

Investigation and Research on the Current Situation of Kindergarten Ecological Education Curriculum Development

Xiangxiang Wu, Xiao Wei

School of Education Science, Liupanshui Normal University, Liupanshui, China

Abstract: *In 2020, the sudden outbreak of the novel coronavirus pneumonia has affected people's lives all over the world. It has deeply reminded us of the importance of harmonious coexistence between human beings and nature. The Chinese government attaches great importance to ecological education in early childhood and cultivates children from an early age. The ecological awareness and ecological quality of China will lay a solid foundation for my country to implement the sustainable development strategy and build a socialist harmonious society. Through literature analysis, the research has learned about the current situation of ecological education curriculum in my country. Through interviews and distribution of 90 questionnaires, we have learned that the objectives of the ecological education curriculum for children are not clear and the contents are not related. In view of the problems existing in the kindergarten ecological education curriculum, the following suggestions are put forward: first, change the idea of running a kindergarten and strengthen the construction of teachers; second, enhance the comprehensiveness of curriculum objectives; third, enhance the connection of curriculum content; fourth, enhance curriculum implementation Diversity and openness.*

Keywords: *Early Childhood Ecological Education; Preschool Education; Current Situation Survey*

1. Questions raised

The child is a "whole" individual, which exists in human beings and has two properties. First, a child is a "natural person", which requires kindergarten education to promote the healthy development of children's physical and mental health. Second, a child is still a "person", so the development of a child's personality cannot be ignored. How to ensure that kindergarten education is effective and promote the development of children's sexuality so that children can better adapt to it, this must use the ecological point of view, ecology is a connection, development, dynamic, open and balanced point of view, which gives preschool education There are many revelations that the ideal education in today's kindergartens should be education that is taken from and used for. Therefore, kindergarten ecological education should not be a kind of "closed door" education that ignores the laws of children's physical and mental development and ignores and links. Fully consider the naturalness and personality of young children in order to better promote the growth of young children.

The research on the connotation of ecological education abroad mainly focuses on the cultivation of human personality. Russian scholars define ecological education as a continuous process of educating, cultivating and developing people, pointing out the direction for teaching, providing standards for teaching goals and extracurricular activities, and ensuring people's sense of responsibility for the surrounding environment [1]. This educational model also puts forward new requirements for educators. It believes that educators should mainly formulate learning programs for educated students in the form of experimental or empirical research, and its coverage has gone beyond conventional knowledge and skills.

In the related research on ecological education in China, only a few scholars have carried out research on ecological education for early childhood. Du Changjian pointed out that my country's current ecological education mechanism has not yet formed a system. Zhou Xiaoyang and others further pointed out the problems of ecological education in my country's higher education, such as low ecological literacy, lack of attention at the school level, lack of diversity in content, and unreasonable methods and methods.

Therefore, this study attempts to explore the feasibility of the operation of the kindergarten ecological education curriculum, and analyze the possible implementation ways of the kindergarten

ecological education curriculum. Promote the harmonious development of young children in the process of benign interaction between people and the ecological environment, and cause the society to pay attention to the kindergarten ecological education curriculum. In addition, this study also attempts to discuss the problems existing in the implementation of ecological education courses, and propose suggestions and strategies.

2. Research methods

The research selected three public kindergarten teachers in L city as the research objects, and used the self-made questionnaire "Kindergarten Ecological Education Curriculum Questionnaire" to investigate 90 teachers in the three kindergartens, and recovered 82 effective questionnaires, with an effective rate of 91.11%. The questionnaire mainly includes the basic information of kindergarten teachers, the status quo of ecological education curriculum awareness, and the necessity of ecological education curriculum development, covering 6 dimensions (educational ecological education curriculum awareness, professional ability, textbook resource activities, and ecological education curriculum value). , ecological education content function and approach, ecological education encountered difficulties), a total of 24 items; after data recovery, SPSS22.0 software was used for statistical analysis of the data.

3. Analysis of results

3.1 General situation of teachers

Table 1: Basic Information

essential information	class	frequency	percentage
nation	the Han nationality	45	54%.88
	Other ethnic minorities	34	41.46%
	Foreign personnel	3	3.66%
Working hours for preschool teachers	1-5 Years	44	53.66%
	6-10 Years	13	15.85%
	11-15 Years	14	17.07%
	More than 15 years	11	13.42%
The current class	the bottom class in a kindergarten	24	29.27%
	the middle class in a kindergarten	23	28%.05
	the top class in a kindergarten	25	30.49%
	other	10	12.19%
Current degree	Junior high school and below	2	2.44%
	Technical secondary school or high school	5	6.10%
	junior college education	19	23.17%
	undergraduate course	53	64.63%
	Master's degree or above	3	3.66%
Current title	a senior teacher	7	8.54%
	First-level teacher	16	19.51%
	Second-level teachers	17	20.73%
	Third-level teachers	10	12.20%
	other	32	39%.02

According to Table 1, it can be seen that the number of Han teachers engaged in early childhood education is larger than that of teachers from other ethnic groups; from the perspective of working hours of preschool teachers, the number of teachers who have worked within five years is larger; from the perspective of teacher education, the number of teachers engaged in preschool teachers Most of the industry graduates are undergraduates, which shows that the professional quality of the teaching team has improved significantly; from the perspective of professional titles, most of them are unrated and second-level teachers, which is related to the teaching age of the teachers surveyed.

3.2 Kindergarten Ecological Education Curriculum Content and Approaches

Table 2: Curriculum content and approach of early childhood ecological education

Ecological education	project	frequency	percentage
content	Environmental pollution (air, water, etc.)	59	71.95%
	Protect and save water resources	62	75.61%
	Protect the air	48	58.54%
	Animal and plant knowledge	53	64.63%
	Love animals and plants	64	78.05%
	Protect the castle peak	35	42.68%
	Protect the ocean	33	40.24%
	forest protection	32	39.02%
	Protect the soil	26	31.71%
	Reasonable development of mineral deposits	11	13.41%
	Reduce noise	28	34.15%
	Garbage recycling and classification	57	69.51%
	No disposable tableware is used	25	30.49%
	Ecological and environmental protection policies, laws and regulations knowledge	16	19.51%
other	3	3.66%	
road	Classroom teaching activities	58	70.73%
	ludic activity	43	52.44%
	Daily life penetration	71	86.59%
	Area corner activities	46	56.10%
	Outdoor observation	51	62.20%
	practical activity	39	47.56%
	other	4	4.88%

According to Table 2, it can be seen from the statistics of the survey data on the content of ecological education in kindergartens that at present, the ecological education carried out by preschool teachers mainly focuses on caring for animals and plants, environmental pollution, protection and conservation of water resources, air protection, animal and plant knowledge and protection, The protection of the ocean, garbage recycling and classification, etc., among which the protection of animals and plants, the protection and conservation of water resources, and environmental pollution are the most frequently involved. The statistics of the survey data on the content and ways of ecological education in kindergartens show that at present, preschool teachers usually carry out ecological education for children mainly through daily infiltration, classroom teaching activities and outdoor observation.

3.3 The current situation of kindergarten ecological education curriculum

Table 3: Frequency analysis of fields of ecological education curriculum

		N	percentage
Areas involved in the development of ecological education curriculum	Health field	69	21.10%
	Language field	62	19.00%
	Social field	67	20.50%
	the domain of science	74	22.60%
	realm of art	55	16.80%

According to Table 3, it can be seen that among the respondents, the number of people in the field of science is the largest, and the number of people in the field of art is the least. This shows that, on the one hand, the current teaching of ecological education by preschool teachers is mainly limited to the field of "science", followed by "health and society", and few teachers choose to include the content and goals of ecological education in the fields of "language" and "art" On the other hand, when preschool teachers choose the goals and contents of ecological education, they are highly subjective and arbitrary.

3.4 Difficulties encountered in carrying out ecological education courses.

Table 4: Difficulties in carrying out ecological education courses

	difficulty	N	percentage
Difficulties encountered in developing the ecological education curriculum	There is no textbook to refer to	28	10.10%
	The kindergarten space is small and inconvenient to carry out	66	23.80%
	Kindergartens are lack of natural resources	66	23.80%
	Parents support or not	50	18.10%
	Teachers themselves lack the ability to conduct the course	60	21.70%
	other	7	2.50%

According to Table 4, it can be seen that among the respondents, the kindergartens have the largest number of small space, inconvenient development, and the lack of natural resources, and the other people are the least.

3.5 Differences in teaching age, educational background and professional title

Table 5: Difference analysis of attitudes and behaviors of ecological education courses among working years

Attitude and behavior	working life	N	M±SD	F	P	LSD
Understanding of ecological education courses	① 1-5 years	44	3.070±0.789	10.654	0.000	①>③>②>④
	② 6-10 years	13	2.310±0.630			
	③ Year 11-15 years	14	2.640±0.497			
	④ for over 15 years	11	1.820±0.751			
The Necessity of courses related to ecological education	① 1-5 years	44	3.320±0.740	0.219	0.883	
	② 6-10 years	13	3.380±0.870			
	③ Year 11-15 years	14	3.360±0.929			
	④ for over 15 years	11	3.550±1.036			
Have the relevant professional ability of ecological education courses	① 1-5 years	44	1.840±0.568	3.957	0.011	②>①>③>④
	② 6-10 years	13	1.920±0.494			
	③ Year 11-15 years	14	1.790±0.426			
	④ for over 15 years	11	1.270±0.467			
Participate in the ecological education course discussion activities	① 1-5 years	44	1.730±0.451	3.689	0.015	①>②>③>④
	② 6-10 years	13	1.460±0.519			
	③ Year 11-15 years	14	1.430±0.514			
	④ for over 15 years	11	1.270±0.473			
Have carried out ecological education curriculum activities	① 1-5 years	44	1.910±0.473	4.297	0.007	④>②>①>③
	② 6-10 years	13	1.920±0.494			
	③ Year 11-15 years	14	1.790±0.426			
	④ for over 15 years	11	2.450±0.688			

Note: p≤0.05, the confidence interval is 95%; p≤0.01, the confidence interval is 99%, the same below.

According to Table 5, it can be seen that through the investigation and analysis of kindergarten teachers of different teaching ages, from the perspective of the average value of understanding ecological education courses, whether they have the professional ability of ecological education courses, and whether they have participated in ecological education course seminars, preschool teachers with young teaching age Preschool teachers who understand ecological education courses, whether they have the professional ability of ecological education courses, and whether to participate in ecological education course seminars are higher than those with older teaching years. Therefore, from the perspective of the three aspects of the teaching age of kindergarten teachers, the score of more than 15 years is lower than that of 1-5 years, 6-10 years, and 11-15 years. The main reason is that with the development of preschool, the threshold for kindergarten teachers is also The number of preschool teachers receiving higher education has increased, and they have received a wide range of theoretical knowledge. From the analysis of the survey data of kindergarten teachers who have carried out ecological education curriculum activities in kindergartens, it can be seen that the average value of more than 15 years is significantly larger than that of 1-5 years, 6-10 years, and 11-15 years. The main reason is that teachers with long teaching experience have rich educational experience and long tenure, so they carry out more ecological education activities.

Table 6: Difference analysis of attitudes and behaviors of ecological education courses among academic qualifications

Attitude and behavior	record of formal schooling	N	M±SD	F	P	LSD
Understanding of ecological education courses	① junior high school and below	2	3.000±0.000	0.317	0.866	
	② technical secondary school or high school	5	3.000±0.000			
	③ junior college education	19	2.580±0.507			
	④ undergraduate course	53	2.720±0.988			
	Master of ⑤ and above	3	2.670±0.577			
The Necessity of courses related to ecological education	① junior high school and below	2	3.000±0.000	4.213	0.004	③>④> ①>②>⑤
	② technical secondary school or high school	5	2.600±1.140			
	③ junior college education	19	3.530±0.612			
	④ undergraduate course	53	3.470±0.775			
	Master of ⑤ and above	3	2.000±1.000			
Have the relevant professional ability of ecological education courses	① junior high school and below	2	2.000±0.000	0.783	0.540	
	② technical secondary school or high school	5	2.000±0.000			
	③ junior college education	19	1.790±0.419			
	④ undergraduate course	53	1.750±0.617			
	Master of ⑤ and above	3	1.330±0.577			
Participate in the ecological education course discussion activities	① junior high school and below	2	2.000±0.000	0.845	0.501	
	② technical secondary school or high school	5	1.600±0.548			
	③ junior college education	19	1.680±0.478			
	④ undergraduate course	53	1.510±0.505			
	Master of ⑤ and above	3	1.670±0.577			
Have carried out ecological education curriculum activities	① junior high school and below	2	2.000±1.414	1.997	0.103	
	② technical secondary school or high school	5	1.600±0.548			
	③ junior college education	19	1.950±0.229			
	④ undergraduate course	53	2.040±0.553			
	Master of ⑤ and above	3	1.330±0.577			

According to Table 6, it can be seen that there is no significant difference in the mean value analysis of the current preschool teachers' educational qualifications in knowing whether the ecological education curriculum has the professional ability of ecological education curriculum, whether they have participated in ecological education curriculum seminars, and whether they have carried out ecological education curriculum activities.

Regarding the necessity of carrying out ecological education-related courses, the mean values of preschool teachers with different educational backgrounds in carrying out ecological education-related courses are significantly different. The post-test shows that the average of the necessity of carrying out ecological education related courses for junior colleges and undergraduates is significantly greater than that for masters and above. The main reason is that masters focus on theoretical knowledge and research, and junior colleges and undergraduates focus on theoretical and combined with practice.

Table 7: Differences in attitudes and behaviors of ecological education courses among professional titles

Attitude and behavior	professional ranks and titles	N	average value	F	P	posterior comparisons
Understanding of ecological education courses	a senior teacher	7	1.860±0.690	7.130	0.000	⑤>④>③>②>①
	② level 1 teacher	16	2.190±0.834			
	③ Level 2 Teacher	17	2.650±0.702			
	④ Level 3 teacher	10	2.900±0.738			
	⑤ other	32	3.130±0.707			
The Necessity of courses related to ecological education	① a senior teacher	7	2.570±1.512	2.847	0.029	③>②>⑤>④>①
	② level 1 teacher	16	3.560±0.814			
	③ Level 2 Teacher	17	3.650±0.606			
	④ Level 3 teacher	10	3.100±0.738			
	⑤ other	32	3.380±0.660			
Have the relevant professional ability of ecological education courses	① a senior teacher	7	1.290±0.488	1.842	0.129	
	② level 1 teacher	16	1.690±0.602			
	③ Level 2 Teacher	17	1.880±0.600			
	④ Level 3 teacher	10	1.800±0.422			
	⑤ other	32	1.840±0.515			
Participate in the ecological education course discussion activities	① a senior teacher	7	1.290±0.488	6.984	0.000	⑤>④>③>①>②
	② level 1 teacher	16	1.190±0.403			
	③ Level 2 Teacher	17	1.530±0.514			
	④ Level 3 teacher	10	1.600±0.516			
	⑤ other	32	1.840±0.369			
Have carried out ecological education curriculum activities	① a senior teacher	7	2.290±0.756	2.355	0.061	
	② level 1 teacher	16	2.130±0.500			
	③ Level 2 Teacher	17	1.940±0.556			
	④ Level 3 teacher	10	1.600±0.516			
	⑤ other	32	1.940±0.435			

According to Table 7, it can be seen that preschool teachers with different professional titles have a significant difference in the mean value analysis of understanding ecological education courses, the necessity of carrying out ecological education related courses, whether they have participated in ecological education course seminars, and whether they have carried out ecological education course activities difference. The results of the analysis show that the mean of the second-level teachers, third-level teachers, and others in understanding ecological education courses is significantly greater than that of senior teachers.

4. Countermeasures and suggestions

Through the analysis of the above results, in order to construct the operation mechanism of the ecological education curriculum, it is necessary to study the ecological niche of the new ecological education curriculum in the curriculum system, establish the concept of ecological ecological education curriculum, enhance the comprehensiveness of the curriculum objectives, and the connection and compatibility of the curriculum content. Several suggestions were put forward from several aspects, such as the diversity and openness of curriculum implementation, and the sustainable development of curriculum evaluation, in order to return to the benign development of ecological education curriculum, increase the effectiveness of ecological education curriculum, and promote the improvement of

children's social quality good development.

4.1 Strengthen the construction of teachers' team

Strengthen pre-service and post-service education for pre-school educators. Pre-service education is a series of education related to this field received by preschool teachers in normal colleges and universities. The level and quality of pre-service education pre-service teachers receive will have an important impact on their future work in pre-school education and their own development. As the main front for cultivating future pre-school teachers, normal colleges should undertake the major responsibility of cultivating qualified pre-school teachers. Although in recent years, with the emphasis on the quality of pre-school education by the state and all walks of life, the overall academic qualifications of the preschool teachers have improved, but the level of teachers' pre-service education is uneven, and some teachers have never heard of ecological education theory, and some even have Teachers who have received full-time teacher training in preschool education have never understood the relevant theories. In this regard, relevant colleges and universities should strengthen the rationality of the preschool education curriculum, enrich the knowledge system of preschool education students, and improve their ability to adapt to work, not only to open basic courses such as education, psychology, and teaching methods. , should also pay close attention to the current cutting-edge educational concepts and teaching models, help students broaden their knowledge, deepen the application of knowledge, and provide preschool education students with more opportunities to practice in kindergartens. It allows students to enter the kindergarten for practice and research more conveniently, and enables preschool teachers to achieve high-quality development of practical work and good self-development under the guidance of theory after entering the workplace.

Post-service education is the education related to the field received by preschool teachers in the actual work of preschool children. It can provide a strong impetus for the continuous development of teachers. To cultivate good ecological education literacy of kindergarten teachers, it is necessary to provide more training and learning opportunities for kindergarten teachers based on the actual work of kindergartens. For example, organize teachers to learn about ecological education in the form of lectures and seminars, or visit kindergartens with good ecological literacy in the form of visits to help teachers visit and copy. In addition, through new media means such as websites, Weibo, WeChat, and kindergarten public accounts, preschool teachers can infiltrate ecological and cultural knowledge and create an ecological and cultural learning atmosphere.

4.2 Enhance the comprehensiveness of curriculum objectives.

If the goal of kindergarten ecological education curriculum is regarded as a complete system and an organic whole, and preschool children are regarded as a complete individual in body and mind, the goal of kindergarten ecological education curriculum aims to promote children's social knowledge, social ability, social emotional attitude and In the development of values, in the three-dimensional target system, knowledge, ability, and emotional goals are a whole, and they are jointly internalized into the basic qualities that a complete child should have. In order to achieve the overall integrity of the curriculum objectives, it is necessary to improve the tendency of focusing on the cultivation of knowledge and ability and ignoring emotional experience in the curriculum objectives, implementing an experiential curriculum, and paying attention to the cultivation of children's social emotions, social attitudes and values, so that the curriculum objectives can be Children's social knowledge, social skills, and social emotions develop in a comprehensive and coordinated manner.

4.3 Enhancing the relevance of course content.

Ecological education should penetrate into five fields. In the "Guide to the Learning and Development of Children Aged 3 to 6", the classification of curriculum content is not to separate knowledge, but to make the content classification clear and more organized. It is undoubtedly the deviation of the curriculum concept, the lack of vision of ecological education, and the lack of awareness of the connection between various elements within the education system. If the two aspects of interpersonal communication and social adaptation are organically integrated, Combined with the integration of the content of the course, the development of ecological education course content will open up a new horizon. Therefore, in order to enhance the connection and compatibility of the course content, the course content should be able to cross and integrate vertically and horizontally. There is

also an ecological chain in the curriculum ecosystem. Unlike the ecological chain in nature, it emphasizes more on the flow of knowledge enrichment relationship [2]. As far as knowledge flow is concerned, in addition to the ecological chain of vertical enrichment, there are also horizontal cross-connections between various disciplines.

4.4 Enhancing the diversity and openness of curriculum implementation

The ecosystem is a diverse and open system. The kindergarten ecological education curriculum must increase the diversity of curriculum implementation, that is, it does not adhere to the traditional form of preaching, nor does it adhere to the inherent form of collective activities, but to carry out various forms of ecological activities as much as possible. Educational activities enable children to develop sociality in their favorite courses, and lay the foundation for growing into a good social person in a subtle and lively way. The openness of curriculum implementation must liberate children's five senses, hands, feet and brains, so that children can fully participate in the curriculum in a pleasant and full manner, focusing on emotional experience and personal practice. At the same time, this openness is also reflected in the openness of curriculum resources, fully exploiting the curriculum resources inside and outside the park, especially using the resources of families and communities to provide children with opportunities to fully contact the society. As an integral part of the ecological environment of the kindergarten curriculum, families, kindergartens and communities should work closely together to create favorable conditions for the development of young children. However, the ecological niches of the three are different, and their tasks and nature are also different. The three should exert their unique value in their respective ecological niches, and pay attention to the division of labor and cooperation. The concept of ecological education requires that when studying children's development, it is necessary to emphasize the description of the environment and background in which children develop, emphasizing that children's development is in the context of the ecological system environment, and it is meaningless to discuss preschool education without the environment [3].

5. Conclusion

With the development of preschool, the threshold for preschool teachers is also increasing, the number of preschool teachers receiving higher education has increased, and they have received a wide range of theoretical knowledge. The goal of carrying out kindergarten ecological education courses has always been a deviation from the concept of focusing on knowledge, ignoring emotions and behaviors, and the content of the course is not well integrated with children's actual life; the way of carrying out kindergarten ecological education courses is to imprison children in classes Group teaching, instead of leading children into life, into the community, and into nature with an open attitude; kindergarten ecological education courses do not take into account the sustainable development of children, and the curriculum development is still dominated by teaching materials, and the form is relatively rigid.

Acknowledgement

This work was supported by Guizhou Province 2020 College Students Innovation and Entrepreneurship Training Project: Exploration on the Operational Mechanism of Kindergarten Ecological Education Courses (No. S202010977063).

References

- [1] Wu Zhijie. *A Preliminary Study on the Practice of Smart Campus Construction Guided by Ecological Concepts—Taking the Smart Campus Construction of Guangzhou No. 97 Middle School as an Example* [J]. *Educational Circle*, 2019, 000(021):152-154.
- [2] Chen Xiangru. *The Enlightenment of Ecological Theory to Kindergarten Curriculum* [J]. *Journal of Luoyang Normal University*, 2014,33(06):124-126.
- [3] Jiang Shanshan. *Integration strategies of community preschool education resources from the perspective of ecological theory* [J]. *Curriculum Education Research*, 2014(18):31-32.