience.

(2) Activity materials are not rich

To enable children to carry out inquiry learning in autonomous games, we must design interesting autonomous game activities, so that children can go deep into the game activities to think and explore. The purpose of autonomous game design and implementation is to enable children to fully participate in the game and improve their comprehensive ability in the game. Therefore, if preschool teachers fail to successfully introduce children into the game situation, the subjectivity of children in the game will disappear. Game materials are the basis of inquiry, and also an important guarantee for children's psychological development and knowledge construction. The preparation of game materials should be based on the exploration needs of children, rather than the teaching experience of teachers. In the current children's autonomous game area, the types of game materials are not rich enough and the levels are not obvious enough. The exploration needs of children of different ages are often unable to be met. The lack of game materials directly leads to children's inability to think and create in the game, and their interest in activities decreases, which is difficult to meet the needs of deep learning. Teachers should adjust strategies in time to improve the quality of game activities.

(3) Poor problem solving ability

Exploratory learning is to let children solve problems through independent discovery and exploration in autonomous games. This process is also a process for children to gradually enrich experience and accumulate knowledge. Many children have been pampered by their parents and teachers for a long time, and their ability to explore and learn independently is relatively poor. They want to give up when they encounter problems and want parents and teachers to help. For example, when playing the splicing game, many children will directly give up the game because of the difficulty of splicing and the incompatibility of templates, and turn their attention to new things, which is not conducive to the development of children's concentration and thinking ability. In the process of playing games, some children do not fully use game materials, which also shows that children's ability to think and solve problems is relatively weak, which has a certain impact on deep learning.

#### 2 Strategies of inquiry learning to promote children's autonomous game development

(1) Observe children's play behavior and understand how children explore problems

Children have their own ideas in the process of independent play, and they should be given timely help and guidance according to their needs. Therefore, teachers should pay attention to observing children's performance in the process of playing, and analyze children's

cognition, emotion, interpersonal communication, language expression, etc.

For example, in an outdoor autonomous game, the game area was exposed to direct sunlight without any protective measures. The teacher suggested that children choose a shady and cool game area, but the children's enthusiasm for playing was not reduced because of the scorching sun. At this time, Duoduo and other small partners are discussing the construction of a pavilion and a sunshade. Duoduo and other children started to build the pavilion, but after a long time, Duoduo and the children had not finished building the pavilion, so they asked the teacher for help and asked the teacher to show them the photos of the pavilion.

The teacher and the children looked at the pictures of the pavilion together. The teacher helped the children analyze the structure of the pavilion. Under the guidance of the teacher, the children built the preliminary structure of the pavilion. During the discussion of the game, some children raised the question: "decoration" need to be added? According to the learning needs of children, teachers will guide which materials to use for decoration. In the process of children's autonomous play, teachers do not interfere with the children's activities, but pay special attention to the children's situation and help them when necessary.

For example, the sand field is one of the favorite playgrounds for children. It provides children with a world where they can freely use their imagination. Often they can't wait to bring sand playing equipment to the battlefield to play games. When children are playing in the sand, they want to build bunkers, dig tunnels, carry sand and look for treasures. Teachers can observe children's behavior and ask questions in time, such as "why did you do that?" and "what are the reasons for doing that?" Wait. Teachers use flexible examples to help children develop good logical thinking ability, so that they can clearly analyze the changes before and after things, the similarities and differences between things, and then enable them to obtain new game experience in their own games, which is of great significance for children's development of experience transfer ability and problem analysis ability. In the game, teachers can guide children to communicate and interact, let them share their knowledge and experience, and then promote children's development of inquiry learning ability. When organizing children to play autonomously, teachers should fully analyze children's existing development level and cognitive ability, carry out games based on children's existing experience and knowledge, let them use existing knowledge and experience to explore new knowledge, develop new exploration and learning ability, and then strengthen children's learning self-confidence.

(2) Gradually guide children to analyze and cultivate their logical thinking ability

Games are very important for the development of children's logical thinking. In many games, children are often unable to explore the results by themselves. Teachers need constant guidance and reminders to help children accumulate experience and find solutions to problems.

On the playground, Lele and Dongdong tried to swing with a long wooden board and a conical stepping stone, but as soon as they sat on it, the long wooden board slipped down. So Dongdong found a milk powder can, put it in the middle of the long board, and started a swing. As a result, the board fell off, and the two fell on the grass again. They tried again and again with milk powder cans, but they always failed. They sat on the grass in frustration. At this time, the teacher came over and interacted with the children.

Teacher: Why did your seesaw fall off?Why?

Dongdong: because the milk powder can roll.

Teacher: you stepped on the stone. Did it roll?Why does the seesaw fall off when a stepping stone is used to make a swing?

Lele: the stepping stone won't roll. What's its function?

(of course, the children have not yet found the real reason why the swing made of stepping on the stone board fell down.) therefore, the teacher guided the children to analyze the difference between the foot rest and the milk powder can, and finally guided the children to try to sit on the seesaw bracket with the Anma shelf. Finally, the children successfully made a seesaw.

Teacher: Why did the swing made of stepping stones fall off?

Lele: it may be that the stepping stone is too sharp and too short, and it has been damaged.

Teacher: why can the pommel horse stand be a swing?

Lele: the pommel horse rack is relatively high, with cushions, and the wooden board will not slide down when tilted.

Dongdong: the pommel horse rack is rectangular. We put it horizontally. It is not easy for the board to slide down. The milk powder jar is too small and round, and the board is easy to roll down when playing.

In this game activity, when the children are about to give up, the teacher guides the children to observe and analyze the materials used to make the seesaw. Finally, under the guidance and Inspiration of the teacher, the children finally analyzed the reason why the seesaw was easy to slip, so that the children could deepen their understanding of the game materials and the game itself, which would help them develop critical thinking and analytical ability.

(3) Summarize and reflect, deepen children's ability of reflection and summary

Reflection and summary can deepen children's understanding of the game, let children "understand" and "rethink" the problems in the game, let children cultivate critical thinking through questioning and exploration, and expand their thinking depth. There are several ways to reflect and summarize the sharing and communication after children finish the game: first, evaluate the experience of the whole action process, such as "is the game interesting at this moment?"; Second, reflect and summarize the different situations in the game, such as "what do you think of the solution you chose?"; Third, guide children to review the movement process and summarize, such as "what is my view?" "What's my problem?".

When building a football field, children often knock down the fence built next to them, which is also the reason for the quarrel between the two groups of children, so the teachers put forward some questions to stimulate their thinking.

Teacher: what do you think of the original method?

Pan Pan: my hands always touch the fence. When it was built, it was pushed down.

Zhuangzhuang: let's draw a line on the floor with chalk. When building a football field, our hands can't cross this line. Teacher: what do you think of this method?

Qingqing: but when you build a football field, you will forget this line and pull down the fence.

Teacher: is there any other way to continue to build a football field without knocking down the built fence?

Tiantian: we can fix the fence.

Teacher: what do you think of this idea?Do you want to try?

In the above case, the teacher asked the children what they thought of the solution: "what do you think of this method?" In this process, children found the loopholes in the original plan and developed critical thinking. When the teacher asks questions, the children actively discuss, participate in the transmission of life experience, and put forward the idea of "fixed fence", so that they can think about more ways to solve problems and improve the depth of thinking.

(4) Set aside space for independent exploration and provide children with space for independent exploration

There are many dolls in the game corner. The children want to make a storage box for the dolls. They found some cardboard and acted quickly to turn their needs and ideas into reality. In the process of assembling, children encountered a difficult problem: what materials are used to paste cardboard?Why did the tape fall off after it was stuck?Which method is used to fix the tape most tightly?The child consulted an experienced teacher and knew that after pasting the tape, he should first press it gently to make the tape stick firmly. Children actively solve problems, think about the problems, and gradually revise the problems. When facing difficulties in the game, teachers should provide children with time and space for independent thinking, so that they can explore freely and use their imagination to solve problems. In the process of thinking and solving problems repeatedly, children can strengthen the ability of independent exploration and action. Teachers mainly play the role of guidance and help in the whole process, providing support for children and deepening their learning. In this game, pasting cardboard is an innovative journey with exploratory significance for children. After providing children with sufficient materials and appropriate tools, teachers can find that children can turn such ideas into reality on their own.

Children's games are inseparable from the scene, which is very important for children's game experience and their learning and exploration in the game. In a friendly game situation, children get a more authentic feeling, and the whole learning and exploration activities are more novel and interesting. The layout of game scenes should follow the principles of authenticity, vividness and interest, and conform to children's cognitive laws and explorations, so as to ensure children's engagement in autonomous games and guide children to carry out exploratory learning in autonomous games. In addition to arranging game scenes, teachers should also provide children with rich game materials and props, introduce the functions and properties of props to the reality of children, guide children to be familiar with game materials by watching, touching and smelling, and then flexibly apply materials in the process of games. For the content of education, teachers should carry out reasonable screening, game activities should be effectively integrated into knowledge, and certain links should be established between old and new knowledge, so that children can mobilize existing knowledge and experience to explore new knowledge in their own games, so that children can establish a complete knowledge system and form good inquiry learning ability.

#### epilogue

Play activities are the basic way for children to explore, practice and express themselves, and children's autonomous play is an important way for children to explore and think. In autonomous games, children gain superficial life experience and gradually develop the ability to think and solve problems. How to enable children to carry out efficient inquiry learning in autonomous games, so that children can learn easily and naturally in a happy mood and experience the joy of success is an important topic for preschool teachers to think about. Recognize the importance of children's autonomous games, optimize the organization and implementation methods of children's autonomous games, provide a good foundation for the development of children's intelligence, physical strength and social communication ability, and promote the healthy growth of children.

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### Thoughts on the Construction of Economics Major in Colleges and Universities in the Era of Digital Intelligence

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**Abstract:** Under the background of digital intelligence, the construction of economics major in colleges and universities should be further optimized. Teachers should actively introduce new construction concepts and teaching methods, so as to better arouse students' interest, strengthen their understanding and application level of economics professional knowledge, and improve the teaching effect. As a popular teaching aid, Internet technology can greatly enrich the content of the construction of economics major in colleges and universities, broaden the path of education, and help college students achieve more perfect development. In view of this, this paper will analyze the construction of economics major in colleges and universities in the era of digital intelligence, and put forward some strategies for your reference.

Key words: Digital intelligence; Economics major in colleges and universities; Construction thoughts

## **1.**Analysis on the background of the construction of economics major in colleges and universities in the digital intelligence era

#### 1.1 The State advocates informatization reform

In the document  $\langle$  Guidance on promoting the development of "Internet + Education"  $\rangle$ , the Chinese government further deepened and refined the importance of informatization teaching, and pointed out the way forward for the follow-up informatization education reform. In addition, with the continuous improvement of the digital network teaching platforms, it has also laid a solid and profound foundation for the optimization of the construction of economics major in colleges and universities under the background of digital intelligence.

#### 1.2 Powerful digital campus construction

At present, colleges and universities at all levels in China have carried out the construction of digital and intelligent campus, and achieved preliminary results. In teaching, high-quality network environment and hardware can provide strong support for teachers to carry out professional construction, which is also an important part of enhancing the confidence of education reform.

#### **1.3 Improvement of online teaching level**

In the past two years, our colleges and universities have widely used superstar Fanya, lanmoyun and other platforms to carry out education and teaching, and have created a considerable number of high-quality online courses, which provides a very rare opportunity for the follow-up construction of information technology specialty and further enhances the feasibility level of specialty reform.

### 2. The significance of the construction of economics major in colleges and universities in the digital intelligence era

#### 2.1 Help to enhance the appeal of the course

In the context of digital intelligence, by carrying out the construction of economics major in colleges and universities, we can more effectively introduce Internet resources into the classroom of economics major, so as to effectively enrich professional education resources, which is of great significance to improve the teaching effect. In addition, building a more intelligent specialty can also effectively enhance the appeal of economics professional knowledge to college students, making them more active and actively participate in the exploration and learning of professional knowledge. At the same time, the introduction of Internet technology into the classroom of economics major in

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