



# The Relationship of Educational Expectations of Children in Mountainous Areas, the Influence of Significant Others, and Educational Attainment

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**Abstract.** Background: The article explores the factors influencing educational expectations of children in mountainous areas, analyzing from the perspectives of significant others and educational attainment.

Methods: Through a survey distributed to adolescents in China, 227 questionnaires had collected. Then the hypothesized model was examined using the PROCESS.

Results: the study found that first, significant others directly and significantly affect the educational expectations of children in mountainous areas; second, significant others directly impact their sense of educational attainment, which indirectly influences their educational expectations.

Conclusion: The research on the impact of significant others and educational attainment in mountainous areas opens new paths for promoting educational equity.

**Keywords:** Children in mountainous areas, Educational Expectations, Attainment, Peer influence, Parents influence

## 1 Introduction

The education of children in mountainous areas has always been a topic of social concern. Many social and charitable groups offer support to these children, hoping they can achieve greater self-development. Mountainous areas refer to regions with a terrain of mountains and hills, and children living in these areas are known as “mountainous area children.” The rugged terrain of these regions often leads to soil erosion, making agriculture challenging and limiting economic development. Additionally, the challenging landscape hinders infrastructure development, such as roads and railways, leading to isolation and economic underdevelopment.

This paper argues that low educational expectations negatively affect the future development of children in mountainous areas, and focuses on understanding the factors influencing the educational expectations of children in mountainous areas.

## 1.1 Educational Expectations

Expectation is a predictive understanding that arises from an individual's analysis and summarization based on observations of themselves and others [1]. Research indicates that educational expectations encompass the expectations held by significant others, such as parents and teachers, regarding an individual's ultimate educational attainment [2].

Blau and Duncan conducted a study to explore how inherited and self-caused factors influence intergenerational social mobility [3]. Bronfenbrenner proposed an ecological model that suggests that the environment influences individual behavior and physical and psychological development [4]. Besides, Li Wangyang utilized tracking data from the China Family Panel Studies (CFPS) were influenced by educational expectations during primary school [5].

Research shows that educational attainment is positively correlated with income level. Low-income families often lack competitive access to educational resources and tend to lower their educational expectations for their children [6-7]. One study found that adolescents from low socioeconomic status families listed more work-related goals, while those from high socioeconomic status families listed more education-related goals [8].

## 1.2 Significant Others

Yang Lizhu et al. referred to the expectations regarding their children's morals, personality, and choices in higher education and careers as parental educational expectations [9]. Seginer categorized parental expectations into two types: realistic expectations and ideal expectations [10]. Other research indicates that parents influence adolescents' beliefs, expectations, and choices regarding future education and careers by conveying their own beliefs and expectations to their children [11]. As individuals enter adolescence, they gain more independence from their parents and spend more time with peer groups [12].

## 1.3 Educational Attainment

"Attainment" refers to the sense of satisfaction that arises from obtaining certain benefits. Huang Dongxia proposed three dimensions—psychological, cognitive, and behavioral—providing a detailed argument in the context of ideological and political education, suggesting that individuals generate subjective feelings during the practice and perception of ideological education [13]. Sun Jianxin mentioned that students' judgments of their educational attainment affect their future plans and choices, influencing university students' knowledge-related goals and emotional goals [14].

## 1.4 Research Hypotheses:

This paper intends to answer the following research questions and test the corresponding hypotheses:

Research Question 1: Is there a significant correlation between the educational expectations of children in mountainous areas and other factors?

Hypothesis 1: The educational expectations of children in mountainous areas are significantly related to significant others.

Hypothesis 2: The educational expectations of children in mountainous areas are significantly related to their educational expectations.

Research Question 2: Is there a mediating effect in the study?

Hypothesis 5: The educational attainment of children in mountainous areas acts as a mediating effect.

## **2 Methods**

### **2.1 Participant**

A total of 227 adolescents from Meigu County, Liangshan Prefecture, Sichuan Province, China, were recruited for this study, including 118 girls and 109 boys. Data collection was facilitated by volunteers from the Liangshan region, and participants voluntarily filled out the questionnaires. Volunteers distributed and collected the questionnaires, with a clear statement at the beginning outlining the research purpose, allowing participants to freely choose whether to participate. The data was collected from elementary and middle school students without reading disabilities.

### **2.2 Measure**

The Mountainous Area Children's Educational Expectation Questionnaire was designed as a brief tool to assess children's value judgment and expectations regarding education in the Liangshan region. It consists of 11 questions, based on Zhao Ruochen's *The Relationship between Junior High School Students' Perceived Parental Expectations, Future Goals, and Self-Identity and Educational Strategies* [15], and Fang Chen's *The Influence of Family Socioeconomic Status on Rural Students' Self-Education Expectations* [16]. The questionnaire uses a 5-point Likert scale, where respondents select answers that best match their situation, ranging from "completely disagree" to "completely agree." For the current sample, the Cronbach's alpha for the total score is 0.84.

The Mountainous Area Children's Educational Attainment Questionnaire evaluates the satisfaction children feel after receiving education. It is based on a questionnaire designed by Zhang Xue and contains five items, with a Cronbach's alpha of 0.61 for the current sample.

The Significant Others Influence Questionnaire—Short Form measures the influence of key groups on adolescents during their development. This questionnaire is adapted from Zhao Ruochen and Yu Fengjie's designs and is divided into three subscales: peer influence, teacher influence, and parental influence. Peer influence assesses the impact of peers' behavior and attitudes on adolescent development, while teacher and parental influence assess the impact of their behavior and expectations on individual growth. The questionnaire consists of 20 items: 8 items for peer influence,

and 6 items each for teacher and parental influence. After conducting factor analysis, teacher influence had an eigenvalue of 2.295 and it accounted for 38.252% of the variance. Parent influence had an eigenvalue of 1.834 and it accounted for 30.564% of the variance. Peer influence had an eigenvalue of 1.934 and it accounted for 24.177% of the variance. Items that significantly deviated from other results were removed, including item D7 from teacher influence and items D35, D36, D9, D12, D18, and D21 from peer influence (see Table 1). The final version of the questionnaire contains 13 items: 5 for teacher influence, 4 for parental influence, and 4 for peer influence, with reliabilities of 0.69, 0.60, and 0.61, respectively.

**Table 1.** Factor analysis

| Questions                      | Factor 1<br>Teacher | Factor 2<br>Parent | Factor 3<br>Peer |
|--------------------------------|---------------------|--------------------|------------------|
| D3                             | 0.61                |                    |                  |
| D7                             | 0.24                |                    |                  |
| D8                             | 0.70                |                    |                  |
| D14                            | 0.75                |                    |                  |
| D15                            | 0.67                |                    |                  |
| D19                            | 0.60                |                    |                  |
| D31                            |                     | 0.66               |                  |
| D32                            |                     | 0.64               |                  |
| D33                            |                     | 0.66               |                  |
| D34                            |                     | 0.71               |                  |
| D35                            |                     | -0.21              |                  |
| D36                            |                     | -0.08              |                  |
| D9                             |                     |                    | 0.14             |
| D10                            |                     |                    | 0.70             |
| D12                            |                     |                    | 0.28             |
| D16                            |                     |                    | 0.30             |
| D18                            |                     |                    | 0.10             |
| D20                            |                     |                    | 0.76             |
| D21                            |                     |                    | 0.24             |
| D23                            |                     |                    | 0.78             |
| Reliability (Cronbach's alpha) | 0.69                | 0.60               | 0.61             |

### 2.3 Data Analysis

During the data analysis process, correlations were calculated to establish relationships between peer influence, parental influence, teacher influence, educational expectations, and educational attainment in children from mountainous areas. The PROCESS macro was used to estimate the path coefficients in the mediation model. To test the overall and indirect effects of X (significant others' influence) on Y (educational expectations), bias-corrected and accelerated bootstrapped confidence intervals were generated, using educational attainment as the mediator.

3 Results

The average age of the participants was 14 years (mean = 14.48, standard deviation = 2.92). Significant correlations were found between the variables (see Table 2). The data analysis indicated that the higher the score for significant others' influence (X), the higher the score for educational expectations (Y). Significant others' influence (X) does not directly affect educational expectations (Y); rather, it influences Y through the mediating role of educational attainment (M). X predicts M ( $\beta = 0.24$ ,  $P < 0.00$ ), and M more strongly predicts Y ( $\beta = 0.75$ ,  $P < 0.00$ ). Thus, the indirect effect of  $X \rightarrow M \rightarrow Y$  is significant (indirect effect size: 0.05, S1: 0.75,  $P < 0.00$ , LLCI: 0.48, ULCI: 0.66) (see Table 3).

Table 2. correlations among study variables (N=220)

|                           | 1     | 2      | 3      | 4      | 5 |
|---------------------------|-------|--------|--------|--------|---|
| 1.Peer influence          | 1     |        |        |        |   |
| 2.Parental influence      | 0.14* | 1      |        |        |   |
| 3.teacher influence       | 0.02  | 0.62** | 1      |        |   |
| 4.Educational expectation | 0.09  | 0.71** | 0.81** | 1      |   |
| 5.Educational attainment  | -0.04 | 0.53** | 0.63** | 0.65** | 1 |

\* $p < .05$ ; \*\* $p < .01$

Table 3. Effect size of mediation

| Effects                                                                                            | effect size | SE   | p   | 95%CI |      |
|----------------------------------------------------------------------------------------------------|-------------|------|-----|-------|------|
|                                                                                                    |             |      |     | LLCI  | ULCI |
| Direct Effects                                                                                     |             |      |     |       |      |
| Others' influence->educational expectation of children in mountainous area                         | 0.57        | 0.05 | .00 | 0.48  | 0.66 |
| Indirect Effects                                                                                   |             |      |     |       |      |
| Others' influence->educational attainment->educational expectation of children in mountainous area | 0.75        | 0.05 | .00 | 0.66  | 0.84 |

4 Discussion

This study explored whether there is a significant relationship between the educational expectations of children in mountainous areas, the influence of significant others, and educational attainment, and whether there is a mediating variable that influences the relationship between these factors.

Compared to more affluent areas, mountainous regions face a lack of various resources. This lack gradually leads to a more closed mindset among the people, with children not having positive role models around them, which in turn makes it difficult for them to understand what kind of future can be achieved through education.

Yang Yajun's research indicates that rural parents generally have lower levels of education and do not have high-level or high-income jobs. Most are engaged in physical labor [17]. When students cannot obtain such positive feedback, their sense of educational attainment declines, indirectly lowering their educational expectations.

## 5 Conclusion

Based on questionnaires filled out by elementary and middle school students in Meigu County, Liangshan Prefecture, this paper explored the relationship between the educational expectations of children in mountainous areas, the influence of significant others, and their sense of educational attainment. The study found: first, significant others directly influence the educational expectations of children in mountainous areas and have a significant impact; second, significant others directly affect their sense of educational attainment, which in turn mediates and indirectly influences their educational expectations.

As the score for significant others increases, the score for educational expectations in children also rises. This indicates that the words and actions of parents, peers, and teachers around the students influence them. Significant others who demonstrate good behavior and have higher expectations for students positively impact the students, thereby raising their educational expectations. Significant others also enhance educational expectations by improving students' sense of educational attainment.

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