

# Research on Take an Examination of Oneself Potential Candidates Intend Empirical

## *Take Colleges in Sichuan as Example*

Zhou Lin Bo<sup>1</sup> & Chen Dong<sup>1</sup>

<sup>1</sup>Sichuan Agricultural University, Ya'an, Sichuan, China

Correspondence: Chen Dong, Sichuan Agricultural University, Ya'an, Sichuan, China. E-mail: 284627902@qq.com

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### **Abstract**

Through the metrological analysis to Sichuan Province of potential candidates in willingness to take the self-study exam, we find the potential candidates attendance of self-study exam mainly determined by the marital status, family supporting degree, mathematics course, English courses, and the willingness to improve academic degree. Knowing self-study exam or not as the influence of participation in the work of self-study examination may have in future, the influence of different factors influencing degree and significant are also different.

**Keywords:** the education ministry, register for examination

### **1. Introduction**

Our country have executed self-study exam over 20 years with great achievements. The self-study exam serve as an important form of socialization, lifelong education which is being widely accepted, and view it from a long-term perspective, the enthusiasm involved in the exam also embodied as let from examinee mastering the methods of learning, become adapt to changing social demand of lifelong learners. But in recent years, the enrollment declines year after year, full-time college and adult enrollment expansion of the distance education, the rise of student, the examination of oneself is difficult to meet the examinee's needs and national economic development is not balanced because of low threshold, low cost, small, and learning engineering contradiction flexible advantage to suffer. Self-study exam student in quantity, age structure, the vocational structure, education level has changed, this makes of the new situation and the test, to conduct professional setting and curriculum reform to adjust their own development direction, it can achieve keeping pace with The Times, the eternal vitality. Based on the education ministry potential candidates in Sichuan province as the research object, this paper focus on the potential candidates, tries to analyzed the potential candidates from individual, household and such as attend self-study exam intention and its influencing factors, so as to Sichuan province and even the whole country the education ministry of development.

### **2. Data, Variable and Model Selection**

#### *2.1 Data Sources*

The data of this paper comes from a survey which was made between September 2007 to December in Chengdu WenJiang district, Yibin district, Yoann district, Luoshan Meishan district. With 220 of potential candidates as investigation object, adopting the combination of two different ways: on-the-spot investigation and interview method. Finally, we collected a total of 210 copies, among which valid questionnaires reached to 207 copies.

#### *2.2 Variables and the Model Selection*

##### **2.2.1 Be Explained Variables: Whether to Attend Self-Study Exam**

In view of the investigation object features, the willingness to attend self-study exam will be interpreted as a variable. Investigation on whether to attend the potential examinee answer, 66.67 % give the affirmative response, 33.33% respond negative. According to the research objective, we choose samples with clear intend as research object.

### 2.2.2 Setting for Explanatory Variables

For potential examinee themselves, the influencing factors to make a choice between to engage in work or in other forms of education or attend self-study exam are rather complicated. Studies emphatically from the potential examinee's personal and family characteristics, the examinee's understanding towards self-study exam, etc. We divided the factors influence the potential candidates attend self-study exam into 2 types containing 7 variables. The relevant variables (explanatory variables) definition can be found in table 1.

### 2.2.3 Model Building

Based on the description and analysis above, potentially examinee reference intention and its influencing factors relation can be set as the following function: potential candidates reference intend = F (individual and family feature variables, take an examination of oneself characteristic variables) + disturbance

It is difficult to use numerical value to express and measure willingness directly, in this article we use the "0 - 1" index method to present potential candidates reference will. "1" stands for potential candidates ready to attend self-study exam, with "0" stands for potential candidates are not willing to attend self-study exam and in the investigation of potential candidates with scale reference intend to undertake measuring. As this study variable value on [0, 1] interval, logistic regression model is adopted here<sup>[4]</sup>.

Set probability for  $y = 1$  is  $P$ ; calculate the dependent variable for 1 probability.

$$P : P(Y_1 = X_1, \beta = F(-X_1^2 \beta))$$

In this definition, using maximum likelihood estimation evaluation function model for:

$$P_i = F(\alpha + \sum_{t=2}^m \beta_j X_{ij}) = 1 / \{1 + \exp[-\alpha + \sum_{t=2}^m \beta_j X_{ij}]\} + e_i$$

In the formula,  $P_i$  stands for the probability potential candidates are willing to attend self-study exam,  $\beta_j$  stands for factors of regression coefficients,  $m$  stands for influence factors of probability,  $X_{ij}$  is independent variables, stands for influencing factor— $j$ ,  $\alpha$  for regression intercept.  $e_i$  stands for randomized study.

Table 1. Empirical model explanatory variables instructions

Variable Name	Variable Definition	Average Value
Individual and family feature variables		
Marital status	Single =0; Married = 1	0.048
Family support level	Object =0; Not very support =1; In general = 2; Support =3;Very supportive =4	2.739
Take an examination of oneself characteristic variables		
The influence of mathematics curriculum for one to take an examination of oneself	No = 0; Slightly influence =1; In general =2; Make a big difference =3; Enormous implications =4	2.512
The influence of English course for one to take an examination of oneself	No=0; Slightly influence =1; In general =2; Make a big difference =3; Enormous implications =5	2.899
The willingness for you to improve academic degree level	Without =0; Have =1	0.899
Whether you know something about take an examination of oneself	Not know=0; Know=1	0.937
What effect you think may have on your future work and study after taking an examination of oneself	No=0 ; Rarely =1; In general = 2; Big=3; Great = 4	2.527

### 3. Relevant Hypothesis and Analysis

According to the potential candidates and their families and take an examination of oneself connection, from individual and family feature variables, take an examination of oneself characteristic variables in two aspects of influence potential candidates attend self-study exam intend to the factors of hypothesis analysis. Specific include variables expected direction as shown in chart 2, including 10 / a representative expected variables and attend self-study exam intend to be related.

Table 2. Each affecting factor to be explained variables expected direction

Influencing Factor	Be Explained Variables ( Potential candidates to take an examination of oneself intention )
Individual and family feature variables	
Marital status	-
Family support level	+
Take an examination of oneself characteristic variables	
The influence of mathematics curriculum for one to take an examination of oneself	-
The influence of English course for one to take an examination of oneself	-
The willingness for you to improve academic degree level	+
Whether you know something about take an examination of oneself	+
What effect do you think may have on your future work and study after taking an examination of oneself	+

#### 3.1 Individual and Family Feature Variables

##### 3.1.1 Marital Status

Through the Survey we find that different sample has different marital status. Compared married to those unmarried, considering the family burden, supporting the old and child education, married person are more inclined to give up self-study exam. This paper makes the expectation that in the survey the tendency of married person to attend self-study exam is correspondingly lower.

##### 3.1.2 Family Support Level

For most people they can get family (especially parents) support, which is a key factor for individual to do things with firmly confidence. Attend self-study exam is no exception. Therefore, this article supposes the supporting level from potential examinee family and their participation in self-study exam will be positively related.

#### 3.2 Take an Examination of Oneself Characteristic Variables

##### 3.2.1 The Influence of Math, English Courses towards Participation in Self-Study Examination

Most of the examinee reflect that " Advanced mathematics ", "English" and some other general courses are quite difficult, percent of pass is very low, greatly contuse examinee's learning enthusiasm and cause partial examinees drop out of the school in halfway. This paper assumes math, English's curricular difficulty (or ratio) and potential candidates participation in self-study exam will be negatively related.

##### 3.2.2 The Willingness to Improve Academic Degree Level or Not

Although degree does not necessarily indicate ability, but take a general view of recruitments, it is easily to find record of formal schooling function as a stepping-stone to success with no doubt. The willingness whether to continue study, improve degree level is vitally important. Research assumes that improving degree level of intensity degree and whether potential candidates to attend self-study exam will be positively related.

##### 3.2.3 Whether Having a Clear Meaning towards Self-Study Examination

For a higher education mode like self-study exam, whether people have a clear understanding or not, play an

important role for one to take the exam. For self-study exam the more you understand, the more you tend to enter oneself for an examination. Therefore we assume whether knowing self-study exam and participation in self-study exam will be positively related.

### 3.2.4 Attend Self-Study Examination for Future Work Learning Effect

The examinee attend self-study exam is just one way to improves their own quality, with its ultimate purpose is to get a good job or could bring help in the future work. It is thus clear that, attend self-study exam of examinee after work to improve, the greater the study help, the greater the examinee are more willing to enter oneself for an examination. In this sense, we assume the attend to self-study examination for future work, study the influence degree and attend self-study exam will be positively related.

## 4. Measurement Result Analysis

### 4.1 Model Estimation Results

In research we use statistical software SPSS13.0 to investigate obtains potential candidates in higher education self-study exam cross-section data for logistic regression analysis. In data processing progress, we use backward screening method. First all the variables will be brought into regression equation to start regression coefficient of significant test, step by step will Wald minimum value of the variable eliminate, then carries on the regression, until all variables significantly so far. Finally there will be seven measurement estimation results. The model of operation results shows that the overall inspection is basically feasible model, owing to length relation, this paper only list the last step estimation results (table 3).

Table 3. Higher education self-study exam to intend model estimation results

Explanatory Variable	B	S . E .	Wald	Sig.	Exp ( B )
Constant term	5.337	1.26	17.9	0	0.005
Marital status	-1.435***	0.86	2.78	0.1	0.238
Family support level	0.456	0.19	5.53	0.02	1.578
The influence of mathematics curriculum for one to take an examination of oneself	-0.281***	0.16	3.31	0.07	1.325
The influence of English course for one to take an examination of oneself	-0.272***	0.17	2.73	0.1	0.762
The willingness for you to improve academic degree level	2.412*	0.69	12.3	0	11.16

Whether you know something about take an examination of oneself	1.4**	0.74	3.62	0.06	4.054
What effect do you think may have on your future work and study after taking an examination of oneself	0.61*	0.22	7.97	0.01	1.84
Forecast accuracy		75.40%			
Log likelihood		208.209			
A chi-square test value		55.308			
R <sup>2</sup> in Nagelkerke		0.326			

Note: \*, \*\*, \*\*\* separately represent notable levels for 10 %, 5 % and 1 %.

#### 4.2 Discussion towards the Results

4.2.1 Potential candidates marital status coefficient is - 1.435, which suggests potential candidates' marital status can have greater negative impact on it's will to attend self-study exam. Unmarried people are more likely to attend self-study exam than married people, in accordance with the assumptions. The reason is probably that married examinees' family burden is heavier, both "energy" and "money" does not allow its attending self-study exam.

#### 4.2.2 Family Support Level to Attend Self-Study Examination Will Have Strong Positive Effect

From the model results that the lower support from your family, the lower levels of potential candidates take an examination of oneself. Conversely the willing grows stronger. The reason is that family's mental support to potential candidates can spiritually encourages them overcome difficulties to pass self-study exam; While the support from economic is also the important factors. Once potential candidates determined to attend self-study exam, there will be inevitably a large amount of expense needed, but also the existence of corresponding opportunity cost. Therefore, family support in economic is very important whether one will enter self-study examination.

#### 4.2.3 Math, English Courses Have Great Negative Effects for Potential Candidates to Take an Examination of Oneself

The model result shows, in 10% of significant level, standardized coefficient separately for -0.281, -0.272, explains that math and English course have very big effect to examinee register to attend self-study exam. Students attend self-study examination may not based on solid ground; math and English course for them are quite tricky. During the investigation, the author also found that the examinee generally reflected the biggest headache is math and English classes, some candidates even failed the exam several times. Math and English curriculum virtually brought pressure for potential candidates.

#### 4.2.4 People Who Want to Improve the Academic Degree Level are more willing to Attend Self-Study Exam than People Who Have No Wish

From the model, from which can be seen the standardized coefficient to improve the academic degree intend to 2.412 and in the significant level of the 1 %, this shows that the more eager one intend to improve degree level, the more recognition from employment and income and promotion will bring, so more and more people would like to attend self-study exam.

#### 4.2.5 Whether Know Something about Take an Examination of Oneself Can Make a Big Difference

From the model, we can see that whether knows about the exam is significant in 5% level, coefficient of positive. It explains that the potential candidates are more likely to attend self-study exam if they know enough about it.

4.2.6 From the Model Results, the Degree the Potential Candidates Believe to Take an Examination of Oneself May Have towards Their Future Work and Study is a Very Positive Effect to Their Performance in the Examination It shows that one hold the view that taking the exam will bring some benefits to their future work and study are more inclined to sign up for reference. Fully understand the possible effect may bring by self-study exam will help promote the expansion of matriculate.

## 5. Conclusion and Related Suggestions

### 5.1 Conclusion

Analysis results show that the potential candidates attendance of self-study exam intend behavior mainly influenced by its marital status, family support level, mathematics course, English courses, the willingness to improve academic degree. Knowing self-study exam or not as the influence of participation in the work of self-study examination may have in future, the influence of different factors influencing degree and significant are also different.

### 5.2 Related Suggestions

#### 5.2.1 Whether Potential Candidates Know Much about Self-Study Exam and Family'S Support Degree to Attend Self-Study Exam Have Important Influence

Sichuan province self-study exam register population from 2002 respectively 659095 person-times diminishing in 2006 393753 person-time. In order to reverse this trend, better serve economic construction and new rural construction of socialism, we have to cultivate more talents to reflect. Therefore, we must intensify the higher education self-study exam propaganda, using broadcast, television and network media to report work related to self-study exam policy on time, take an examination of oneself registration items, accomplish a key to highlight, publicity timely to shorten the distance between potential candidates and self-study exam.

#### 5.2.2 Adjustment of Curriculum System

Through the appropriate adjustments to mathematics, English course proportion, or with practical courses to replace them, in order to reduce potential examinee's psychological pressure. Set up curriculums with local characteristics, the content of courses could undertake module type design, pay special attention to the relative independence, and select course application, better technical professional courses. According to certain ability raise combination of a group of module type programs to meet the occupation, learning skill requirements. Curriculum must adjust efforts embodied self-study concept, at the same time try to execute non-academic certificate, occupational qualification certificates with the method of combining education certificate.

#### 5.2.3 Increase the Propaganda of the Advanced Type; Highly Develop the Power of Example

Through examples, infection potential candidates can fully realize "knowledge changes fate, learning achieves future". Let potential candidates realize attend self-study exam of study, can provide them a better platform for future work and learning, guiding potential candidates gradually transformed to actual examinee.

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