

Research on Creative Expression and Thinking Expansion in Weather Recording Activities of Middle School Children

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Abstract: The Guide to Learning and Development for 3-6-year-old Children points out: "Children gain experience in scientific exploration of natural things and use it in new learning activities to form lifelong learning methods and abilities." Weather is something that children can observe every day. In the exploration of weather, children's observation ability, language expression ability and thinking ability can be exercised and developed. This paper discusses the creative expression and thinking expansion of middle school children's weather recording activities by using the methods of literature study and case analysis, and puts forward several specific practical strategies.

Keywords: children in middle class; weather records; creative expression; thinking expansion; educational method

The Guiding Outline of Kindergarten Education points out that "to create a positive and supportive environment suitable for children's development according to local conditions, teachers should regard the surrounding natural environment and social environment as important resources for children's development according to children's hobbies and development level [1]." By studying the concepts of "people-oriented" and "lifelong education" in the Outline, we explore weather recording activities that are beneficial to children's development.

Early childhood education is a multi-dimensional training process, which is not only related to the imparting of knowledge, but also attaches more importance to the cultivation of ability and the development of personality. In this process, weather recording activities play a unique and important role. It not only helps children to establish a basic understanding of nature, but also stimulates children's curiosity and desire to explore the world around them by observing, recording and discussing weather changes.

The importance of weather recording activities lies in that it provides a practical learning platform closely

related to daily life. Children begin to understand the diversity and variability of weather phenomena by observing the color of the sky, the shape of clouds, the intensity of wind and the pattern of rain. This observation activity can cultivate children's observation, attention and memory, which is the basis of their cognitive development. The following mainly focuses on the creative expression and thinking expansion in the weather recording activities of the middle class kindergarten.

1 An Analysis of the Necessity of Carrying Out Weather Recording Activities and Carrying Out Creative Expression And Thinking Development Training for Middle School Children

In the practice of children's weather recording activities, studies have shown that such activities can effectively promote children's cognition and understanding of natural phenomena. For example, by observing the changes of clouds, recording the rise and fall of temperature and feeling the strength of wind, children can gradually establish a basic understanding of weather patterns. This cognition not only enhances children's sensitivity to the environment, but also

improves their language expression ability and social skills through communication with peers and adults [2].

On the theoretical level, weather recording activities are consistent with many educational theories. For example, Piaget's cognitive development theory emphasizes the process that children construct knowledge through interaction with the environment. Weather recording activity is the practical embodiment of this theory, which encourages children to explore and learn through personal experience. Vygotsky's social and cultural theory also points out that learning takes place in social interaction, and children can acquire new knowledge and develop advanced psychological functions in the process of participating in weather records with peers and adults.

The role of creative expression and thinking expansion in children's development can not be underestimated. Creative expression, such as painting, story creation and role-playing, is a unique way for children to understand and express the world. It can not only promote the development of language ability, but also stimulate children's imagination and creativity. Through creative expression, children can transform their inner thoughts and feelings into concrete forms, which helps them to better understand themselves and the outside world. The role of creative expression in children's development has also been widely supported by research. Creative expression is not only an art form, but also a thinking process. It allows young children to explore and express their ideas freely, not limited by traditional thinking. Research shows that creative expression can promote children's imagination, creativity and self-expression ability, which are important components of children's personality development [3].

Thinking expansion involves a higher level of cognitive ability, such as the ability to classify, compare, reason and solve problems. In weather recording activities, children need to analyze and summarize the observed phenomena, which helps them develop logical thinking and critical thinking. For example, children may think about why sunny days and rainy days feel different,

or why rainbows appear under certain weather conditions. These thinking activities can not only improve children's cognitive ability, but also help them establish problem-solving strategies. The theory of thinking development focuses on how children develop their thinking ability through various cognitive activities. For example, Bruner's spiral curriculum theory advocates teaching new concepts by repeating and gradually increasing complexity, which helps children gradually establish an understanding of complex concepts. In weather recording activities, children can gradually deepen their understanding of weather phenomena through constant observation, recording and discussion, thus developing their ability of analysis, synthesis and evaluation.

2 Design and Implementation of Creative Expression and Thinking Expansion Scheme in Weather Recording Activities for Children in Middle Class

Early childhood is a critical period for the development of language and thinking. As a bridge between natural phenomena and children's cognition, weather recording activities are of great significance for promoting children's all-round development.

2.1 Activity Target Design

This activity aims to achieve the following goals: to enable children to know different types of weather; Cultivate children's ability to observe and record weather conditions; Guide children to use simple tools to assist in recording; Develop children's ability to make simple weather forecasts; Promote children's creative expression and thinking development.

2.2 Activity Preparation

In order to ensure the smooth progress of the activity, we have prepared the following teaching materials: basic teaching tools such as whiteboard and pen; Make weather icons, print or draw cards with different weather images; Prepare weather record cards, using newspapers or cardboard; Observe in the activity room or outdoor

natural environment;

2.3 Activity Process

2.3.1 Pre-class Investigation and Creative Inspiration

Through the interaction between parents and children, we not only collected children's curious questions about the weather, but also reflected children's pure curiosity and desire to explore nature, and provided them with a platform to express their ideas freely. On this platform, children can share their observations, feelings and imaginations about weather phenomena without restriction. This interaction not only deepens parents' understanding of children's thinking process, but also provides a safe environment for children to dare to ask questions and express, thus cultivating their self-confidence and creativity. These problems become the starting point of our teaching, they are the reflection of children's inner world, and they are the clues for us to guide them to explore further. We use these questions as sparks to stimulate children's curiosity and creative thinking, and encourage them to go beyond superficial phenomena and think deeply about the scientific principles and natural laws behind the weather. In this process, children learn how to ask questions, how to find answers, and how to communicate with others and share their findings [4].

2.3.2 Introduction and Preliminary Understanding

Show pictures to guide children to have a preliminary understanding of the weather. In this process, we encourage children to describe the weather in their own way, such as painting or making up stories, so as to cultivate their creative expression ability.



Active Import Picture

2.3.3 Actual Observation and Record

Under the guidance of the teacher, the children experience the weather personally and use the weather record card to observe and record. This link not only deepens children's real feelings about the weather, but also exercises their observation and recording ability [5]. We encourage children to add their own illustrations or notes to the record cards to expand their creative expression.

Recording activity is a combination of hands and brains, which can promote children to think seriously, help them to construct their own knowledge and experience, and also stimulate children to form a scientific attitude of respecting evidence on the basis of accumulating perceptual experience, and develop a good habit of collecting and processing information. At the same time, in order to support children to carry out activities about the weather, we have created an environment suitable for exploring the weather. "I know the weather" and "temperature line chart", as well as papers, pens, desk calendars, thermometers and other related tools and materials, the "dialogue" between teachers and children has also become an internal "soft" environmental record.

In order to enhance children's weather record and creative expression, children will record what happened in the morning, what they saw on the road, their own guesses, the way they came to the garden, and so on, from observing the weather to discovering themselves and then paying attention to the things around them. The scope of children's observation is getting wider and wider, and the content of observation is getting more and more detailed. Children's observation and cognition of things are gradually combined with themselves from their characteristics, which reflects the progress of their observation and cognition ability. In the process of exploring and observing natural things, it also improves the comprehensive activity ability of the senses.

2.3.4 Weather Analysis and Thinking Development

On the basis of records, guide children to sort out

and analyze the weather, compare the characteristics of different weather and summarize the laws of weather changes. This process helps children develop thinking skills such as classification, comparison and reasoning. For example, according to the development law of children's thinking, we have integrated the preliminary statistical knowledge-line chart. The children first read the degree from the thermometer, and then find the corresponding points on the line chart according to the degree, mark them and connect them, so that they can observe the trend of the line chart in a month and understand the changing trend of the temperature this month. At the same time, an intuitive line chart can arouse children's thinking, and the "silent dialogue" between teachers and children can let children discover and explore independently.

2.3.5 Weather Forecast and Creative Practice

Teachers play CCTV weather forecast related videos to children and encourage them to simulate the weather forecast, which not only cultivates children's observation and forecasting ability, but also provides a stage to show their creativity. According to children's cognitive level, thinking and language ability development needs, teachers create "doll weather station" activities for children. The teacher prepares three weather dolls for children, representing sunny days, cloudy days and rainy days, and prepares a big pocket and a "TV set" made of paper boxes from Monday to Friday. Children first learn from TV how to be a weather forecast host, what to say and how to say it. Then every morning, several children take turns to be hosts in front of the "TV", broadcast the weather forecast, and choose the corresponding weather doll to put in the pocket of the day of the week. After the special activities, the children will discuss and evaluate the qualified host. In this activity, children can use cameras, tape recorders and other tools to collect information and make personalized weather forecasts. In the activity of "Doll Weather Station", children take turns to act as weather forecast hosts, which not only exercises their language expression ability, but also stimulates their creative thinking.

3 Teaching Experience and Enlightenment of Creative Expression and Thinking Expansion in Weather Recording Activities for Middle School Children

3.1 Weather Recording Activities Contribute to Children's Creative Expression and Thinking Development

Early childhood is an extremely critical stage in individual development, and the development of language and thinking ability in this period has a far-reaching impact on children's lifelong learning and growth. At this stage, children are full of curiosity about the world, and they are eager to explore and understand the surrounding environment. As an educational means, weather recording activities can not only satisfy children's curiosity, but also effectively promote the development of their language and thinking ability.

By letting children observe, record and discuss weather changes, weather recording activities concretize abstract natural phenomena and make them objects that children can directly perceive and describe. This kind of activity can help children to establish a basic understanding of the laws of nature, and also exercise their observation and attention. In the process of recording the weather, children need to use language to describe their observed phenomena, such as "It rained today" and "There is a rainbow in the sky", which not only exercises their language expression ability, but also promotes their understanding of the language [6].

In addition, weather recording activities can also stimulate children's imagination and creativity. When describing the weather, children may use metaphors, personification and other rhetorical devices, such as "the sun smiles brightly" or "dark clouds cover the eyes of the moon". These creative expressions not only enrich children's language, but also expand their thinking. Through such activities, children learn how to express their thoughts and feelings creatively with language.

3.2 Give Children more Freedom and Let Them Express themselves Creatively

The contents of the evaluation include the use of materials, the creation of environment, and the interaction of children. In children's weather recording activities, we should grasp the characteristics of children's interest in all kinds of weather and satisfy their interest in observation, imitation and creative expression. Without too many restrictions, give children great autonomy, let them boldly use various tools and methods to observe and record the weather, and choose their own companions, so as to provide children with an open, changing environment with various opportunities for exploration and discovery [7].

3.3 Timely Intervention, Communication and Guidance

In weather recording activities, give appropriate help according to the different needs of children. For example, when a child wants to record something but can't write it, the teacher can let the child express it orally and then help the child record it. When the weather line chart made by children themselves is not standardized and beautiful, teachers should not rush to deny children's behavior, but guide children to communicate and discuss in time, seek solutions to problems and try to make it again. In addition, in the process of observing and recording the weather, teachers can guide children to expand their thinking through appropriate words, questions and situations. For example, in cloudy weather, guide children to observe clouds, let them describe the shape of clouds, and what they think of when they see clouds. In rainstorm weather, guide children to think about the role of rain on plants. Through these guidance and communication, children's

thinking will be expanded step by step, and children's various abilities will be promoted.

4 Conclusion

The weather is something that children can observe every day in their lives. In the exploration of the weather, children walk into the wonderful meteorological world, pay more attention to the relationship between the weather and home life, learn to record with pictures, charts or other symbols, and share with others, thus exercising their observation ability and language expression ability. Preschool teachers should correctly understand the role of weather recording activities in children's growth, scientifically design and reasonably organize rich and interesting weather recording activities according to children's cognitive level, growth law and development needs, and do a good job of communication, inspiration, guidance and evaluation in the activities, so that children can get more gains in the activities and effectively cultivate and exercise their expression ability and thinking ability.

In addition, when organizing weather recording activities, teachers should also pay attention to the following points: First, make relevant teaching preparations before class; Second, the safety of children should be put in the first place, and attention should be paid to safety when putting it into practice; Third, pay attention to children's feedback during activities and keep abreast of children's situation; Fourth, the attitude is friendly, the tone is gentle, and children should be willing to participate in activities, so as to obtain better results.

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