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# Analysis of Adaptability Difference of Ecological Migration Based on **Environmental Distance**

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#### Abstract

Background and aims: Ecological migration refers to the population who originally lived in an area with a harsh natural environment and basically no living conditions, moved out of their original residence, settled in the new area, and rebuilt their homes. The large settlement formed after the migration is the ecological migration area. Thus, this study aims to analyze the orientation accumulation of emotion, behavior, and cognition.

Materials and methods: Takes the ecological migration group in Minning Town, Ningxia as an example, from the three dimensions of emotion, behavior, and cognition, adopts the concept of "environmental distance", and comprehensively uses quantitative research methods such as the questionnaire method, environmental distance model and multiple linear regression model.

**Results:** The results show that to more scientifically explore the degree of change of teachers, students, parents, and administrators due to environmental changes before and after poverty alleviation in basic education in ecological immigrant areas, as well as the direct and indirect effects of factors affecting the adaptability of the basic education environment

Conclusions: The author hopes to put forward the development path and strategy of basic education in ecological immigrant areas.

Keywords: Ecological Immigration Area; Basic Education; Environmental Distance; Adaptive Differences; **Empirical Analysis** 

#### Introduction

Ecological migration refers to the population who originally lived in an area with a harsh natural environment and basically, no living conditions moved out of their original residence, settled in the new area, and rebuilt their homes. The large settlement formed after the migration is the ecological migration area. Minning Town, Yongning County, Yinchuan City, Ningxia Hui Autonomous Region, is the main battlefield of the immigration project to solve the problem of poverty alleviation in the southern mountainous areas of Ningxia. It is a typical ecological poverty alleviation resettlement area in China. Basic education is an important part of national education, an important measure to block intergenerational poverty, and a basic requirement to achieve educational equity. From this point of view, the ecological migration project is not only to protect or restore the special ecological environment in a certain area but also to help the original population permanently get out of poverty.

Therefore, the large-scale relocation, multi-ethnic settlement, and the integration of multi-cultures make the development of basic education in ecological migration areas present personalized characteristics different from other regions, and the resulting problem of how the basic education subject can adapt to the environment is worth in-depth study.

## **Objective**

Environmental adaptability is first caused by motivational factors and then produces adaptive mode, which is the dynamic process of the subject gradually realizing self-regulation. How to achieve the adaptation between environmental factors of basic education and between external factors and internal factors in the development process of basic education in ecological migration areas is the main problem to be analyzed and discussed in this paper. Through a case study on the development of basic education in Minning Town, Yongning County, Ningxia, and the adaptability of the immigrant environment, this study attempts to investigate the development status, characteristics, and internal and external environment of the basic education of this special group of ecological immigrants, and analyze the deep reasons behind it, to provide support for the optimization of the development theory and practice of basic education in China's ecological immigrant areas.





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# Literature Review **Literature Surveys**

Ecological migration is a stable and effective poverty alleviation method in implementing the poverty alleviation strategy, which can relieve the pressure brought by the population to the fragile ecological environment. With the in-depth implementation of the ecological migration relocation policy, the follow-up problems of relocation are prominent, especially reflected in education. In 1990, the American scientist Cowles introduced the concept of community relocation into ecology and pioneered the concept of ecological migration. He believed that ecological migration refers to the migration implemented to protect or restore the ecology. This paper further summarizes and collates the relevant literature on ecological immigration education and finds that in the study of ecological immigration area education, Chinese scholars analyze typical problems arising in the process of ecological immigration area education practice based on the actual conditions of different regions. It is found that the problems of education in the ecological immigrant area are mainly concentrated in four aspects; policy, school, family, and students themselves. In terms of policymaking, Yang, L.L. (2010) believes that the main problems of the government are: imperfect policy-making; unclear division of responsibilities of the education department; and ignoring the individual development of migrant children. In terms of school education, Tian, J.Z., et.al. (2015) believe that the shortage of teachers in the migration areas, the lack of course materials, and the mismatch between teaching methods and the migration environment are the main reasons for the stagnation of the development of basic education in ecological migration areas. In terms of family education, Cao, J., & Huang M. (2012) believe that most of the immigrants in the reservoir area go out to work due to economic difficulties, and their children are taken care of by their elderly grandparents. Their grandparents dote on their children too much, resulting in the poor self-care ability of the children in the immigrant area, low awareness of learning, weak self-control, fear of learning, and even tiredness of learning. From the perspective of students themselves, Xie, J.J. (2013) believes that children in different regions do not adapt to the identity of their own regional cultures. In addition, due to the differences in life, customs, and ideas, students' psychological problems are more prominent, mainly manifested as rebellion, feelings of gap, unsociability, and other psychological problems.

This study further summarizes and collates the relevant literature on "environmental adaptability". The study of environmental adaptation can be traced back to the ancient Greek educator Plato (2016). He pointed out in his book "Ideal": that in the process of adapting to the multicultural, to avoid the dregs of the external environment, but not reject and isolate a particular culture, this is the process of environmental adaptation. Domestic studies on the environmental adaptability of ecological migration mainly focus on the following points: Wang, Q.H., & Zhang, H.J. (2012) analyzed the environmental adaptability of immigrants from the Qingshanzui and Longyang Reservoir area and concluded that the problem of environmental adaptation is universal, but there are differences among different immigration modes. Among them, the resettlement mode of Qingshanzui City makes the original culture of immigrants completely change, making it difficult for them to adapt to the environment, while the nearby relocation mode of Longyang Reservoir area makes the cultural environment change little; Jia, W.H.(2012) mainly discussed the relationship between personality characteristics, coping styles and environmental adaptability of left-behind children in ecological immigrant areas, and proposed that the development of environmental adaptability of left-behind children has differences in age and placement methods and that the personality characteristics of left-behind children will directly affect environmental adaptability while coping styles will indirectly affect adaptability mainly through personality characteristics. Wang, X.Y. (2010) took the children of migrant workers as the research object and proposed that the status of environmental adaptation is not only related to whether students can achieve good physical and mental development and academic success at present, but also affects their confidence and expectation of future life. In addition, the difficulties that migrant children face in environmental adaptation are as follows: Sense of social difference and environmental adaptation, a sense of social distance and environmental adaptation, sense of identity and belonging, and environmental adaptation.

According to the literature review, studies around the adaptive issues of ecological migration have mostly focused on the areas of policy, school, family, and self. Rich research results have been achieved. However, there is still the following room for expansion: (1) In terms of research subjects, few studies specifically address the adaptability of basic education in ecological immigrant areas. There are no systematic and integrated research results; (2) In terms of the research methods, scholars mostly use qualitative research methods to study the educational adaptability of primary and middle school students and left-behind children and summarize the relevant paths to improve the adaptability of the educational



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environment. But the quantitative studies are relatively lacking, even rarely translate the cognition of environmental adaptability into variables. In short, the research on the environmental adaptability of basic education subjects in ecological migration areas needs to be further strengthened and expanded.

#### **Research Hypothesis**

Based on the local environmental background, environmental characteristics, and cognitive response together constitute the dynamic influencing factors, so the environmental adaptability difference is the result of the joint action of internal factors and external factors. This paper chooses to explore the three aspects of emotion, behavior, and cognition of the four subjects. The reason why this paper is based on the three dimensions of emotion, behavior, and cognition is that as psychologists say: "cognition is the source of emotion, the source of behavior activity, emotion is the behavior activity; emotion is gradually separated from cognition, it, in turn, promotes the development of cognition, behavior activity is gradually separated from emotion, which in turn promotes the development of emotion; cognition, emotion and behavior activity mutual penetration, interaction, mutual premise, and common development. "Therefore, emotional distance, behavioral distance, and cognitive distance can be used as the deep reasons for the adaptive differences in the basic educational environment before and after migration. So, the following research hypotheses are proposed:

Hypothesis 1: Teachers, parents, students, and managers in Minning Town have differences in the three dimensions of emotion, behavior, and cognition, while environmental adaptability strategies have different characteristics;

Hypothesis 2: The external environmental factors in Minning Town directly or indirectly affect the adaptability difference of teachers, parents, students, and administrators to the basic education environment after education poverty alleviation;

Hypothesis 3: The internal factors of the cognitive response of teachers, parents, students, and managers in Minning Town directly or indirectly affect the adaptive difference of the basic education environment after education poverty alleviation;

Hypothesis 4: There are indirect effects between external factors, internal factors, and internal and external factors that directly or indirectly affect the adaptability of teachers, parents, students, and administrators to the basic education environment after poverty alleviation.

#### Methodology

#### 1. Research Design

First of all, the four main bodies of Minning town were investigated. The combination of a questionnaire survey and in-depth interview was used to obtain the data and relevant materials, and the differences in environmental adaptability and its influencing factors were analyzed from the emotions, behavior, and cognition of teachers, students, parents, and managers. The questionnaire includes three parts: first, the basic personal information includes gender, age, education level, occupation, and living time in Minning Town; the second is 10 questions before environmental adaptability difference and 10 questions after poverty alleviation through education; third, there are 11 variables of factors affecting environmental adaptability. For variable quantitative processing and assignment, establish variable scale as shown in Table 1, and Table 2, including "1" means the main body fully agrees with poverty education before (after) the basic education system, "5" said the main body completely disagree education before (after) of the basic education system, tend to education before the basic education system, other assignments for the intermediate state.

Table 1 Variable selection of environmental adaptability of basic education subjects in Minning Town

Dimension	Variable description	Assignment
	The degree of cognitive pressure brought about by the impact of the	[5 4 3 2 1]
Emotion	basic education environment before education poverty alleviation	
	Love to the basic education environment before education poverty	[5 4 3 2 1]
	alleviation	
	The aversion to the basic education environment before education	[5 4 3 2 1]
	poverty alleviation	
	The dependence on basic education methods before poverty alleviation	[5 4 3 2 1]
Behavior	through education	



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Dimension	Variable description	Assignment
	The degree of basic education means before education poverty	[5 4 3 2 1]
	alleviation	
	Frequency and degree of basic education before daily participation in education	[5 4 3 2 1]
	Frequency and degree of basic education before poverty alleviation in social communication	[5 4 3 2 1]
	The influence of degree of basic education on behavior before education and poverty alleviation	[5 4 3 2 1]
Cognition	The recognition degree of basic education before poverty alleviation through education	[5 4 3 2 1]
	Familiarity with basic education before poverty alleviation	[5 4 3 2 1]

Table 2 Selection of variables of environmental adaptability after educational poverty alleviation in basic education subjects in Minning Town

Dimension	Variable description	Assignment
	The openness degree of the basic education environment after	[5 4 3 2 1]
Emotion	educational poverty alleviation	
	The degree of liking the basic education environment after poverty	[5 4 3 2 1]
	alleviation	
	Compliance with the basic education environment after education	[5 4 3 2 1]
	poverty alleviation	
	The dependence on basic education methods after poverty alleviation	[5 4 3 2 1]
Behavior	through education	
	The degree of basic education means after education poverty alleviation	[5 4 3 2 1]
	Frequency and degree of basic education after daily education	[5 4 3 2 1]
	participation in poverty alleviation	
	Frequency and degree of basic education after poverty alleviation in	[5 4 3 2 1]
	social communication	
	The influence of degree of basic education on behavior after education	[5 4 3 2 1]
	and poverty alleviation	
Cognition	The recognition degree of basic education after poverty alleviation	[5 4 3 2 1]
	through education	
	Familiarity with basic education after education and poverty alleviation	[5 4 3 2 1]

The two scales intuitively reflect the town of basic education subject environmental adaptability differences by the combination of internal and external factors, including cognitive response, institutional change, technology environment, and the impact of basic education environment, from the emotional, behavioral, and cognitive three dimensions. The variables established can reflect the internal and external factors that affect the subject's environmental adaptability (Table 3), and analyze the factors that produce direct and indirect effects.

Table 3 The selection of factors affecting the environmental adaptability difference (emotion, behavior, and cognition) in basic education subjects

Dimension	Sign	Variable description	Assignment
Emotional response	X1	The subject's emotional acceptance of the basic	[5 4 3 2 1]
		educational environment	
Behavioral response	X2	The subject's action power to the basic education	[5 4 3 2 1]
		environment in the behavior	
Cognitive response	X3	The subject's cognition degree of the basic education	[5 4 3 2 1]
		environment	
Sociocultural	Y1	The influence degree of national culture on the main body	[5 4 3 2 1]
environment	Y2	The degree of influence of immigrant culture on the	[5 4 3 2 1]
		subject	
	Y3	The influence degree of campus culture on the main body	[5 4 3 2 1]



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Dimension	Sign	Variable description	Assignment
Policy system impact	Y4	The degree of influence of the national poverty alleviation policy	[5 4 3 2 1]
	Y5	The impact degree of poverty alleviation policies through education	[5 4 3 2 1]
	Y6	The extent of the role of the local government	[5 4 3 2 1]
Technical	Y7	The influence degree of informatization	[5 4 3 2 1]
environmental	Y8	The degree of the impact of digitization	[5 4 3 2 1]
impact	Y9	The influence degree of intelligence	[5 4 3 2 1]
Population and	Y10	The degree of population environment on the subject	[5 4 3 2 1]
natural environmental impacts	Y11	The degree to which the natural environment affects the subject	[5 4 3 2 1]

### 2. Statistics Used for Data Analysis

To verify the four hypothesis tests, the weight of environmental adaptability before and after education poverty alleviation was assigned, and then the distance between the environmental elements of basic education before and after education poverty alleviation was calculated. Finally, the structural equation model was used to analyze the factors affecting the difference in environmental adaptability, to verify the research hypothesis.

First, let  $X_{ij}$  be the value of the j survey object corresponding to i environmental adaptability index, thus establishing the variable matrix as  $A=[X_{i\ j}]m^*n$ , then the coefficient of variation for the environmental adaptability problem is,  $\overline{x}_i$  is the mean value of the respondents' indicators of environmental adaptability, let the weight of the variable.

Second, calculating scores for emotional, behavioral, and cognitive dimensions relative to environmental adaptation, represented by  $\phi_{ij} = W_i x_{ij}$ .

Thirdly, the environment distance model is constructed. According to the difference between teachers, students, parents, and managers in emotion, behavior, and cognition, the environmental distance is further calculated and applied to the study of environmental adaptability difference, which has the value and feasibility of theoretical and empirical research. The calculation formula is:

$$D = \frac{D_1 + D_2 + D_3}{3}$$

$$D_i = \frac{(S_i - S_j)^2}{V_i}, \quad i = 1,2,3$$

Where D represents the "environmental score" of the environmental adaptability difference, Si represents the environmental adaptability score in the emotional, behavioral, and cognitive dimensions before implementing the subject in the basic education policy; Sj represents the environmental adaptability score of the subject in the emotional, behavioral and cognitive dimensions after implementing the basic education policy; Vi represents the variance of the environmental adaptability score in the emotional, behavioral and cognitive dimensions. The distance between the difference in environmental adaptability is the mean, and the distance between emotion, behavior, and cognition is the difference between their respective scores to their variance. Finally, according to the Pearson correlation coefficient between the influencing variables, the significant variables were selected at 1% and 5%, the multiple linear regression analysis of the significant variables was analyzed, the structural equation of the influencing factors and dependent variables was constructed, and the direct and indirect effects of the adaptive difference of basic education environment in Minning Town were analyzed.



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#### **Results**

# Reliability and validity test

To test whether the questionnaire data are reliable and consistent, it can be explained by the reliability data. As shown in Table 4, the index test, emotional variables, behavioral variables, and cognitive variables before and after environmental poverty alleviation are all greater than 0.6, and the test of influencing environmental factors is less than 0.1, proving that the selected indicators used to analyze environmental adaptability differences and influencing factors meet the reliability requirements, and the next research can be carried out.

Table 4 Reliability analysis of corresponding variables and influencing factor variables

Reliability analysis o	f environmental	Cronbach's Alpha	Standardized Cronbach's
adaptat	ion		Alpha
The environment	Indicator test	0.771	0.811
before poverty	Emotional test	0.656	0.715
alleviation through	Behavioral test	0.618	0.662
education	Cognitive test	0.673	0.733
The environment after poverty alleviation	Indicator test	0.721	0.723
through education	Emotional test	0.621	0.701
	Behavioral test	0.714	0.768
	Cognitive test	0.702	0.651
Overall indicators		0.819	0.788
Inspection of the indicate environmental factors	ors affecting	0.014	0.027

The analysis of the questionnaire validity is to consider the authenticity of the statistical analysis results and the expected objectives of the questionnaire design. As shown in Table 5, the validity index is greater than 0.4, indicating that the data quality is good and the next research can be carried out.

Table 5 Validity analysis of the corresponding variables and the influencing factor variables of the environmental adaptability difference

Environmental ac	laptive validity analysis	KMO measure of	Standardized Cronbach's Al			
		sampling adequacy	Bartlett's test of Sphericity	df	Sig.	
The environment	Overall inspection	0.733	673.983	67	0.000	
before poverty	Emotional test	0.600	34.893	45	0.000	
alleviation through	Behavioral test	0.613	376.937	133	0.000	
education	Cognitive test	0.479	16.000	10	0.000	
The environment	Overall inspection	0.688	376.89	32	0.000	
after poverty	Emotional test	0.602	35.87	56	0.000	
alleviation through	Behavioral test	0.571	25.89	22	0.000	
education	Cognitive test	0.561	34.98	3	0.000	
Overall indicators		0.491	675.77	324	0.000	
Inspection of the indi	cators affecting	0.510	85.801	44	0.000	
environmental factors	1					

#### **Data Analysis of the Quantitative Data**

The variable factor load values and Pearson correlation coefficient matrix of environmental adaptability influencing factors were calculated. According to Table 6, the selected variable factor load was greater than 0.5, so the variables were selected to construct four structural equation models.



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Table 6 Correlation coefficient of factors influencing differences in environmental adaptability

Variable	Y1	<b>Y2</b>	<b>Y3</b>	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11
X1	0.56	0.452	0.22	0.123	0.110	0.230	0.01	0.02	0.09	0.52	0.42
	3		3			0.120	2	8	3	3	9
X2	0.45	0.256	0.35	0.200	0.631	0.511	0.27	0.26	0.25	0.48	0.36
	5		3				1	3	9	5	6
X3	0.69	0.367	0.52	0.562	0.532	0.455	0.02	0.24	0.05	0.78	0.45
	4		0				3	1	1	1	8
Y1	1										
Y2	0.56	1									
	3										
Y3	0.78	0.056	1								
	0										
Y4	0.36	0.026	-	1							
	3	**	0.23								
-			8								
Y5	0.23	0.219	0.35	-	1						
	0		6	0.389							
<u>Y6</u>	0.65	0.211	0.36	0.283	0.089	1					
10	7	0.211	7	0.202	0.009	•					
Y7	0.42	-0.410	0.07	0.183	0.007	0.477	1				
	0		0								
Y8	-	0.075	0.16	0.333	0.378	-0.453	0.00	1			
	0.03		7				2				
	1										
Y9	-	0.281	-	0.560	0.298	-0.378	0.18	0.44	1		
	0.13		0.03		**		1	0			
	3		1*								
Y10	0.69	0.019	-	0.331	0.300	0.550	0.06	0.37	0.37	1	
	3		0.36				6	8	4		
			7								
Y11	0.57	0.450	0.27	0.392	0.356	0.423	0.28	0.09	0.18	0.23	1
	1		9				9	4*	9	3	
Environm	0.50	0.298	0.09	0.330	0.008	0.522	0.30	0.49	0.49	-	0.23
ent	6*		3	*		**	9	3	9*	0.25	5
distance										6*	

Note: "\*" and "\* \*" are significant at the 5% and 1% confidence levels, respectively.

# The structural equation model was constructed as follows:

Model 1: the main body of basic education environment acceptance (X1), the subject of basic education environment on the behavior of action (X2), the main body of cognition of basic education environment (X3), the degree of the influence of the population environment (Y10), the influence of the natural environment on the main body (Y10) as independent variables, environmental adaptive distance for the dependent variables.

Model 2: The acceptance degree of the subject to the basic education environment (X1), the degree of influence degree of national culture on the subject (Y1), the influence degree of immigrant culture on the subject (Y2), the degree of influence degree of campus culture on the subject (Y3) are independent variables, and the distance of environmental adaptability is composed of dependent variables.



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Model 3: The acceptance degree of the subject to the basic education environment (X1), the influence degree of national poverty alleviation policy (Y4), the influence degree of education poverty alleviation policy (Y5), the effect degree of local government (Y6) are independent variables, and the distance of environmental adaptability is the dependent variable.

Model 4: The acceptance degree of the subject to the basic education environment (X1), the influence degree of informatization (Y7), the influence degree of digitalization (Y8), and the influence degree of intelligence (Y9) are independent variables, and the distance of environmental adaptability is composed of dependent variables.

On this basis, the validity test of the four models (Table 7) shows that model 2, model 3, and model 4 pass the test, and the research on the intermediary effect of environmental adaptability difference in Minning Town can be carried out.

Table 7 4 Structural equations

Fitted value	-	Reference standard	Model 1	Model 2	Model 3	Model 4
	x2	P>0.05	7.780	0.000	0.030	0.078
Absolute fit	AGFI	AGFI≥0.90	0.677	0.998	0.998	0.921
values	RMR	As small as possible	0.002	0.032	0.028	0.010
	RMSEA	RMSEA<0.05	0.177	0.000	0.008	0.200

### **Summary of the Results**

Based on the analysis of emotion, behavior, and cognition, it is found that there are certain norms and significance to analyze the tendency of teachers, students, parents, and managers to the adaptability differences of basic education environment, and there are relatively obvious cognitive differences between the subjects. Therefore, this paper constructs the core concept of environmental distance to reflect the adaptive differences of different subjects of basic education to the influencing factors of the external environment, as shown in Table 8.

Table 8 The weighted score and tendency of the adaptability of the basic education subjects to the basic education environment in Minning Town

Main	F	Emotion	В	Behavior Cognition		ognition
body type	Weighted score	Tendentiousness (%)	Weighted score	Tendentiousness (%)	Weighted score	Tendentiousness (%)
Teacher	33.3	47.3	26.5	72.3	48.6	79.6
Student	40.0	45.1	19.2	22.3	23.6	29.1
Parent	23.6	30.3	15.5	22.0	25.3	26.7
Administrator	36.9	61.6	55.2	80.5	53.4	75.6

Therefore, it can be seen that the influence of ethnic culture and immigrant culture on the difference in environmental adaptability is robust. Poverty alleviation in basic education in Minning Town has a positive impact on the emotion, behavior, and cognition of the subjects, especially the positive reaction of teachers and administrators on the adaptability to the environment is relatively strong. The results show that when the basic education environment changes, teachers and administrators improve their emotions, behaviors, and cognition faster and more actively. However, there are certain limitations, such as a lack of internal motivation of teachers, a lack of basic cognition of comprehensive quality education in families with students and parents, and difficulty in stimulating students' learning potential. Therefore, they have less difference in environmental adaptability than parents and students, which also shows that in terms of improving environmental adaptability, parents have a certain influence on students in terms of family as a unit, and the entire educational environment in the region has not been completely established. More attention should be paid to parents' adaptability to environmental factors in the three dimensions of emotion, behavior, and cognition. Explore the factors with direct and indirect effects, and conduct positive guidance.



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#### Discussion

Table 9 Statistical characteristics of the environmental distance of basic education subjects before (after) poverty alleviation through education

	<b>Emotional</b>	Behavioral	Cognitive	Total environmental			
	environment	environment	environment	distance			
	distance	distance	distance				
The environme	ental distance of the	subject before po	overty alleviation	through education			
Minimum	0.001	0.001	0	0.128			
Maximum	12.373	5.785	6.780	4.957			
Mean value	4.783	1.222	1.570	3.055			
Range	5.877	2.883	2.267	3			
Outlier	4.894			4.55			
The environme	ental distance of the	subject after pov	erty alleviation t	hrough education			
Minimum	0	0	0	0.102			
Maximum	9.330	5.093	4.551	3.879			
Mean value	2.897	1.209	1.522	2.773			
Range	3.777	2.830	2.219	2			
Outlier	6.951			4.03			
The difference between the environmental distance of the subjects before (after) poverty							
alleviation thro	ough education						
Difference	-1.886	-0.013	-0.048	-0.282			
value							

The distance comparison in Table 9 shows that teachers, students, parents, and administrators in Minning Town have shortened certain differences in their adaptability to the environment in three dimensions of emotion, behavior, and cognition, which also indicates that the implementation of the poverty alleviation policy through education has played a very positive role in the local area, laying a theoretical and practical foundation for the government to carry out the basic education work in the future. It has also boosted the confidence of local migrants. The process of basic education contains the two-way interaction of emotion, cognition, and behavior. The coupling of emotion and behavior can play a positive role in the effective basic education of teachers, students, parents, and administrators in Minning Town through an implicit mechanism, and cultivate the responsibility of the subject in behavior. As the premise of basic education, cognition, and understanding of the real educational situation can improve the subject's adaptability to environmental factors. As the foothold of emotion and cognition, behavior is also its growth point. It is necessary to guide local teachers, students, parents, and administrators from the theoretical level to the practical level to establish a new basic education model.

# Conclusion

The complicated connection between external factors and internal factors can be considered by the measure of "distance". The weighted scores of the environmental adaptability in the three dimensions of emotion, behavior, and cognition before and after the implementation of the education poverty alleviation policy in Minning Town were different respectively, and the Pearson correlation coefficient between them was calculated. The results showed that the difference between the environmental adaptability of emotion and the environmental adaptability of the behavioral and cognitive dimensions was at a significant level of 5%. Pearson correlation coefficients were 0.233 and 0.270, respectively, so there was little correlation between them, while the correlation coefficient between behavioral environmental adaptation difference and cognitive environmental adaptation difference was 0.578, so there was a big correlation between them. It can be seen that there are surface and deep differences in environmental adaptability, mainly because emotion is more complex than behavior and cognition.

"Environmental distance" can correctly reflect the environmental adaptability difference of



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teachers, students, parents, and managers in Minning Town before and after the implementation of the education poverty alleviation policy. The greater the environmental distance is, the greater the adaptability difference between the subject to the government before and after the poverty alleviation through education (such as Table 6). The environmental adaptability of the basic education subjects in Minning Town is more different than behavior and cognition, and the complexity is also large, among which the calculated environmental distance can be used as the dependent variable in the study of direct and indirect effects of environmental adaptability difference.

#### Recommendations

To sum up, based on the three dimensions of emotion, behavior, and cognition, teachers, students, parents, and managers four subjects, this study conducted a comparative analysis of the differences in the adaptability of basic education environments before and after the implementation of poverty alleviation through education. Meanwhile, quantitative research methods such as the questionnaire method, environmental distance model, and multiple linear regression model were comprehensively used to further pay attention to and analyze the direct and indirect effects in depth. The adaptability of the relevant subjects to the external environment is a response to the changes in the basic education environment. The emotional, behavioral, and cognitive adjustment of the relevant subjects in the environment will continuously improve the dynamic process of environmental adaptability, which must be the thinking tool and theoretical basis for the in-depth study of the difficult adaptability of the basic education environment. In the process of promoting the development of basic education in ecological immigrant gathering areas, teachers, students, parents, and education administrators are always the key elements of carrying out various educational activities, and also the core subjects of various educational activities. From this point of view, the focus of basic education development in ecological migration areas in the future is not only on how to promote the change of the subject behavior but also on how to create conditions to realize the interactive adaptation and matching between the subject and environmental factors, support and coordinate each other, to release the maximum efficiency in the development process.

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