The Associated Factors with Chinese Secondary Students' Educational Expectation: An Explorative Study Based on CEPS (2013–2014)

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Abstract. Using data from the China Education Panel Survey (CEPS) during the 2013–2014 academic year, this study investigates personal and family-related factors that influence educational expectations. Multiple regression analysis was used to analyze the data in this study. The study found that students' educational expectations various in gender and students' grades, positive attitudes, parents' educational level, teacher encouragement, students' positive experiences, family income have significant influences in the educational expectations. However, students' negative experiences and parental employment have no significant influences on students' educational expectations. Limitations also reported in the last section of the paper.

Keywords: students' educational expectation · China Education Panel Survey (CEPS) · students related factors · family related factors · explorative study

1 Introduction

Parental educational expectation refers to parents' expectation and desire that parents have for their children's education [12], whereas students' self-education expectation is the educational expectation and want that students have for their own education. Chinese parents place a premium on their children's education and expect their children to achieve outstanding academic success. On the one hand, the success of children's education can "honor the family"; On the other hand, education is an essential means of achieving social mobility [7]. In recent years, students' educational expectations have become a concern among scholars. For junior middle school pupils in the nine-year compulsory education stage, the expectation of the future education level or completed schooling years have a direct effect on their academic performance [13]. Changing educational expectation is the result of internal and external factors such as negative emotions and teacher's encouragement. The research on the overall situation of the self-education expectation of middle school students and the analysis of influencing factors not only has a certain reference function for the formulation of education macro policy, but also has a positive practical implications for how to help middle school students to set up a

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good education expectation [11]. Based on the above considerations, this study uses the data of China Education Panel Survey (CEPS, 2013–2014) to further investigate what factors will influence students' educational expectations.

2 Literature Review

2.1 Students Related Factors and Educational Expectation

2.1.1 Gender and Educational Expectations

Studies show that gender inequalities in expectations for higher education expectations have also reversed: in the 1950s, American male high school students had much higher education expectations for higher education than female students. In the early 1980s, however, the bachelor's degrees aspirations of white female high-school students overlook those of male students. Recent studies have even found that female students' expectation of higher education is significantly higher than that of male students even if family background, ethnicity and other social structure factors are controlled. Inspired by these findings, Chinese researchers try to duplicate these findings that female students have larger expectations for higher education than male students, several results show that girls are more likely than boys to pursue higher education, and their parents are more likely to expect girls to pursue higher education. This is primarily due to two factors: first, girls' academic performance is higher than that of boys, so they have higher confidence and expectations for higher education; and second, girls interact with their families more than boys do, so they are more aware of their parents' expectations for their education [6].

However, other scholars assert that there are gender and urban-rural differences in students' educational expectations can be explained by other factors. Girls' educational expectations are higher than boys', but when students' academic performance, school grade and class grade are included, the gender differences in educational expectations are reversed [8].

2.1.2 School Life and Education Expectations

Sociologist Wilson published social Class residential Segregation and Middle School students in 1959. Wilson introduces the topic of whether and how schools influence students' educational expectations. Wilson demonstrates the existence of school contextual effects in which the composition of a school (mostly working-class or middle-class families) has a large beneficial effect on an individual's educational expectations, even after adjusting for the individual's class background. He says that the school's stratification reflects the majority's normative value within the school, so creating moral pressures that can directly influence the attitudes and actions of individuals.

Children and adolescents spend the most of their school day in class or with their peers. Class is the most important organizational unit and learning community for kids in school, which can be viewed as an important organizational setting and impact channel for schools. Studies have demonstrated that the impact of classes is not primarily due to the distribution of resources, but rather to the interaction between professors and

students and the resulting positive classroom environment. To increase students' expectations of self-education, schools should focus on teacher training, improve communication between teachers and students, and promote encouraging teaching and educational conduct [14].

Some studies have revealed that class environment has a substantial impact on students' education, and that school resources and student sources, particularly the head teacher, are crucial elements influencing class environment. At the school level, the greater the per-student financial allocation, the higher the ranking of the school district and county, and the better the class environment; at the class level, the smaller the class size and the higher the average socioeconomic status, the better the class environment. In addition, the gender, educational background, and age of the teacher will have an impact on the classroom environment. Comparatively to male students with less than a bachelor's degree and less than ten years of teaching experience, the class environment is better when the class director is a female student with a bachelor's degree or above and more than ten years of teaching experience [5].

2.1.3 Grades and Educational Expectations

There is a favorable correlation between academic success and educational anticipation. The higher pupils' educational expectations, the better their academic performance [11].

Few publications focus on students' psychological aspects and their perceptions of factors that can influence their educational expectations. This article will therefore examine the impact of gender, family economic conditions, parental motivation, grades, and school life on students' and parents' educational expectations. The association between students' self-perceived academic resilience, negative emotions, and their perceptions of the curriculum and educational expectations will also be investigated. Students' views and experiences, as well as their parents' educational level, have a significant impact on their educational expectations.

2.2 Family Related Factors and Educational Expectation

2.2.1 Family Economic Conditions and Educational Expectations

Chinese parents are placing a great emphasis on the education of their children, which may cause an increase in educational anxiety [15]. In order to send their children to college, parents are paying a premium for dwelling in school districts and enrolling in extracurricular activities. Some research findings indicate that the expansion of income disparity will dramatically raise parents' expectations for their children's education, particularly for their undergraduate and graduate degrees. This effect of wealth disparity on parental educational expectations is most prevalent in locations with high educational returns and unequal distribution of educational possibilities, as well as in areas with just one kid, urban areas, party members, and high-income families. The mechanism analysis demonstrates that income inequality will enhance parental material desires, hence elevating parental educational expectations for their children [15].

In his research of educational reproduction, Bourdieu proposed that educational expectation is founded on class self-selection [10]. This view has been verified by many empirical studies such as Wisconsin School, that is, the higher the socioeconomic status

of the family (including parents' education level, occupation, income, etc.), the higher the educational expectation of children [9]. Higher socioeconomic level groups have more economic and cultural capital that assists youngsters in achieving academic success, whereas lower socioeconomic status groups do not have this capital. In this sense, the socioeconomic standing of the family is the material basis for disparities in educational expectations between students from different family origins. Some research have demonstrated that the disparity in educational expectations between urban and rural areas is mostly attributable to the social and economic differences between urban and rural families [2, 3].

The higher the socioeconomic standing of the family, the greater the frequency with which parents speak with their children, which in turn contributes to improved academic performance among students. Consistent with earlier research, middle class households have higher parent-child contact. Parents frequently read and relate stories to their children, and family talks are more frequent and last longer. In families with a low socioeconomic class, however, it is difficult for parents to communicate effectively with their children because they are preoccupied with their jobs or lack the skills or understanding to speak with their children, resulting in less parent-child engagement. Parent-child interaction and communication can effectively enhance students' cognitive resources, contribute to the management and guidance of students' behavior, foster the development of the parent-child relationship, and bring the home-school learning environment closer together, thereby providing an essential foundation for the development of students' cognitive skills. The higher the socioeconomic standing of the family, the greater the expectation of parental education and the greater the expectation of students' self-education, which contributes to the improvement of students' academic performance [1].

2.2.2 Parents Supervision on Studying and Educational Expectations

Some studies have found that parental supervision of their children's study is positively correlated with their academic performance, whereas other studies have found that parental encouragement of their children to study has a significant negative effect on their academic performance, particularly for adolescents in junior middle school. They are now adolescents and demonstrate a strong desire for autonomy. And parental surveillance can induce a feeling of control in youngsters, which can dampen pupils' motivation and hinder their academic achievement [1].

3 Methodology

The data of China Education Panel Survey (CEPS), designed and organized by China Survey and Data Center, Renmin University of China, are used in this paper. The survey took the school year 2013–2014 as the baseline, junior high school students in grade 7 as the starting point, and the average education level of the population and the proportion of floating population as stratified variables. The questionnaire survey was conducted in 438 classes of 112 schools in 28 county-level units across the country. The subjects included all students and their parents, homeroom teachers, old teachers and school

principals. The content of the questionnaire mainly includes the basic information of the respondents, school education and family education. A total of 19,487 student samples were obtained in this investigation. Due to the existence of missing values, a total of 18,000 valid samples were finally entered into the analysis model of this study.

The dependent variable of this paper is family education expectation, including parents' educational expectation of their children and children's own educational expectation. The author believes that academic expectation can better reflect the long-term development of individuals than the expectation of current academic achievement. The two types of educational expectations are measured by "what are your parents' educational expectations of you" and "what degree do you expect yourself to read" in the questionnaire of CEPS students, and the education degree is re-coded into years of education: "Now, do not have to read" = 6, "junior high school graduation" = 9, "technical secondary school/technical school" = "10", "vocational high school" = 11, "ordinary high school" = 12, "college" = 15, "bachelor" = 16, "graduate student" = 19, "doctor" = 23.

The core independent variables of this study were gender, family economic conditions, academic resilience, negative emotions, parents supervision on studying, grades, views on curriculum and school life.

(1) Gender. I took the respondents' choice of their own gender.
(2) Family economic conditions. The students' answers to the questionnaire "what is your family's economic condition before entering primary school" and "what is your family's economic condition now" were used. For the first question, there are six options: "Very difficult", "relatively difficult", "medium", "better than rich", "very rich" and "unclear". The value ranges from 1 to 6. For the second question, there are five options: "Very difficult", "relatively difficult", "medium", "better off" and "very rich". The value ranges from 1 to 5. The higher the value is, the better the family's financial situation is.
(3) Academic resilience. The questionnaire provides seven descriptions of themselves recalled in grade six, including "totally disagree", "disagree", "agree" and "totally agree", with the value ranging from 1 to 4.
(4) Negative emotions. The participants were asked to choose their psychological status in the past seven days. Their psychological status was depression, depression, unhappiness, boring life and sadness, with five choices ranging from "never", "rarely", "sometimes", "often" and "always", with the value ranging from 1 to 5.
(5) Parents urge students to study. The questionnaire asked respondents in the last week whether their parents had pushed them to study. Check your homework and know your homework. There are four choices: "never", "one or two days", "three or four days" and "almost every day". The value is 1–4.
(6) Achievements. The questionnaire uses the respondents' own evaluation of their current performance. The value ranges from 1 to 5. The options are not good, below medium, above medium, and very good. The higher the value, the better the academic performance.
(7) Views on the course. Respondents choose their opinions on the main course according to nine questions, and there are four options: "Completely disagree", "somewhat

disagree", "somewhat agree" and "completely agree", with the value ranging from 1 to 4. 8. School life. The questionnaire asked respondents about their views on school life, with 12 statements. The value ranges from 1 to 4. The options are Completely Agree, Disagree, Agree, and Completely Agree.

Control variables were age, household registration, mother's education, father's education and parents' employment.

4 Results

Mean, standard deviation, skewness and kurtosis of all the study variables are shown in Table 1.

The mean of all the study variables is ranged from 1.429 to 13.612. The standard deviation of the variables is ranged from 0.449 to 3.144. Absolute value of skewness and kurtosis are required to be smaller than 3 so the values can satisfy conditions. From Table 1, there are three numbers according with the principle and they are the kurtosis of family income, academic resilience and negative experience. Although these values are larger than three, they are still acceptable because they do not outweigh too much.

The gap in educational expectations between male and female students is shown in Table 2. Male and female sample sizes are 9718 and 9228, respectively. The average educational expectation of female students (13860) is higher than that of male students (13840), according to the gender distribution of pupils (13400). However, the standard deviation of males' educational expectations is bigger than that of females, indicating that the gap between boys' and girls' educational expectations is greater.

Furthermore, Table 2 reports the test statistic was significant at the 0.01 level of significance ($F = 2296.299$; $p < 0.1$). This suggests that there is a huge difference between boys' and girls' educational expectations and the differences cannot be ignored.

Table 3 reports the standardized regression coefficients of all variables on students' educational expectation. Beta indicates the contribution of every independent variable in forecasting the dependent variable. The results revealed that fathers' education was statistically significant predictor of students' educational expectations ($t = 14.199$, Beta $= 0.131$; $p < 0.1$). Also, the mothers' education was statistically significant ($t = 11.578$, Beta $= 0.108$; $p < 0.1$). Positive attitude ($t = 13.037$, Beta $= 0.099$; $p < 0.1$), academic resilience ($t = 10.282$, Beta $= 0.074$; $p < 0.1$), gender ($t = 7.008$, Beta $= 0.048$; $p < 0.1$),positive experience ($t = 7.342$, Beta $= 0.057$; $p < 0.1$), teacher encouragement ($t = 4.767$, Beta $= 0.038$; $p < 0.1$), family income ($t = 1.652$, Beta $= 0.011$; $p < 0.099$), mother's job ($t = -0.418$, Beta $= -0.003$; $p < 0.676$), father's job ($t = -4.347$, Beta $= -0.035$; $p < 0.1$) and negative experience ($t = -10.051$, Beta $= -0.071$; $p < 0.1$) are predictors of students' educational expectations. These suggested that students' educational expectation of father's education and mother's education were significant predictor of students' educational expectations.

The association between the dependent variable and independent variables (R), the proportion of the dependent variable's variance (educational expectations), which is accounted by the linear combination of the independent variables (R2), and the population R2 that can be used to generalize the findings from the sample (Adjusted R2) were

Table 1. Descriptive statistics

Variables	Sample size	Min	Max	Mean	Standard deviation	Skewness	Kurtosis
Family income	19264	1	6	3.11	0.937	1.472	3.672
Mothers' education	19129	1	9	3.80	1.966	0.921	−0.298
Fathers' education	19093	1	9	4.17	1.984	0.774	−0.712
Fathers' education	18954	1	10	6.46	2.248	−0.710	−0.153
Mothers' education	18951	1	10	5.74	2.418	−0.265	−0.910
Education expectation	19206	1	20	13.612	3.114	−0.696	0.636
Academic resilience	18270	1	4	3.216	0.534	−1.338	3.044
Positive attitude	19271	1	4	3.262	0.681	−0.949	0.922
Teacher encouragement	19083	1	4	2.562	0.740	−0.033	−0.374
Negative experience	18993	1	4	1.429	0.449	1.614	3.766
Positive experience	18756	1	4	2.930	0.640	−0.547	0.160

Table 2. T-test between male and female students on educational expectation

Gender	Sample size	Mean	Standard deviation	F-value	P-value
Male	9718	13.400	3.328	296.299	***
Female	9228	13.860	2.839		

extracted. The results revealed that 12.6% of the variance in educational expectations was explained by the independent variables.

5 Discussions

The results of this study contributed in various ways to the educational expectation. Firstly, the hypothesis that training having a statistically significant effect on students' educational expectation, thereby validating the hypothesis. The research on gender in this paper is consistent with Liu's research results [6]. The educational expectation of girls is quite different from that of boys, and the expectation of girls is higher than that of

Table 3. Multiple regression results

Independent variables	Coefficient	Standard error	Standardized Coefficient	t	P-value
Academic resilience	0.445	0.043	0.074	10.282	***
Positive attitude	0.453	0.035	0.099	13.037	***
Teacher encouragement	0.161	0.034	0.038	4.767	***
Negative experience	−0.492	0.049	−0.071	−10.051	***
Positive experience	0.283	0.039	0.057	7.342	***
Mothers' education	0.172	0.015	0.108	11.578	***
Fathers' education	0.206	0.015	0.131	14.199	***
Mother's job	−0.005	0.011	−0.003	−0.418	0.676
Fathers' job	−0.046	0.011	−0.035	−4.347	***
Family income	0.037	0.023	0.011	1.652	0.099
Gender	0.296	0.042	0.048	7.008	***

boys. Students' scores also greatly affect students' self-education expectations, which is consistent with the findings of Wei Yong et al. [11]. Positive interaction between teachers and students, such as encouragement, also has an impact on students' educational expectations, which is consistent with the findings of Zhang Yangyang et al. [14]. Parents' education and jobs are included in family background. The family backgrounds have a very important effect on the formation of education expectations, which is that children born in a good family background tend to have better education expectations, and that the education expectations of children born to a poor family background are often lower [4]. However, in this research, the work of parents has negative experience with students' education expectations. In addition to parents' jobs, students' negative experiences at school were negatively correlated with educational expectations. This finding is also same from previous studies. For those who fall behind in a certain stage, it is difficult for them to establish confidence in learning. So their educational expectations will be lower [8].

6 Conclusions

Through the analysis of national survey data, this study found that: grades, gender, students' positive experience and attitude in school, teachers' encouragement, parents' educational level and family economic conditions have a positive relationship with students' educational expectations. However, students' negative experiences in school and

parents' jobs have a negative relationship with students' educational expectations. The author believes that the reasons for these results may be as follows:

(1) The higher the students' scores, the higher their expectations of their education. These students are very confident in their grades and abilities, and are very demanding of themselves. They are eager to gain recognition and access to higher education through excellent academic performance. Through these to improve their own and play their value to the society.
(2) Girls' educational expectations are much higher than boys. This is a reason that has been mentioned. With the popularization of the consciousness of men and women, the education is moving into the main body of the high education, the expectation of the parents' education is no longer the boy's tendency, but the girl's academic performance is better and the education is more confident and expected [6].
(3) Students' positive experiences and attitudes in school. The students have more positive experience and attitudes, their educational expectations will increase. They are very confident about their ability to learn. They remain eager and exploring new knowledge. They also hope to gain higher access to education through efforts.
(4) The more teachers encourage students, the higher students' educational expectations will be. Through a large number of teachers' praise and encouragement, students can meet the performance desire in the teenage years. Students can feel the teacher's hope for them. In order not to disappoint teachers, students set high educational expectations and get more encouragement from teachers.
(5) Higher educational level of parents and better family economic conditions will improve students' educational expectations. Parents enjoy the positive influence of higher education, so they also hope their children can continue to get the opportunity of higher education. Better family economic conditions mean that parents can spend more time with their children. The interaction between students and their parents will be enhanced, and students will more easily feel their parents' high expectations for their education.
(6) Negative experiences increase cause a reduction in educational expectation. Through the Chinese Education Panel Survey's questionnaire, the students who had negative experiences at school were most of the students who lost their confidence in their studies. They think they have lost enthusiasm for learning new and have lagged behind others in certain learning stages. This leads them to have a low awareness of their education expectations.
(7) The better a parent's job, the lower a student's educational expectations. For example, some parents are the leaders and staff of the national institution. The education expectations of such students will be slightly lower. The authors speculate that the reason for this phenomenon may be that these students can rely on their parents even if they don't go to a good university. These students' parents can make their children enjoy a good life with their power. But the children of parents who have regular work are trying to get ahead, and they can only rely on education. So they set up higher education expectations to get better living conditions.

Although there are many factors influencing students' educational expectations, the opportunities for higher education are limited as China's population continues to grow.

The phenomenon of "inner examination" among students is increasing day by day, and students' educational expectation is on the rise. Teachers and parents should choose the right education methods to help students continue to raise their educational expectations and set higher educational goals and ideals, not just for the sake of getting into a good university.

Limitations

This study mainly studies factors affecting student education expectations. There are still some shortcomings.

The China Education Panel Survey is mainly for students in 2013–2014. But now it's 2022, so the results of the questionnaire may not be in line with the current reality. This will lead to a slight deviation from the actual situation.

The literature on students learning school and the view of school life is limited. This led to the study of the reason for this, and there was no reliable evidence to support it.

There are many factors affecting students' expectations of education. This study only enumerates several of the many factors. If time permits, this study will study more why education expectations are affected.

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