Research on the Impact of Family Capital on High School Students' Access to Extracurricular Educational Resources

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Abstract

This article provides an in-depth analysis of how family capital—economic, cultural, and social—affects high school students' access to extracurricular educational resources in China. Drawing on Bourdieu's capital theory and Coleman's social capital theory, we employed a quantitative survey to analyze the interplay between family background and educational inequality. Findings reveal significant disparities in resource access based on family capital, with implications for policy interventions aimed at promoting educational equity.

Keywords: Family Capital； High School Student; Extracurricular Educational Resources; Educational Equality

1. Introduction

The report of the 19th National Congress of the Communist Party of China pointed out that "education must be given priority", and "education equity" has thus become an important part of "fully implementing the Party's education policy"[1]. This fully demonstrates the firm determination of the Chinese government to "strive to ensure that every child has access to fair and quality education" (Anon., 2017) [1]. However, due to the current insufficient and unbalanced development of education in China, there are obvious differences in educational opportunities available to children from different families.

In recent years, with the intensification of educational competition, investment in extracurricular educational resources has gradually become a crucial strategy for families seeking to gain an advantage. As a key factor influencing the acquisition of these resources, the mechanism and specific manifestations of family capital have consequently become a focus of academic attention. In this study, "extracurricular educational resources" is operationalized as students' participation in and investment towards a range of activities beyond the formal school curriculum, primarily measured by the time and frequency of participation in after-school tutoring, study tours, and visits to public educational venues such as science museums, museums, and libraries. Grounded in Bourdieu's capital theory, this paper empirically investigates the influence and interaction effects of family economic, cultural, and social capital on high school students' access to these defined resources.

2. Research Objectives

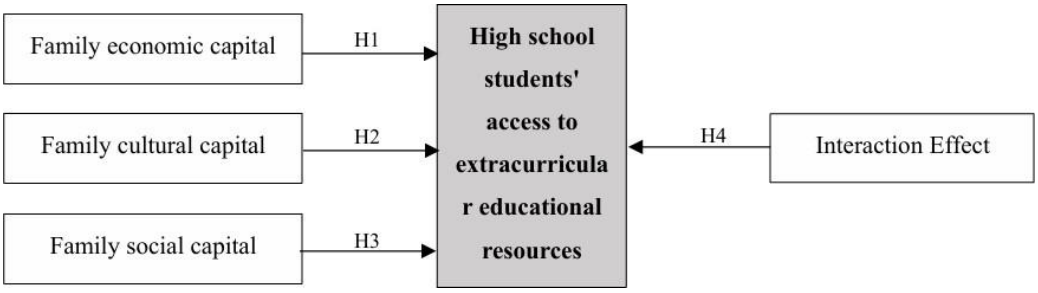
This study enriches Bourdieu's application of capital theory through empirical analysis of the impact of family capital on the acquisition of extracurricular educational resources, especially in specific research in the field of education. Meanwhile, this study can reveal the mechanism of family capital in educational inequality and provide a new perspective for understanding the structural factors of educational opportunity distribution. The research findings help policymakers and educational administrators better understand the impact of family capital on educational equity, thereby formulating targeted policies, such as optimizing the allocation of educational resources, to alleviate the inequality of educational opportunities caused by differences in family capital.

3. Literature Review

Family capital, a key factor in students' educational trajectories, has been widely studied in relation to high school students' access to extracurricular resources. Research spans three main dimensions, with notable findings and limitations.

Economic capital consistently shows positive effects. Claudia et al. (2010) found U.S. family income significantly boosts high school students' after-school tutoring participation [2]. Similar patterns emerge globally. Li and Huang (2023) linked

family income to high school access [3]. Shen and Zhang (2005) found higher-income families more likely to secure "211"



university spots [4]. Liu and Zhou (2024) observed income-based gaps in organized activity participation [5], while Xue and Tang (2023) explored the changes in the expenditure structure of family education after the "Double Reduction" policy and analyzes that family capital continuously influences educational investment [6]. However, the research of Zhang and Chen (2025) found that with the development of online educational resources, the impact of family economic capital on children's access to educational resources has decreased [7].

Cultural capital research yields mixed results. Zhu et al. (2022) [8] and Woessmann (2010) [9] linked parental education to better educational outcomes, with Liu and Zhou [6] noting more tutoring participation and spending among children of educated parents. Zhang et al. (2024) found cultural capital correlates with Chinese students' participation in extracurricular activities [10]. However, Katsillis et al. (1990) [11] found no significant links between cultural capital and academic achievement in specific contexts.

Social capital influences educational quality. Wang and Song (2023) [12] noted higher social class provides advantageous resources. Xue et al. (2023) [13] and Zhang et al. (2024) [10] linked parental social status to educational attainment. Liu et al. (2023) specified that shadow education is closely related to social reproduction. Families with abundant social capital are more willing to have their children participate in after-school education [14].

4. Methodology

To understand the influence of family capital on high school students' access to extracurricular educational resources, a survey-based study design methodology was used and responses from 363 respondents were obtained through quantitative techniques. This study will investigate the independent and interactive effects of various elements of family capital on the acquisition of extracurricular educational resources through descriptive analysis, difference analysis and regression coefficient analysis of the data. In this study, access to extracurricular educational resources refers to participation in after-school tutoring and expenditure on extracurricular training fees, etc.

In this study, structural equation modeling was used to analyze raw data collected through a well-structured questionnaire. The specific research hypotheses are presented in Table 1.

Table 1 Research Hypotheses

Hypothesis 1 - Family economic capital has a significant positive impact on high school students' access to extracurricular educational resources.

Hypothesis 2 - Family cultural capital has a significant positive impact on high school students' access to extracurricular educational resources.

Hypothesis 3 - Family social capital has a significant positive impact on high school students' access to extracurricular educational resources.

Hypothesis 4 - Family economic capital, family cultural capital, and family social capital have a synergistic effect, jointly promoting high school students' access to extracurricular educational resources.

5. Sample and Data Gathering

The ultimate version of the questionnaire was employed to test hypotheses among high school students in different regions of China, across different grade levels, and from different types of schools (key high schools, ordinary high schools, or international high schools).

In order to achieve the current research objectives, the target population was identified as all those high school students associated with the extracurricular educational resources. In this study, the method of online survey was adopted by means of a pre-defined closed structured questionnaire. The online survey link was posted through social media, including WeChat, Red Note and TikTok.

6. Result

Prior to commencing data analysis, a comprehensive data screening process was implemented. The data was examined to identify any potential statistical errors related to outliers, normality, multicollinearity, missing values, and demographic traits. No particular values were detected to be beyond the acceptable range. Through a survey of 363 high school students, comprehensive data on their family capital and extracurricular educational resource acquisition were collected and analyzed using descriptive statistics, chi - square analysis, and ordinal logistic regression.

7. Descriptive Statistics

7.1 Basic Information

Table 2 Demographic Characteristics of the Sample (N=363)

Designation	Option	Frequency	Percentage (%)	Cumulative percentage (%)
Your gender:	Male	126	34.71	34.71
	Female	237	65.29	100.00
Your grade:	Senior One	73	20.11	20.11
	Senior Two	61	16.80	36.91
	Senior Three	229	63.09	100.00
Type of high school you are in:	Key	154	42.42	42.42
	Regular	191	52.62	95.04
	International	18	4.96	100.00
Total		363	100.0	100.0

The basic demographic information of the 363 valid respondents is shown in Table 2. In the sample, 65.29% were female students, 63.09% were senior three students, and the majority were from public schools.

7.2 Family Capital Situation

7.2.1 Economic capital

Table 3 Family Economic Capital Distribution

Designation	Option (yuan)	Frequency	Percentage (%)	Cumulative Percentage (%)
Your family's monthly income is approximately:	Under 5000	166	45.73	45.73
	5000-10000	127	34.99	80.72
	10000-20000	40	11.02	91.74
	More than 20000	30	8.26	100.00

Table 3 Family Economic Capital Distribution

Designation	Option (yuan)	Frequency	Percentage (%)	Cumulative Percentage (%)
The monthly expenditure of a family on extracurricular education (such as tutorial classes, interest classes, etc.) is approximately:	Under 500	159	43.80	43.80
	500-1000	94	25.90	69.70
	1000-2000	59	16.25	85.95
	More than 2000	51	14.05	100.00
Total		363	100.0	100.0

The economic capital status of the sample families, including monthly income and extracurricular education expenditure, is summarized in Table 3. The distribution of after-school education expenditure reveals that 43.80% (159 households) spend less than 500 yuan per month, while only 14.05% (51 households) spend over 2000 yuan. This indicates that the majority of families have relatively limited investment in after-school education, and economic capital may pose certain constraints on the acquisition of after-school educational resources. High-income families have a higher proportion of expenditure on extracurricular education, suggesting a positive correlation between economic capital and investment in extracurricular education.

7.2.2 Cultural Capital

Table 4 Family Cultural Capital Indicators

Designation	Option	Frequency	Percentage (%)	Cumulative Percentage (%)
Your father's highest educational attainment:	Junior high school and below	151	41.60	41.60
	Senior high school / secondary vocational school	91	25.07	66.67
	Undergraduate/College Diploma	89	24.52	91.18
	Master's degree or above	32	8.82	100.00
Your mother's highest educational attainment:	Junior high school and below	156	42.98	42.98
	Senior high school / secondary vocational school	95	26.17	69.15
	Undergraduate/College Diploma	87	23.97	93.11
	Master's degree or above	25	6.89	100.00
The approximate number of books in your home is:	Less than 50	172	47.38	47.38
	50-100	102	28.10	75.48
	100-200	44	12.12	87.60
	More than 200	45	12.40	100.00
Do your parents often discuss your studies or future plans with you?	Never	37	10.19	10.19
	Occasionally (once every few months)	163	44.90	55.10
	Frequently (once or twice a month)	116	31.96	87.05
	Always (every week)	47	12.95	100.00

Table 4 Family Cultural Capital Indicators

Designation	Option	Frequency	Percentage (%)	Cumulative Percentage (%)
Do your parents regularly (at least once a month) discuss topics related to culture, art, science, etc. with you?	Frequently (every week)	94	25.90	25.90
	Sometimes (1 to 2 times a month)	139	38.29	64.19
	Rarely (once every few months)	81	22.31	86.50
	Hardly any	49	13.50	100.00
Total		363	100.0	100.0

The cultural capital characteristics of the families, including parental education, number of books at home, and frequency of cultural discussions, are presented in Table 4. In terms of cultural capital, the educational attainment of parents shows that the overall level of cultural capital in the sample families is relatively low, which may affect students' access to high-quality educational resources. The number of books at home further reflects the status of cultural capital. 47.38% of the families have less than 50 books, and only 12.40% have more than 200 books, indicating that the cultural resources of most families are limited.

The frequency of discussions on cultural, artistic and scientific topics between parents and students shows that 38.29% of people have such conversations "sometimes" (1-2 times a month), and 25.90% have them "frequently" (every week). This indicates that some families are quite active in creating a cultural atmosphere, but still 13.50% of the families hardly ever discuss such topics.

7.2.3 Social Capital

Table 5 Family Social Capital Characteristics

Designation	Option	Frequency	Percentage (%)	Cumulative Percentage (%)
Your father's occupation type:	Civil servants / Public institutions	69	19.01	19.01
	Corporate staff / Managers	45	12.40	31.40
	Freelancing / Self-employment	100	27.55	58.95
	Worker/Farmer	143	39.39	98.35
	Else	6	1.65	100.00
Your mother's occupation type:	Civil servants / Public institutions	78	21.49	21.49
	Corporate staff / Managers	41	11.29	32.78
	Freelancing / Self-employment	102	28.10	60.88
	Worker/Farmer	137	37.74	98.62
	Else	5	1.38	100.00
Do your parents actively participate in school activities (such as parent-teacher meetings, volunteer activities, etc.)?	Never	44	12.12	12.12
	Occasionally	197	54.27	66.39
	Frequently	122	33.61	100.00
Can your parents or immediate family members provide you with academic-related networking resources (such as helping to contact internships, competition guidance, etc.)?	Yes, it's a lot of help	60	16.53	16.53
	Yes, it can be of some help	154	42.42	58.95

Table 5 Family Social Capital Characteristics

Designation	Option	Frequency	Percentage (%)	Cumulative Percentage (%)
Are there any of your parents or direct relatives working in the education industry (such as teachers, educational administrators, etc.)?	Yes, but rarely helps	62	17.08	76.03
	No	87	23.97	100.00
	Yes, more than 1	78	21.49	21.49
	Yes，1	91	25.07	46.56
	None	194	53.44	100.00
Total		363	100.0	100.0

The social capital indicators, including parental occupation, school participation, and educational network resources, are displayed in Table 5. In terms of social capital, the occupational types of parents show that the level of social capital of the sample families is rather ordinary, which may limit the opportunities for students to obtain academic resources through family connections.

Regarding academic-related social resources, the data indicates significant differences in the role of social capital in academic support. The distribution of education industry practitioners shows that 53.44% of the families have no education industry practitioners, while 21.49% have multiple practitioners, suggesting an uneven distribution of education-related social capital.

III. Acquisition of Extracurricular Educational Resources

Table 6 Acquisition of Extracurricular Educational Resources

Designation	Option	Frequency	Percentage (%)	Cumulative Percentage (%)
The average time you spend on extracurricular education each week is approximately:	Less than 5 hours	218	60.06	60.06
	5-10 hours	93	25.62	85.67
	10-15 hours	28	7.71	93.39
	More than 15 hours	24	6.61	100.00
Have you ever participated in study tours or social practice activities (such as community service, enterprise visits, etc.)?	three or more times a year	73	20.11	20.11
	1 to 2 times a year	104	28.65	48.76
	very rarely (once every few years)	108	29.75	78.51
	Never participated	78	21.49	100.00
Have you ever gone to places like science and technology museums, museums, libraries, etc. for extracurricular learning?	Frequently visit (at least twice a month)	75	20.66	20.66
	Sometimes I go (once a month)	127	34.99	55.65
	Rarely go (once every few months)	109	30.03	85.67
	Hardly ever been there	52	14.33	100.00
Total		363	100.0	100.0

The patterns of extracurricular educational resource acquisition, including time investment and participation in various activities, are shown in Table 6. The acquisition of extracurricular educational resources shows that the majority of students have a relatively low participation in extracurricular education, which may be related to family economic conditions or time constraints. The participation in study tours or social practice activities shows that 29.75% have only "participated very rarely" (once every few years), and 21.49% have never participated, reflecting the insufficiency of students in obtaining practical resources.

Among the frequencies of visits to places such as science and technology museums, museums, the data indicates that students have limited access to public cultural resources. Regarding the influence of family economic, cultural, and social capital on the acquisition of extracurricular educational resources, the data shows that students generally recognize the significant impact of family capital on the acquisition of extracurricular educational resources.

8. Variation Analysis

Table 7 Chi-square Analysis of Family Capital and Extracurricular Education Time

Question	Description	The average time you spend on after-school education each week is approximately (%)				Total	$\chi 2$	p
		Less than 5 hours	5-10 hours	10-15 hours	More than 15 hours			
Your family's monthly income is approximately:	Under 5000 yuan	130(59.63)	25(26.88)	8(28.57)	3(12.50)	166(45.73)	109.286	0.000**
	5000-10000 yuan	70(32.11)	43(46.24)	8(28.57)	6(25.00)	127(34.99)		
	10000-20000 yuan	11(5.05)	19(20.43)	7(25.00)	3(12.50)	40(11.02)		
	More than 20000 yuan	7(3.21)	6(6.45)	5(17.86)	12(50.00)	30(8.26)		
Total		218	93	28	24	363		
The monthly expenditure of a family on extracurricular education (such as tutorial classes, interest classes, etc.) is approximately:	Under 500 yuan	127(58.26)	20(21.51)	9(32.14)	3(12.50)	159(43.80)	94.287	0.000**
	500-1000 yuan	48(22.02)	37(39.78)	5(17.86)	4(16.67)	94(25.90)		
	1000-2000 yuan	26(11.93)	23(24.73)	8(28.57)	2(8.33)	59(16.25)		
	More than 2000 yuan	17(7.80)	13(13.98)	6(21.43)	15(62.50)	51(14.05)		
Total		218	93	28	24	363		
Your father's highest educational attainment:	Junior high school or below	110(50.46)	32(34.41)	5(17.86)	4(16.67)	151(41.60)	90.782	0.000**
	Senior high school/technical secondary school	55(25.23)	29(31.18)	6(21.43)	1(4.17)	91(25.07)		
	Bachelor's degree/associate degree	46(21.10)	23(24.73)	14(50.00)	6(25.00)	89(24.52)		
	Master's degree or above	7(3.21)	9(9.68)	3(10.71)	13(54.17)	32(8.82)		
Total		218	93	28	24	363		
Your mother's highest educational attainment:	Junior high school and below	112(51.38)	34(36.56)	7(25.00)	3(12.50)	156(42.98)	90.944	0.000**
	Senior high school / Technical secondary school	54(24.77)	28(30.11)	11(39.29)	2(8.33)	95(26.17)		
	Bachelor's degree/Junior college	46(21.10)	27(29.03)	7(25.00)	7(29.17)	87(23.97)		
	Master's degree or above	6(2.75)	4(4.30)	3(10.71)	12(50.00)	25(6.89)		
Total		218	93	28	24	363		
The approximate number of books in your home is:	Under 50	134(61.47)	28(30.11)	7(25.00)	3(12.50)	172(47.38)	130.880	0.000**
	50-100	51(23.39)	40(43.01)	10(35.71)	1(4.17)	102(28.10)		
	100-200	21(9.63)	13(13.98)	8(28.57)	2(8.33)	44(12.12)		

Table 7 Chi-square Analysis of Family Capital and Extracurricular Education Time

Question	Description	The average time you spend on after-school education each week is approximately (%)				Total	χ2	p
		Less than 5 hours	5-10 hours	10-15 hours	More than 15 hours			
	More than 200	12(5.50)	12(12.90)	3(10.71)	18(75.00)	45(12.40)		
Total		218	93	28	24	363		
Do your parents often discuss your studies or future plans with you?	Never	30(13.76)	6(6.45)	1(3.57)	0(0.00)	37(10.19)	89.494	0.000**
	Occasionally	114(52.29)	35(37.63)	10(35.71)	4(16.67)	163(44.90)		
	Frequently	65(29.82)	36(38.71)	11(39.29)	4(16.67)	116(31.96)		
	Always	9(4.13)	16(17.20)	6(21.43)	16(66.67)	47(12.95)		
Total		218	93	28	24	363		
Do your parents regularly (at least once a month) discuss topics related to culture, art, science, etc. with you?	Frequently (every week)	54(24.77)	18(19.35)	8(28.57)	14(58.33)	94(25.90)	30.832	0.000**
	Sometimes (1 to 2 times a month)	74(33.94)	49(52.69)	11(39.29)	5(20.83)	139(38.29)		
	Rarely (once every few months)	51(23.39)	20(21.51)	8(28.57)	2(8.33)	81(22.31)		
	Hardly any	39(17.89)	6(6.45)	1(3.57)	3(12.50)	49(13.50)		
Total		218	93	28	24	363		
Your father's occupation type:	Civil servants / Public institutions	41(18.81)	10(10.75)	5(17.86)	13(54.17)	69(19.01)	35.126	0.000**
	Enterprise staff/managers	19(8.72)	16(17.20)	6(21.43)	4(16.67)	45(12.40)		
	Freelancing/self-employed	58(26.61)	28(30.11)	9(32.14)	5(20.83)	100(27.55)		
	Worker/Farmer	96(44.04)	37(39.78)	8(28.57)	2(8.33)	143(39.39)		
	Other	4(1.83)	2(2.15)	0(0.00)	0(0.00)	6(1.65)		
Total		218	93	28	24	363		
Your mother's occupation type:	Civil servants / Public institutions	48(22.02)	13(13.98)	5(17.86)	12(50.00)	78(21.49)	37.589	0.000**
	Enterprise staff/managers	15(6.88)	17(18.28)	4(14.29)	5(20.83)	41(11.29)		
	Freelancing / Self-employment	55(25.23)	30(32.26)	13(46.43)	4(16.67)	102(28.10)		
	Worker/Farmer	97(44.50)	31(33.33)	6(21.43)	3(12.50)	137(37.74)		
	Other	3(1.38)	2(2.15)	0(0.00)	0(0.00)	5(1.38)		
Total		218	93	28	24	363		
Do parents actively participate in school activities (such as parent-teacher meetings, volunteer activities, etc.)?	Never	33(15.14)	7(7.53)	2(7.14)	2(8.33)	44(12.12)	13.922	0.031*
	Occasionally	124(56.88)	49(52.69)	16(57.14)	8(33.33)	197(54.27)		
	Frequently	61(27.98)	37(39.78)	10(35.71)	14(58.33)	122(33.61)		
Total		218	93	28	24	363		
Can your parents or direct relatives provide you with academic-related networking resources (such as helping to contact internships, competition guidance, etc.)?	Yes, a lot of help	37(16.97)	10(10.75)	2(7.14)	11(45.83)	60(16.53)	52.070	0.000**
	Yes, it can be of some help	73(33.49)	61(65.59)	16(57.14)	4(16.67)	154(42.42)		
	Yes, but rarely help	41(18.81)	11(11.83)	7(25.00)	3(12.50)	62(17.08)		
	No	67(30.73)	11(11.83)	3(10.71)	6(25.00)	87(23.97)		

Table 7 Chi-square Analysis of Family Capital and Extracurricular Education Time

Question	Description	The average time you spend on after-school education each week is approximately (%)				Total	χ2	p
		Less than 5 hours	5-10 hours	10-15 hours	More than 15 hours			
Total		218	93	28	24	363		
Are there any of your parents or direct relatives working in the education industry (such as teachers, educational administrators, etc.)?	Yes, a lot of	43(19.72)	17(18.28)	5(17.86)	13(54.17)	78(21.49)	29.498	0.000**
	Yes，1	44(20.18)	34(36.56)	11(39.29)	2(8.33)	91(25.07)		
	No	131(60.09)	42(45.16)	12(42.86)	9(37.50)	194(53.44)		
Total		218	93	28	24	363		

* $p<0.05$ ** $p<0.01$

The results of the chi-square analysis examining the relationship between family capital variables and extracurricular education time are presented in Table 7. The influence of monthly household income ($\chi^2 = 109.286$, $p = 0.000$) and extracurricular education expenditure ($\chi^2 = 94.287$, $p = 0.000$) on extracurricular education time was highly significant. The proportions of high-income families (with an investment of over 20,000 yuan) and high-expenditure families (with an investment of over 2,000 yuan) spending more than 15 hours are 50.00% and 62.50% respectively, indicating that economic capital is an important determinant of extracurricular education time. Educational attainment of parents (father: $\chi^2 = 90.782$, $p = 0.000$;) Mother: $\chi^2 = 90.944$, $p = 0.000$) and the number of books collected at home ($\chi^2 = 130.880$, $p = 0.000$) also showed a highly significant difference. The proportion of highly educated parents and families with a large number of books spent more than 15 hours was higher, reflecting the role of cultural capital.

The frequency of parents discussing study or future plans ($\chi^2 = 89.494$, $p = 0.000$) and cultural, artistic, and scientific topics ($\chi^2 = 30.832$, $p = 0.000$) has a significant impact on the time spent on extracurricular education. Families that frequently discuss these topics have a higher proportion of high time investment. There are also significant differences in parents' occupational types (father: $\chi^2 = 35.126$, $p = 0.000$; mother: $\chi^2 = 37.589$, $p = 0.000$) and those working in the education industry ($\chi^2 = 29.498$, $p = 0.000$). Students from families where parents are civil servants or work in public institutions and those from families with parents in the education industry have a higher proportion of spending more than 15 hours, indicating the role of social capital in resource acquisition. The influence of parents' participation in school activities ($\chi^2 = 13.922$, $p = 0.031$) and social connections ($\chi^2 = 52.070$, $p = 0.000$) is also significant. Students from families where parents frequently participate in school activities and have more social connections spend more time on extracurricular education.

9. Analysis of Regression

Table 8: Likelihood Ratio Test for Ordered Logistic Regression Model

Model	-2 times the log-likelihood value	Chi-square value	*df*	*p*	AIC Value	BIC Value
Only intercept	749.483					
Final model	621.207	128.277	15	0.000	657.207	727.306

The results of the likelihood ratio test for the ordered logistic regression model are shown in Table 8. The results of the likelihood ratio test for the ordered logistic regression model are shown in Table 8. Likelihood ratio test is used to evaluate the overall fitting effect of the ordered Logistic regression model. This indicates that the final model significantly improves the fitting effect compared to the intercept-only model, and the model as a whole is highly statistically significant.

Table 9: Ordered Logistic Regression Analysis Results

Term	Term	regression coefficient	standard error	*z* Value	Wald $\chi 2$	*p* Value	OR value	OR value 95% CI
Threshold of dependent variable	Under 5 hours	5.301	1.118	4.741	22.473	0.000	0.005	0.001 ~ 0.045
	5-10 hours	7.132	1.152	6.191	38.324	0.000	0.001	0.000 ~ 0.008
	10-15 hours	8.259	1.180	6.999	48.980	0.000	0.000	0.000 ~ 0.003
Independent variable	Your grade:	0.480	0.161	2.984	8.902	0.003	1.616	1.179 ~ 2.214
	The type of school you are in:	-0.083	0.192	-0.432	0.187	0.666	0.920	0.631 ~ 1.342
	Your family's monthly income is approximately:	0.458	0.173	2.643	6.984	0.008	1.581	1.126 ~ 2.222
	The monthly expenditure of a family on extracurricular education (such as tutorial classes, interest classes, etc.) is approximately:	0.357	0.136	2.616	6.842	0.009	1.428	1.094 ~ 1.866
	Your father's highest educational attainment:	0.214	0.222	0.964	0.930	0.335	1.238	0.802 ~ 1.912
	Your mother's highest educational attainment:	-0.025	0.230	-0.108	0.012	0.914	0.976	0.621 ~ 1.532
	The approximate number of books in your home is:	0.321	0.154	2.091	4.372	0.037	1.379	1.020 ~ 1.864
	Do your parents often discuss your studies or future plans with you?	0.521	0.172	3.023	9.138	0.003	1.684	1.201 ~ 2.362
	Do your parents regularly (at least once a month) discuss topics related to culture, art, science, etc. with you?	-0.072	0.144	-0.502	0.252	0.616	0.930	0.701 ~ 1.234
	Your father's occupation type:	0.086	0.178	0.480	0.230	0.631	1.089	0.768 ~ 1.545
	Your mother's occupation type:	0.219	0.179	1.221	1.491	0.222	1.244	0.876 ~ 1.767
	Do parents actively participate in school activities (such as parent-teacher conferences, volunteer activities, etc.)?	-0.147	0.203	-0.727	0.529	0.467	0.863	0.580 ~ 1.284
	Can your parents or immediate family members provide you with academic-related networking resources (such as helping to contact internships, competition guidance, etc.)?	-0.073	0.137	-0.529	0.280	0.597	0.930	0.711 ~ 1.217
	Are there any of your parents or direct relatives working in the education industry (such as teachers, educational administrators, etc.)?	-0.162	0.160	-1.009	1.018	0.313	0.850	0.621 ~ 1.165

Note: McFadden's $R^2 = 0.171$, Cox and Snell r2 = 0.298, Nagelkerke R 2 = 0.341

The detailed results of the ordered logistic regression analysis are summarized in Table 9. For each increase in income and expenditure level, the likelihood of students spending more time increases by 58.1% and 42.8% respectively. This reflects that economic capital significantly promotes participation in extracurricular education through direct resource input, such as paying for tutoring classes. Additionally, the number of books at home and the frequency of parents discussing studies or future plans also have a significant positive impact.

10. Conclusion

Regression analysis confirms that family monthly income (OR = 1.581, p = 0.008) and after-school education expenditure (OR = 1.428, p = 0.009) are significant positive factors influencing after-school education time, indicating that economic capital promotes resource acquisition through direct investment such as paying for tutoring fees. Data shows that there is a significant positive correlation between family economic capital and access to after-school educational resources, so hypothesis 1 holds true.

Regarding hypothesis 2, the data indicates that family cultural capital has a significant positive impact on high school students' access to extracurricular educational resources. There is a positive correlation between parents' educational attainment and the time spent on extracurricular education. Regression analysis shows that the number of books at home (OR = 1.379, p = 0.037) and the frequency of parents discussing learning/future planning (OR = 1.684, p = 0.003) have a significant positive impact on the time spent on extracurricular education, indicating that cultural capital promotes resource acquisition through family cultural resources and educational interaction.

In terms of Hypothesis 3, the influence of family social capital is reflected through difference analysis. Chi-square analysis shows that parents' provision of academic networking resources (χ^2=52.070, p=0.000） and participation in school activities (χ^2=13.922, p=0.031） have a significant impact on extracurricular education time, indicating that social capital indirectly supports resource acquisition through networking and home-school interaction.

Regarding Hypothesis 4, the data reveals the interactive influence among family economic capital, cultural capital, and social capital. Firstly, family economic capital positively moderates the effect of cultural capital. The synergy between economic capital and cultural capital is evident in the data. Secondly, the data shows that when economic capital and social capital are combined, resource acquisition is more thorough. This confirms that the combined effect of the two is stronger. Finally, the compensatory role of social capital for families with insufficient economic resources is demonstrated. This indicates that social capital partially compensates for the insufficiency of economic capital.

In summary, high school students' access to extracurricular educational resources is a complex process shaped by multiple factors, where no single aspect operates in isolation. Instead, it requires the interaction and synergy of family economic capital, cultural capital, social capital, and individual background variables to determine the extent and quality of resource acquisition. This interconnected operational mechanism not only reflects the structural differences in educational resource access but also highlights the need to address disparities through comprehensive interventions targeting multiple dimensions of family capital.

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