

# Article What Influences the Self-Educational Expectations of China's Migrant Children in the Post-Pandemic Era

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Abstract: The coronavirus pandemic is forcing societal changes, even along the trajectories of international tourism, educational development, and training systems. Existing research has demonstrated that scholastic attainment, parental educational expectations, and school type have significant impacts on the self-educational expectations of migrant children. Nevertheless, there is still insufficient research on the differences in subject grades, parental educational expectations when it comes to choices regarding specific learning phases, and the impact of school types on specific learning phases. Taking "self-educational expectations = high school degree and below" as the control group, we selected the data of migrant children in grade nine from the China Education Panel Survey (CEPS) and employed multinomial logistic regression (MLR) to investigate the factors affecting the selfeducational expectations of China's migrant children. The results showed that the standardized scores of Chinese children and the math scores of migrant children only have a significant positive impact on their self-educational expectations for either a doctoral degree or master's degree and a bachelor's degree, respectively. Parental educational expectations will greatly facilitate the self-educational expectations of children when these are generally consistent with the type of choice of their children's self-educational expectations. School type only plays a part when the self-educational expectations of migrant children are to attain a bachelor's degree. The results can help us understand the differences in the educational expectations of parents and their children; guide parents to positively view their children's scholastic attainment, emotions, and development goals; and help schools fairly allocate high-quality educational resources in promoting the integration of students from different backgrounds.

**Keywords:** migrant children; self-educational expectation; parental educational expectation; scholastic attainment; China

# 1. Introduction

The self-educational expectations of migrant children are important for the fairness of society and school education, and therefore, reflect the demands for individual development and of parents to obtain high-quality educational opportunities for their children. However, the lack of fair treatment among migrant children and local children in educational life affects, educational equity [1], including the exclusion of migrant children from schooling and the unequal distribution of curriculum resources [2–5], which imposes restrictions on the self-educational expectations of migrant children to a certain extent.

Self-educational expectations can effectively predict the number of years of education that children actually complete [4,6]. Not only is this number affected by multiple factors, such as parents and scholastic attainment, but this predictability also has different effects in different countries and their social system contexts. It has been indicated that the increase in the educational attainment of the mothers themselves in the United States brings about a rise in the expectations of their children to obtain a bachelor's degree (e.g., [7]). Contrary



**Citation:** Gao, H.; Cai, Z.; Wu, J. What Influences the Self-Educational Expectations of China's Migrant Children in the Post-Pandemic Era. *Sustainability* **2022**, *14*, 9429. https:// doi.org/10.3390/su14159429

Academic Editors: Luis J. Callarisa Fiol, Javier Sánchez García and Juan Carlos Fandos Roig

Received: 3 June 2022 Accepted: 27 July 2022 Published: 1 August 2022

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**Copyright:** © 2022 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https:// creativecommons.org/licenses/by/ 4.0/). to this point of view, after employing and comparing databases such as the High School and Beyond study of 1980, the National Educational Longitudinal Study of 1990 and the Education Longitudinal Study of 2020, a looser connection was found between the educational expectations of American students and the level of education of their parents in 2002 [8]. In addition to the influence of parents, students' educational expectations may also be affected by their own scholastic competence [9]. Exactly as Fujihara's [10] study on the impact of Japanese students' educational expectations demonstrated, this competence influences the type of and level of high schools that students attend for their education. Many scholars have also based themselves in El Salvador and other countries to explore why students' access to education affects self-educational expectations because of their social class [11,12] or broad social culture [12,13].

Many scholars have shaped manifold theories on educational expectations on the basis of empirical research on students' educational expectations. In this regard, one example is the adopt-adapt framework, which states that students can moderately adjust their educational expectations when there is a large change in their average grades [6]. Another example is rational choice theory, which emphasizes rational measurement and argues that students' educational expectations are formed because of rational calculations, the determinants of which are costs, benefits, and probability of success for obtaining degrees of every kind [14]. In forming the educational expectations of students, degrees with the highest subjective expected utility (SEU) for students will be favored by them. The ability-tracking theory [15], which emphasizes the impact of the education system, has revealed that students in highly differentiated education systems are assigned to different schools building on their scholastic competence. In this way, students embark on different developmental trajectories in their life. Once students are on developmental trajectories beyond their expectations, they will be more likely to raise their self-expectations, and vice versa. Furthermore, status attainment theory [16], which underlines social stratification, states that students' educational expectations mainly take root in family background and social influence. A reference for analyzing the influencing factors and explanatory mechanisms of migrant children's self-educational expectations in the Chinese cultural context can rely on these theories.

It is evident that existing research has theoretically or empirically researched several factors (such as scholastic attainment, parental educational expectations, and school type) that influence students' self-educational expectations. The influence of each factor, however, differs greatly due to the different types contained within them. Given this, we cannot roughly determine that all types of the same factor have a significant impact on self-educational expectations. In addition, the self-educational expectations of migrant children and local children also vary to some extent. More research can be found on these questions to explore different types of factors that affect the self-educational expectations of China's migrant children.

#### 2. Literature Review and Hypothesis

The self-educational expectations of migrant children are often subject to multiple factors. From the perspectives of individual, family, and school, among other things, the influence of scholastic attainment, parental educational expectations, and school type dominates. Many scholars have confirmed that one of the most significant elements causing students to have strong educational expectations is excellent scholastic attainment [17–20]. Wei and Ma [20], for example, also employed the CEPS database and multiple linear regression (MLR) to show a significant impact of middle school students' grades on self-educational expectations by setting result rankings and educational expectations as continuous variables. Specifically, students' decisions to pursue higher education may be subject to the perceptions of their own grades [21]. The "Immigrant Optimism Paradox", in contrast, asserts that no direct relationship between the educational expectations of immigrant groups and actual academic performance is seen and that immigrant groups are more likely to keep to their original expectations [15]. In contrast, the educational expectations of China's migrant children are

not always at a high level but may be lowered once they perceive difficulties there [22,23]. Similarly, it has been affirmed that students adjust their educational expectations by relying on information about their academic potential, which is a process that precisely dominates the formation of educational expectations [24]. Students only moderately adjust their educational expectations (up to 0.80 years) when there is a great change in their average grades [6]. Furthermore, a few studies have examined the relationship between self-educational expectations and specific subject grades. A typical case is that of Jackson et al. [25], who took Black male students as subjects and demonstrated that there is a significant positive regulating effect in the relationship between self-educational expectations and mathematics grades. However, previous studies have failed to clarify whether grades in Chinese, math, and English classes have any effect on the self-educational expectations of migrant children. Based on this, we propose Hypothesis 1 as follows: grades have a significant impact on the educational expectations of migrant children.

Children's grades are also subject to parental expectations [26-29]; this argument was made by Benner et al. [26], who employed structural equation modeling to make it clear that parental educational expectations can, both directly and indirectly, affect children's academic self-concept, thereby affecting their mathematical grades. Grades are related to self-educational expectations, which in turn are affected by parental educational expectations [9,30,31]. After surveying 230 current students twice (in grades seven and nine), logistic regression results showed that parental educational expectations can significantly predict children's educational expectations [28], which may be due to the influence of cultural capital or the familial economic status of those around the children [16,32]. Furthermore, parents—the significant others of children's educational expectations—determine the social context in which migrant children live. Students from favorable social contexts not only behave better in school but also obtain more positive evaluations, expectations, and encouragement from significant others. It is interesting to note that exploring the influence of parents' socioeconomic status on children's educational expectations has not only revealed the weak influence of parents on scholastic attainment but also incarnated the strong influence of parents as significant others on children [16]. The literature, however, has not paid enough attention to whether the choice of parental educational expectations for junior college education, bachelor's degree, master's degree, or doctoral degree all affects the educational expectations of children. Based on this, we propose Hypothesis 2 as follows: parental educational expectations significantly affect the educational expectations of their migrant children.

In addition, the educational expectations of migrant children are related to the effects of their experiences in school. These effects are, however, affected by different types of schools that enroll migrant children, including municipal state-run schools and nonstate-run schools (or schools for migrant children). School type may affect students' self-educational expectations by affecting their grades. When the sample selection bias (that is, the variables of family and personal influence) is controlled, it is found that migrant children who study in state-run schools in the inflow area perform better [33] with relatively higher expectations. In contrast, migrant children benefit less from scholastic attainment when they attend selective schools [34]. Furthermore, by applying a multilevel mixed-effects regression model to survey the 19,487 selected students based on the CEPS database for the academic years from 2013 to 2014, scholars have found that if a school has a higher average class status or greater class heterogeneity, then students will have higher educational expectations [35]. Renzulli and Barr [12] argued, however, that educational expectations are due to broad sociocultural status rather than the social origin of students and may be the result of misinformation in a broad social culture, even social pressures [13]. Nonetheless, existing research has not revealed whether school type has an impact on the self-educational expectations of migrant children when they choose junior college education, a bachelor's degree, master's degree, or doctoral degree. Based on this, we propose Hypothesis 3 as follows: school type has a significant impact on the educational expectations of migrant children.

In sum, existing research has made certain contributions, i.e., it has revealed the impact of scholastic attainment, parental educational expectations, and school type on migrant children's self-educational expectations. However, there is not enough evidence to demonstrate the differences in the impact of different subject grades, parental educational expectations regarding the choice of specific learning phases f, and the impact of school types on specific learning phases. Taking "self-educational expectations = high school degree and below" as the control group, this paper conducted a multinomial logistic regression study on the factors influencing the self-educational expectations of China's migrant children to compensate for the deficiencies of previous research. Therefore, the following research questions are put forward:

- (1) Do the grades for different subjects affect the self-educational expectations of migrant children?
- (2) Does the choice of parental educational expectations for junior college education, bachelor's degree, master's degree, or doctoral degree affect their children's selfeducational expectations?
- (3) Does school type affect the choice of self-educational expectations of migrant children for junior college education, bachelor's degree, master's degree, or doctoral degree?

Answering these questions will be allow us to have a better understanding of the educational status of migrant children under the Chinese education system and to detail the application types of educational expectations research. Furthermore, this will help us to advise on the development of public education policies for migrant children.

#### 3. Data, Variables and Analysis Methods

#### 3.1. Data Sources

First, the baseline data of the China Education Panel Survey (CEPS) for the school years from 2013 to 2014, which was designed and implemented by the National Survey Research Center at Renmin University of China (NSRC), were used in this paper; then, based on the migration status of children, we identified 3379 samples of migrant children, including 1338 graduates of junior middle school (grade 9). Finally, a total of 1164 valid samples were obtained after eliminating invalid samples.

#### 3.2. Variables

In this study, the self-educational expectations of migrant children were used as the dependent variable, and grades of students, parental educational expectations and school type were taken as independent variables. Among them, the variable of self-educational expectations was measured by the item "What degree do you hope you will eventually get?" There were 10 options in the item, namely, "1. I want to quit school now", "2. Junior high school diploma", "3. Diploma of technical secondary school/technical school", "4. Diploma of vocational high school degree", "5. High school degree", "6. "Junior college education", "7. Bachelor's degree", "8. Master's degree", "9. Doctoral degree", "10. Whatever". There were too many options and too small frequencies among these options. In view of this outcome, the options were further classified. Of the samples, those who chose Item 10 were removed, the old values of 1, 2, 3, 4, 5 were reassigned to 1; the old values of 6 and 7 were reassigned to 2 and 3, respectively, and the old values of 8 and 9 were reassigned to 4. The standardized scores for Chinese, math, and English in the mid-term examination of the school year of 2013 were used to represent students' grades. The variable of parental educational expectations was measured with the item "What are your parents' educational expectations for you?", for which the assignment method was the same as that used for children's self-educational expectations. School type, as a categorical variable, was divided into two categories: nonstate-run schools and state-run schools. In addition to the variables above, the explained variables may be affected by other variables as well. In this regard, we controlled for variables such as gender, cognitive ability, and parents' highest educational level (father or mother with the higher education level would be eligible). Finally, each

variable is described in Table 1, and the descriptive statistics of each variable are shown in Tables 2 and 3.

Table 1. Variable declaration.

Variable Types	Variable Names	Variable Declaration
Dependent variable	Self-educational expectations	<ol> <li>High school and below;</li> <li>Junior college education;</li> <li>Bachelor's degree;</li> <li>Master's degree or doctoral degree</li> </ol>
	Standardized scores for Chinese	Continuous variable
	Standardized scores for math	Continuous variable
	Standardized scores for English	Continuous variable
Independent variables	Parental educational expectations	<ol> <li>High school and below;</li> <li>Junior college education;</li> <li>Bachelor's degree;</li> <li>Master's degree or doctoral degree</li> </ol>
	School types	0 = Nonstate-run schools; 1 = State-run schools
	Gender	0 = female; 1 = male
Control variables	Cognitive ability	Continuous variable
	Parents' highest educational level	0 = High school and below; 1 = High school and above

 Table 2. Descriptive statistics of continuous variables.

	$\overline{\mathbf{X}}$	SD	Min	Max	Ν		
Ind	Independent variables						
Standardized scores for Chinese	71.178	9.300	6.16	92.24	1164		
Standardized scores for math	70.699	9.461	31.08	96.53	1164		
Standardized scores for English	70.438	9.533	31.35	95.90	1164		
Control variables							
Cognitive ability	9.08	3.781	1	21	1164		

Table 3. Descriptive statistics of categorical variables.

Variables	Variable Types	Frequency	Percentage (%)
	High school and below	221	19.0
Salf adjugational	Junior college education	175	15.0
Self-educational	Bachelor's degree	458	39.3
expectations	Master's degree or doctoral degree	310	26.6
	High school and below	282	24.2
Parantal adjugational	Junior college education	162	13.9
expectation	Bachelor's degree	521	44.8
	Master's degree or doctoral degree	199	17.1
School types	Nonstate-run schools	133	11.4
School types	State-run schools	1031	88.6
Conton	Female	588	50.5
Gender	Male	576	49.5
Parents' highest	Below high school	750	64.4
educational level	High school and above	414	35.6

#### 3.3. Analysis Methods

We chose the multinomial logistic regression model as the research model in this paper on the grounds that the dependent variable is a quartile and categorical variable. The MLR is a nonlinear function that can be converted to a linear function by taking the logarithm. The function is now expressed as follows: for a dependent variable with *J* classification, if one of the options is used as the control group, J - 1, the odds ratio of other options will occur. Taking the "self-educational expectation of migrant children = high school degree and below" as the control group and combining the variables of this paper, the odds ratio formula that affects migrant children's choice of a junior college education is as follows:

$$\ln\left(\frac{P_{junior \ college \ education}}{P_{high \ school \ degree \ and \ below}}\right) = \alpha_{junior \ college \ education} + \beta_1 x_1 + \beta_2 x_2 + \dots + \beta_k x_k \quad (1)$$

where the probability of event occurrence is P = p(y = j|x),  $j = 1, 2, 3, 4, x_k$  is the explanatory variable, k is the number of explanatory variables, and  $\beta_k$  is the coefficient of the kth explanatory variable. Additionally, taking the "self-educational expectation of migrant children = high school degree and below" as the control group, the odds ratio formula that affects migrant children's choice of bachelor's degree is as follows:

$$\ln\left(\frac{P_{bachelor's \ degree}}{P_{high \ school \ degree \ and \ below}}\right) = \alpha_{bachelor's \ degree} + \beta_1 x_1 + \beta_2 x_2 + \dots + \beta_k x_k$$
(2)

The odds ratio formula that affects migrant children's choice of a master's degree or doctoral degree is as follows:

$$\ln\left(\frac{P_{master's \text{ or doctor's degree}}}{P_{high \text{ school degree and below}}}\right) = \alpha_{master's \text{ or doctor's degree}} + \beta_1 x_1 + \beta_2 x_2 + \dots + \beta_k x_k \quad (3)$$

#### 4. Data Analysis

### 4.1. Results of Model Fitting

In the model based on the research hypotheses, the variable self-educational expectations were taken as the dependent variable, grades (including standardized scores for Chinese, math and English), parental educational expectations, and school type were taken as independent variables, and gender, cognitive ability, and parents' highest educational level were taken as control variables to model. First, the model-building effect was tested by introducing the "goodness-of-fit" indicator. This indicator refers to the gap between the constructed model and the actual case. The null hypothesis in the goodness-of-fit test is that the model fits the observed data well. Table 4 presents the Pearson goodness-of-fit test, which is p = 0.996. The null hypothesis does not reject the 95% confidence intervals. Therefore, the "goodness-of-fit" of this model is good. In addition, Table 4 also provides the Cox and Snell R-square (=0.610) and the Nagelkerke R-square (=0.657) values. However, these two values are sometimes called pseudo-R-square values, which have little significance in logistic regression (different from those in linear regression) and thus are not considered.

Table 4. Goodness-of-fit and pseudo-R-square.

Goodness-of-Fit			Pseudo-R-	Square	
	Chi- Square	df	Significance	Cox and Snell R-Square	Nagelkerke R-Square
Pearson	3241.375	3459	0.996	0.610	0.657

In contrast, the -2 log-likelihood is an important indicator of model evaluation and can be used to evaluate the effect of different models. The smaller the value is, the better

the model is. Table 5 shows that the final model has a -2 log-likelihood decrease of 1096.8 compared with the intercept-only model, indicating that the final model has a good effect. Table 5 exhibits the results of the likelihood ratio test of the model. In this test, the null hypothesis is that all independent variables included in the model have coefficients of zero. In the table, however, p < 0.05, which means that at least one variable coefficient of the model is significantly different from zero. Of the variables introduced, as shown in Table 6, the coefficients of the two independent variables, the standardized scores for Chinese and parental educational expectations, are significantly different from zero (p < 0.05), which suggests that the entire model has statistical significance.

Table 5. Model fitting.

Model Fitting Conditions	Likelihood Ratio Test			
-2 Logarithmic Likelihood	Chi-Square	df	Significance	
3072.240				
1975.440	1096.800	30	0.000	
	Model Fitting Conditions -2 Logarithmic Likelihood 3072.240 1975.440	Model Fitting ConditionsLikeli-2 Logarithmic LikelihoodChi-Square3072.2401096.800	Model Fitting ConditionsLikelihood Rat-2 Logarithmic LikelihoodChi-Squaredf3072.2401096.80030	

Table 6. Likelihood ratio test.

	Model Fitting Conditions	Likelihood Ratio Test		
Effect	-2 Logarithmic Likelihood of the Simplified Model	Chi-Square	df	Significance
Intercept	2050.068	74.628	3	0.000
stdchn	1988.994	13.554	3	0.004
stdmat	1979.902	4.462	3	0.216
stdeng	1977.597	2.157	3	0.541
parexp = 2	2106.630	131.190	3	0.000
parexp = 3	2213.501	238.061	3	0.000
parexp = 4	2197.841	222.401	3	0.000
Schtype = state-run schools	1981.363	5.923	3	0.115
Gender = 1	1983.621	8.181	3	0.042
cog	1983.429	7.989	3	0.046
paredu	1987.266	11.826	3	0.008

# 4.2. Analysis of Model Results

We can find three sets of logistic data in Table 7, each of which was designed for the situation where self-educational expectations consist of a junior college education, bachelor's degree, master's degree, or doctoral degree. "Self-educational expectation = high school degree and below" is the control group, whose coefficients are all 0. Similarly, "gender = 0", "parental educational expectation = 1", "school type = 0", and "parental highest education level = 0" are the control group of variables, whose coefficients are all 0. If the significance level of a variable is <0.05, it could be explained that this variable had a significant impact on the self-educational expectation of migrant children for this type relative to the control group of dependent variables. The  $\beta$  value represents, among other things, the direction of impact, and  $\text{Exp}(\beta)$  denotes the odds ratio. The analysis of the results is shown below.

Do standardized scores for Chinese, math, and English all affect the self-educational expectations of migrant children?

For the standardized scores for Chinese, after controlling for variables, when selfeducational expectations consist of a junior college education, bachelor's degree, or master's or doctoral degree,  $\beta$  values will be 0.006 (p = 0.692), 0.027 (p = 0.079), and 0.064 (p = 0.001), respectively. These results demonstrate that if "self-educational expectation = high school degree and below" is taken as the control group, the standardized scores for Chinese only have a significant positive impact on the self-educational expectation of migrant children for a master's degree or doctoral degree. While keeping other conditions unchanged, for every one unit increase in migrant children's standardized scores for Chinese, the odds ratio of self-educational expectation for a master's degree or doctoral degree is 1.066 times that of the original.

Selneyn		ß	<b>SE</b>	Sig	$Exp(\beta)$	95% CI f	95% CI for Exp(β)	
	Serpexp	Ρ	5E	Sig	Lxp(p)	Min.	Max.	
	cons	-4.679	1.146	0.000				
	stdchn	0.006	0.016	0.692	1.006	0.975	1.039	
	stdmat	0.008	0.017	0.646	1.008	0.975	1.041	
	stdeng	0.026	0.018	0.159	1.026	0.990	1.064	
T	parexp = 2	3.168	0.321	0.000	23.765	12.672	44.571	
Junior college	parexp = 3	1.717	0.335	0.000	5.566	2.887	10.730	
education	parexp = 4	1.606	0.798	0.044	4.983	1.042	23.816	
	Schtype = state-run schools	0.590	0.355	0.097	1.805	0.899	3.623	
	Gender = 1	-0.546	0.259	0.035	0.579	0.349	0.962	
	cog	0.017	0.036	0.629	1.018	0.948	1.092	
	Paredu = 1	0.666	0.284	0.019	1.947	1.115	3.399	
	Cons	-7.203	1.085	0.000				
	Stdchn	0.027	0.015	0.079	1.027	0.997	1.058	
	Stdmat	0.031	0.016	0.048	1.031	1.000	1.063	
	Stdeng	0.016	0.017	0.348	1.016	0.983	1.051	
Bachalor's	parexp = 2	1.445	0.356	0.000	4.243	2.114	8.517	
dogroo	parexp = 3	3.592	0.279	0.000	36.306	20.995	62.785	
uegree	parexp = 4	2.631	0.663	0.000	13.885	3.783	50.964	
	Schtype = state-run schools	0.770	0.323	0.017	2.161	1.148	4.066	
	Gender = 1	-0.578	0.236	0.014	0.561	0.353	0.892	
	cog	0.059	0.032	0.067	1.061	0.996	1.131	
	Paredu = 1	0.784	0.260	0.003	2.191	1.317	3.644	
	cons	-10.395	1.321	0.000				
	stdchn	0.064	0.019	0.001	1.066	1.028	1.106	
	stdmat	0.019	0.018	0.290	1.019	0.984	1.056	
	stdeng	0.021	0.020	0.287	1.021	0.983	1.061	
Master's or doctoral degree	parexp = 2	1.570	0.422	0.000	4.807	2.101	10.995	
	parexp = 3	2.851	0.336	0.000	17.309	8.959	33.440	
	parexp = 4	5.485	0.645	0.000	241.018	68.146	852.429	
	Schtype = state-run schools	0.562	0.368	0.127	1.753	0.852	3.608	
	Gender = 1	-0.265	0.268	0.324	0.768	0.454	1.299	
	cog	0.095	0.037	0.009	1.100	1.024	1.182	
	Paredu = 1	0.924	0.284	0.001	2.518	1.442	4.397	

Table 7. Parameter estimation of the model.

Control group: high school and below.

Similarly, when self-educational expectations consist of a junior college education, bachelor's degree, or master's or doctoral degree, the  $\beta$  values are 0.008 (p = 0.646), 0.031 (p = 0.048), and 0.019 (p = 0.290), respectively. These results demonstrate that if "self-educational expectation = high school degree and below" is taken as the control group, the standardized scores for math only have a significant positive impact on the self-educational expectation of migrant children for a bachelor's degree. While keeping other conditions unchanged, for every one unit increase in migrant children's standardized scores for math, the odds ratio of self-educational expectations for a bachelor's degree is 1.031 times that of the original.

As a result, however, the standardized scores for English were found to have no significant effect on any type of migrant children's self-educational expectations (all *p* values). This result demonstrates that if the "self-educational expectation = high school and below"

is viewed as the control group, the standardized scores for English cannot significantly affect the self-educational expectations of migrant children.

In summary, if "self-educational expectation = high school degree and below" is seen as the control group, the standardized scores for Chinese significantly affect the choice of migrant children for a master's degree or doctoral degree in regard to selfeducational expectation, while standardized math scores significantly affect the choice of migrant children for a bachelor's degree in regard to self-educational expectations. The standardized scores for English cannot, however, significantly affect the choice of self-educational expectations of migrant children. Hypothesis 1 is partially verified.

Does the choice of parental educational expectations for junior college education, bachelor's degree, master's degree or doctoral degree affect their children's self-educational expectations?

Regarding parental educational expectations, we took "parental educational expectation = 1" as the control group. When "parental educational expectation = 2" (junior college education), it has a significant impact on the choice of migrant children for junior college education, bachelor's degree, and master's degree or doctoral degree, indicating that migrant children are more inclined to choose a junior college education, bachelor's degree, master's degree or doctoral degree as self-educational expectations when their parental educational expectation is a junior college education, relative to those whose self-educational expectations are high school degree and below. Among them, the greatest impact ( $\beta$  = 3.168, p = 0.000) on the choice of migrant children for junior college education as a self-educational expectation is seen when the parental educational expectation is a junior college education. While keeping other conditions unchanged, if the parental educational expectation is a junior college education is 23.765 times that of the parental educational expectation of high school and below.

When "parental educational expectation = 3" (bachelor's degree), it has a significant impact on the choice of migrant children for a junior college education, bachelor's degree, and master's degree or doctoral degree as the self-educational expectation. Among them, the greatest impact ( $\beta$  = 3.592, *p* = 0.000) on the choice of migrant children for a bachelor's degree as a self-educational expectation is seen when the parental educational expectation is a bachelor's degree. While keeping other conditions unchanged, if the parental educational expectational expectation is a bachelor's degree is 36.306 times that of the parental educational expectation of high school and below.

Similarly, when "parental educational expectation = 4" (master's degree or doctoral degree), it has a significant impact on the choice of migrant children for junior college education, bachelor's degree, and master's degree or doctoral degree as the self-educational expectation. Among them, the greatest impact ( $\beta$  = 5.485, p = 0.000) on the choice of migrant children for a master's degree or doctoral degree as self-educational expectation is seen when the parental educational expectation is a master's degree or doctoral degree. While keeping other conditions unchanged, if the parental educational expectation is a master's degree or doctoral degree, the probability that their children's self-educational expectation is a master's degree or doctoral degree is 241.018 times that of the parental educational expectational expectation and below.

To our surprise, parental educational expectations for junior college education, bachelor's degree, master's degree, or doctoral degree affect the same choices made by their migrant children. That is, parental educational expectations of a junior college education, bachelor's degree, and master's degree or doctoral degree have the greatest impact on their children's expectations for junior college education, bachelor's degree, master's degree, or doctoral degree, respectively. Hypothesis 2 is thus verified.

Does school type affect the choice of self-educational expectations of migrant children for junior college education, bachelor's degree, master's degree, or doctoral degree?

In terms of school type, we used "self-educational expectation = high school degree and below" as the control group. If the migrant children's school type = 1 (state-run schools), it did not have a significant impact on the self-educational expectations of migrant children for junior college education ( $\beta$  = 0.590, p = 0.097) or master's degree or doctoral degree ( $\beta$  = 0.562, p = 0.127), but it did have a significant positive effect on that for bachelor's degree ( $\beta$  = 0.770, p = 0.017). This means that if we take "self-educational expectation = high school degree and below" as the control group, then the probability rate of self-educational expectations of migrant children studying in state-run schools for a bachelor's degree is 2.161 times that of those studying in nonstate-run schools. Hypothesis 3 is partially verified.

## 5. Discussion

It was found that the standardized scores for Chinese and math had a significant positive impact on the self-educational expectations of migrant children for a doctoral degree or master's degree, and a bachelor's degree, respectively, while the standardized scores for English did not have a significant impact on their self-educational expectations. Our study also explained the significant effect of grades (a variable) on the self-educational expectations of migrant children, which is similar to that found in previous studies [20,28,36]. In turn, self-educational expectations strongly predict scholastic attainment [17], which is consistent with rational choice theory, explaining that students always tend to make rational calculations about the costs, benefits, and probability of success of obtaining a degree, thus choosing their self-educational expectations [14]. The impact of grades on migrant children's self-educational expectations is extremely complicated. On the one hand, grades may be subject to parental educational expectations, which is exemplified by the fact that parental educational expectations, as a moderator, have a significant positive regulating effect on the relationship between self-educational expectations and math grades of Black male students [25]; furthermore, parental educational expectations affect students' math grades by affecting their self-concept [26]. On the other hand, grades may also be affected by the type of schools that migrant children attend [33,37]. The Chinese grades of students at nonstate-run schools are 5.4 scores lower (0.4 SD) than those from students of the same age in state-run schools, and the difference in math grades is eight scores (which is more than half the SD) [38]. Grades of migrant children evidently reflect the comprehensive weighing results of their family background or parents' social influence and educational attainment of schools.

Our study revealed that parental educational expectations have a significant positive impact on migrant children's self-educational expectations, which is consistent with the viewpoints of many scholars [30,31,39–41]. The difference is that this paper further observes whether the learning phases chosen by parental educational expectations affect their children's self-educational expectations. It was found that the higher the parental educational expectations are, the higher the self-educational expectations are of migrant children. Moreover, the parental educational expectations for a junior college education, bachelor's degree, and master's degree or doctoral degree also tend to be consistent with migrant children's choice for junior college education, bachelor's degree, and master's degree or doctoral degree. As revealed by the status attainment theory that students' self-educational expectations are subject to others, these studies have helped to explain the mechanism of action from different perspectives as well. On the one hand, the unique cultural capital of migrant families induces parents' high educational expectations and affects children's self-expectations [7,9,14,32,42,43]. On the other hand, parental educational expectations can materially and emotionally support the improvement of their children's academic grades. If parents have high educational expectations for their children, they will pay more attention to their children's academics to improve their grades, such as enrolling their children in cram schools [44] or psychological care [29]. They may stimulate children's overall academic development through emotional engagement behaviors [45,46]. However, due to the limited level of education, the parents of the accompanying children lack reasonable concern and participation in their children's education [5], as some scholars believe that

parents' high expectations can only stimulate their children's educational ambitions and choices [47] rather than providing any help in their scholastic attainment [42].

In addition to the impact of grades and parental educational expectations, children's school type also affects their self-educational expectations. As proposed by ability-tracking theory, students' track positions in different types of schools can prompt students to meet educational expectations. Students can internalize this prompt into their educational expectations and make them a reality [15], even if the expectations projected are unfounded. Existing results [10,15] have roughly specified that school type has a significant impact on children's self-educational expectations. In contrast, this paper argues that school type does not necessarily have an impact on different types of self-educational expectations of children. Taking "self-educational expectations = high school degree and below" as the control group, this paper further found that school type only has a significant impact on the odds ratio of whether migrant children choose a bachelor's degree as their selfeducational expectations but does not have a significant impact on their self-educational expectations for a junior college education, a master's degree, or doctoral degree. The fundamental reason for this is that high-quality school resources, especially academic support, emotional support, and relationship support given by teachers, have a positive impact on the attainment level of their students [29,48–50]. A typical case is Zhang [51], who also found, by employing CEPS data, that the higher the ratio of teachers with a bachelor's degree in a school is, the higher the students' self-educational expectations are. In conclusion, different types of migrant children's self-educational expectations and their subject grades, the choice of learning phases of parental educational expectations, and the impact of school types on specific learning phases have formed a complex, dynamic and well-connected network.

## 6. Conclusions

After discussing different types of factors that affect the self-educational expectations of China's migrant children, we mainly draw the following conclusions. (1) The standardized scores of Chinese migrant children significantly affect the odds ratio of their self-educational expectations for master's degrees or doctoral degrees, and the standardized scores for math significantly affected the odds ratio of their self-educational expectations for bachelor's degrees. However, the standardized scores for English are not found to have a significant effect on any type of migrant children's self-educational expectations for junior college education, bachelor's degrees, and master's degrees or doctoral degrees. (2) If the parental educational expectations and the self-educational expectations of the migrant children tend to be the same in terms of type of choice, the improvement of the children's self-educational expectations will be seen to be the greatest. From the perspective of the specific learning phases, the higher the parental educational expectations are, the higher the self-educational expectations of migrant children are. (3) School type has a significant positive impact on the self-educational expectations of migrant children for a bachelor's degree. The odds ratio of self-educational expectations of migrant children for a bachelor's degree in state-run schools is 2.161 times those in nonstate-run schools.

A policy reference for optimizing the teaching and management of subjects in schools, for parents to guide the formation of children's self-educational expectations, and local governments to rationally allocate high-quality educational resources and narrow the development gap between state-run schools and nonstate-run schools can be found in this paper. This paper can help the government, schools, society, families, and other related parties work together to solve the problem of educational equality of migrant children.

The following limitations are still objective and worthy of further exploration, although this paper has performed much research on the factors that affect migrant children's selfeducational expectations. (i) Are there any other important variables that have not been identified? (ii) How do we establish causal relationships between predictors and the independent variable since this cross-sectional study reveals a correlation rather than causality? (iii) From different perspectives of individual, family, and school, do the multiple actions of politics, economy, cultural capital, and public policy behind migrant children's educational equity have a profound impact on self-educational expectations?

Author Contributions: Conceptualization, H.G. and J.W.; Data curation, Z.C.; Funding acquisition, J.W.; Investigation, H.G. and Z.C.; Methodology, H.G. and Z.C.; Project administration, H.G.; Resources, H.G. and Z.C.; Supervision, H.G. and J.W.; Validation, Z.C.; Visualization, H.G. and Z.C.; Writing—original draft, H.G. and Z.C.; Writing—review & editing, H.G. and J.W. All authors have read and agreed to the published version of the manuscript.

**Funding:** This research was funded by The General Office of National Language Commission Research Planning Committee, grant number ZDA135-11.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: Not applicable.

Conflicts of Interest: The authors declare no conflict of interest.

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