Research on the Evaluation System of College Students' Honesty Education Based on Customer Satisfaction Theory

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Abstract: Honesty is the foundation of one's own life and the moral quality that contemporary college students should have. According to the theory of customer satisfaction, this paper evaluates the actual effect of honesty education in colleges and universities from the perspective of students, establishes the model of student satisfaction index of honesty education of college students and conducts practical evaluation. Help colleges and universities enhance the effectiveness of ideological and political education in terms of strengthening and improving the content of honest education and creating a good environment for honest education so as to strengthen the effect of honest education in colleges and universities.

Keywords: Customer Satisfaction Theory; College Students; Integrity education.

1. Evaluation System

Honesty is honesty and trustworthiness, is the traditional virtue of the Chinese nation for thousands of years, it emphasizes honest work, keep its promise, treat people with sincerity, integrity is the value of the socialist core values of individual citizens.February 2017,The CPC Central Committee and the State Council printed and distributed the Opinions on Strengthening and Improving Ideological and Political Work in Colleges and Universities in the New Situation.Emphasize the construction of honesty and credit, strengthen social ethics, professional ethics, family virtues, enhance their cognition of honesty and credit, cultivate their integrity and emotion,So as to develop an educational activity of honest behavior, which is based on the educational practice of enhancing its moral character and motivation such as "honesty, sincerity, credit and trust" as its direct objective[2].Integrity education has always been the focus of ideological and political work in colleges and universities. Integrity Education Propaganda Month, Integrity Debating Contest, and Honesty Signing, etc. Campus cultural activities have enriched the forms of honesty and credit education for college

students, cheated on exams, resume fraud, and job plagiarism.In recent years, the rapid development of shared cycling in the campus is the test of the effect of college students' honesty education. To do a good job of evaluation of college students 'honesty education is beneficial to colleges and universities to carry out the activities of honesty education better. It is of great significance to enhance the effectiveness of college students' honesty education and to help college students to practice socialist core values.

2. The principle of the evaluation of honesty education for college students.
Education is a purposeful activity, so it has an evaluation in all education activities. The CPC central committee and the state council issued the opinions on strengthening and improving the ideological and political work of colleges and universities in the new situation. Formulate a comprehensive, reasonable and scientific method of evaluation index system, insist on the combination of qualitative analysis and quantitative analysis, job evaluation and effect evaluation, combining to promote ideological and political work [1]. At present, the evaluation of education for college students should respond to the spirit of "opinions" and follow the following basic principles.
(1) the principle of reasonableness. To achieve the rationality of the evaluation system of college students' honesty education content, only some evaluation to grasp the key and dominant index, and these indicators set must be relevant to college students' actual life.
(2) operational principle. it will not be conducive to operation. Therefore, college students' integrity education evaluation system is built on the basis of taking care of all factors, and it is easy to quantify the measurable factors and the main assessment content.
(3) validity principle. Honesty education evaluation system is the function of the real evaluation of college students' honesty education actual effect, let the students in colleges and universities to facilitate control integrity status, to make the right judgment, thus let the students realize the application effect of this system.

3. User satisfaction theory and index model.
Customer satisfaction produced in seventy s of the 20th century American Cardozo psychological research to consumer, after decades of development, gradually improve, has been widely used in petroleum, banking, electricity, education and other fields. Domestic customer satisfaction study as early as in 1995, tsinghua university, and in 2002 established the China customer satisfaction index is suitable for the reality of our country CCSI（China Customer Satisfaction Index）model[3]User satisfaction refers to the user's satisfaction degree, which is the subjective feeling of whether the user is

satisfied or satisfied with a product or service; The user satisfaction index is the result of the calculation and analysis of the degree of satisfaction of users' subjective feelings with a specific mathematical model[4].Factors affecting user satisfaction mainly includes image, customer expectations, users perception, emotion, and user loyalty from several aspects, the model is shown in figure 1, according to different product or service, the structure of the variables in the model will be cut.

From the perspective of economics, education belongs to the tertiary industry service industry. it will be conducive to the college students' honesty education in the direction of the personalized, diversified.
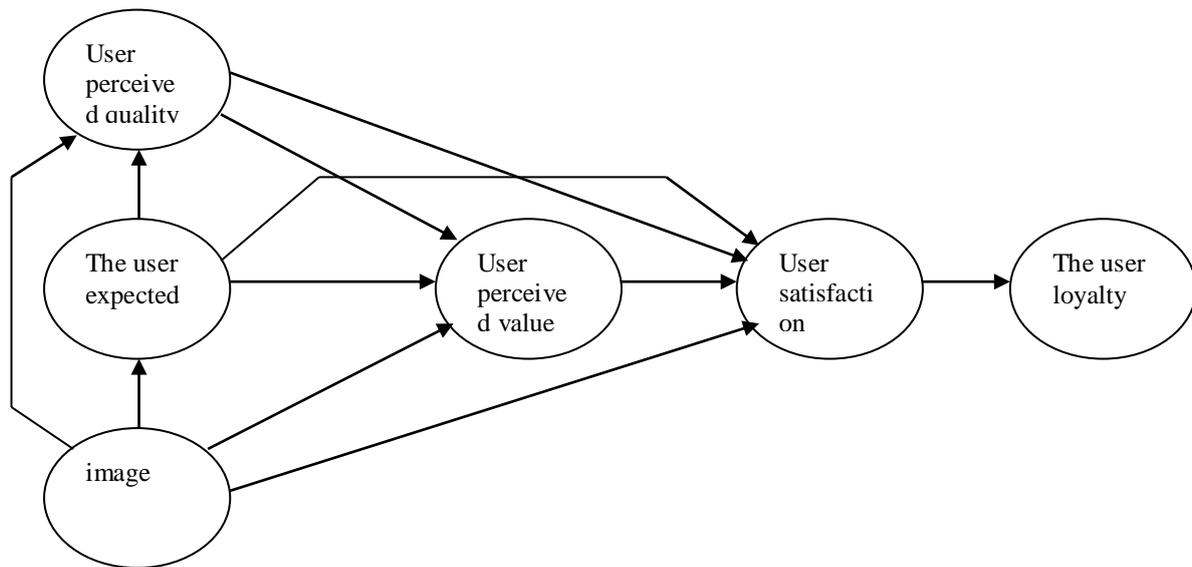

Figure 1 user satisfaction index model

4. Construction of the evaluation system of education for college students based on user satisfaction index model.

College students' integrity education has its special attributes. The main features are: ①Education service, service student growth, help students to improve their sense of integrity; ② The education process does not include price factors; ③ Mandatory, whether the students are willing or not, under certain conditions, students must accept the integrity of education. According to the user satisfaction theory, college students' honesty education satisfaction mainly includes two aspects: the students' brand impression of education strength and the actual perception of students.Students' satisfaction with education is the result of psychological evaluation, either satisfactory or unsatisfactory, and vice versa.In view of the above characteristic, the reference user satisfaction index model, building image by the good faith education, students' awareness and student satisfaction of three structure variables of college students' honesty education evaluation of student satisfaction index model, as shown in figure 2.
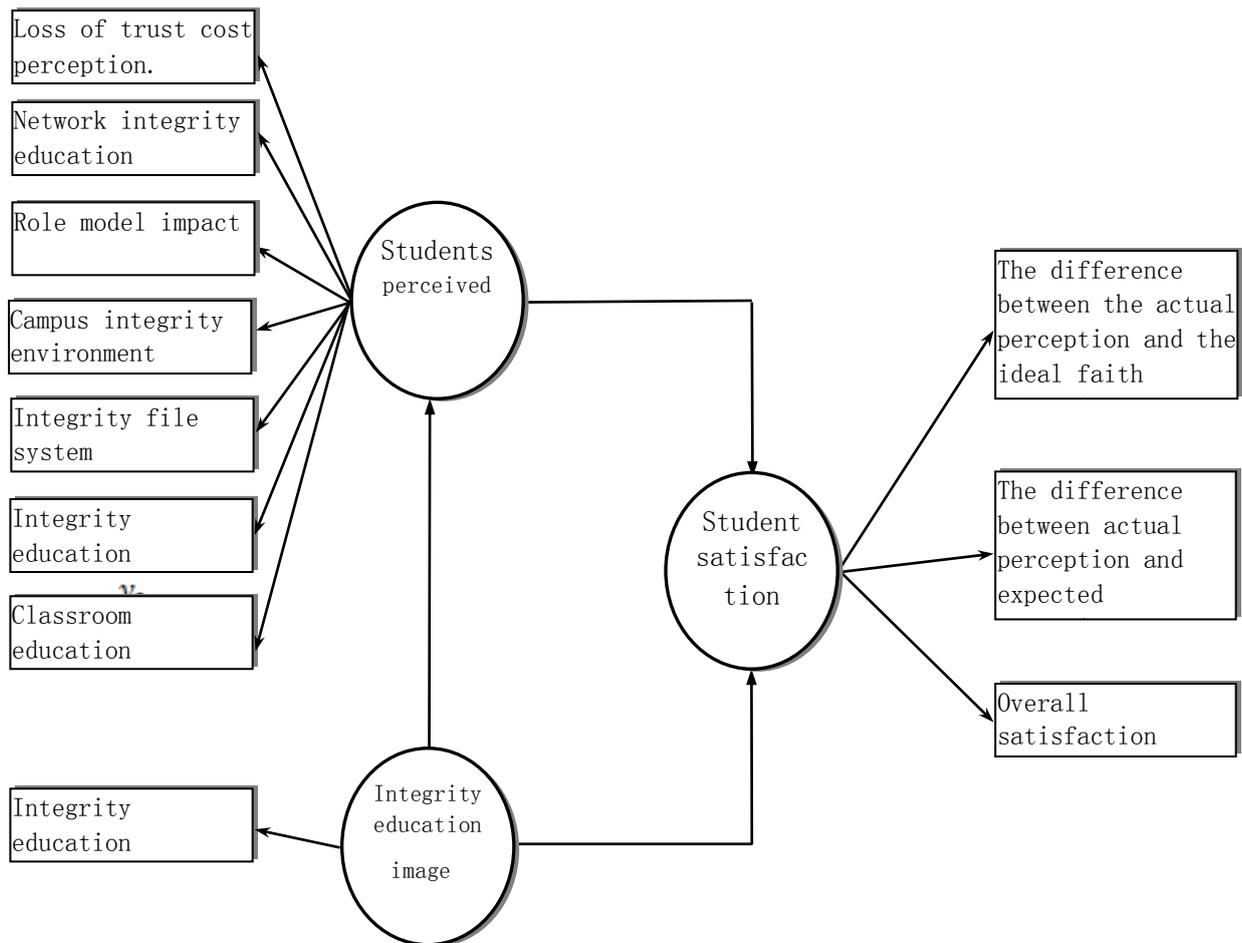
FIG. 2 students' integrity education student satisfaction index model

The structural variables in the students' good faith education students' satisfaction index model include honesty education image, student perception and student satisfaction, which are collectively referred to as hidden variables(Latent Variable),It's not directly observable[5][6],It needs to be represented by different quantities of observed variables, which can also be called explicit variables(Manifest variable)[7][8],It is a variable that can be directly observed by questionnaireBy investigating students' opinion, we can know the good faith education image observation by college students' overall impression of integrity education, the students the actual perception of integrity education classroom education perception, the good faith education activities from the credit archives awareness, institutional constraints, the environmental impact of the absence of credibility, integrity model influence, and network integrity education awareness and perception 'seven aspects to observe, student satisfaction by actual perception with ideal integrity education difference, the actual perception compared to anticipated three aspects to measure the difference and overall satisfaction.College students' honesty education student satisfaction index only affect other variables in the model, not affected by the change of other variables variable is called an exogenous variable, because of the change of other variables affected by variables as endogenous variables[9]Chengxin. Model education image will not be affected because of the

change of other hidden variables, belongs to the exogenous variables, the students awareness and student satisfaction will because of the change of other hidden variables affected, they all belong to the endogenous variables. It can be seen that there are linear structural equations between the implicit variables and implicit variables in the model and the explicit variables that explain it.24/5000

The regression relationship between the implicit variables of the student satisfaction index model can be expressed as:

$$\boldsymbol{\eta} = \boldsymbol{\beta}\boldsymbol{\eta} + \boldsymbol{\gamma}\boldsymbol{\xi} + \boldsymbol{\zeta} \tag{1-1}$$

The relationship between implicit variables and explicit variables of the students' satisfaction index model,

For exogenous variables:

$$\boldsymbol{X} = \boldsymbol{\lambda}_x \boldsymbol{\xi} + \boldsymbol{\delta} \tag{1-2}$$

For endogenous variables:

$$\boldsymbol{Y} = \boldsymbol{\lambda}_y \boldsymbol{\eta} + \boldsymbol{\varepsilon} \tag{1-3}$$

Among them $\boldsymbol{\xi}$ and $\boldsymbol{\eta}$ Represents the implicit variables in the model. $\boldsymbol{\Xi}$ Denotes the image of good faith education. It is not determined by the regression equation of the model. Other hidden variables cannot affect it. *HThe endogenous variables represent student perception and student satisfaction respectively. The equations are explained* η How does this change ξ or other η the influence of.X、Y for explicit variables, specifically, the data measured by questionnaires.β、γIs the regression coefficient of the system,λ_x、λ_y coefficient of implicit variables for explicit variablesζ、ε and δ is a random error.

The calculation and analysis of the model need to solve the coefficient of the path coefficient, the value of each implicit variable and the regression coefficient between the implicit variables. The value of the explicit variable was obtained by the design and production of the questionnaire. Based on the research results of existing user satisfaction index, partial least squares method is adoptedPLSComputational solution parameter[10],Specific calculation process utilization"User satisfaction index measurement software"and SAS（Statistical Analysis System）Software programming solution.PLSMethod integrating multiple dependent variable for multiple independent variables of regression modeling, canonical correlation analysis and principal component analysis, calculate it only once can be implemented at the same time prediction model, the correlation analysis between the two groups of variables as well as the realization of multivariate data system structure is simplified.PLSAdopt the method of regression to the student satisfaction index model of internal relations, the relationship between the hidden variables) and the external relations, the relationship

between the implicit variables and their corresponding variables) are optimized, make them to minimize the residual[11].

5. Evaluation and analysis of honesty education of college students.

5.1 questionnaire preparation.

The original data of students' good faith education student satisfaction index model was obtained by investigating students. The design of the questionnaire is carried out in five steps: questionnaire design preparation, questionnaire design, questionnaire design, questionnaire survey and final draft. The reliability analysis and validity analysis test the validity and reliability of the questionnaire, called the reliability research of repeatable degree, it is used to reflect the reliability of the evaluation questionnaire for middle school students, often on the basis of judgment results are accurate, calculation method of reliability for crowns Bach α The reliability coefficient method, under normal conditions, the reliability coefficient is 0.9 and above indicates that the reliability of the questionnaire is very good; Validity analysis usually adopts the method of multi-population variance hypothesis testing.[12]

The design and production of the questionnaire is based on the students' satisfaction index model of education. According to figure 2, there are 11 explicit variables used for observation in the model. The questionnaire USES a 10-point Richter scale to design 11 problems according to the 11 explicit variables of the model. The results of each question are scored on a scale of 1 to 10, and the more satisfied the students are, the higher the score is. At the three universities in chengdu, 400 students were randomly selected to issue questionnaires, 385 were collected, and 9 were rejected. The effective questionnaire was 376, and the questionnaire was 94 percent effective.

5.2 integrity education student satisfaction index model calculation

Model calculation is divided into two parts, the first part is the path analysis, by using data obtained from the questionnaire for each show the value of a variable, namely by using PLS path analysis, the 376 students of data input "user satisfaction index evaluation software", get show variable to explain the path coefficient of hidden variables as shown in table 1. By means of explicit variables and explicit variables to explain the path coefficients of implicit variables, the numerical values of implicit variables in the model can be obtained, as shown in table 2. After obtaining the value of the implicit variable, the second part adopts the PLS regression analysis, which is carried out in the statistical analysis software SAS, and the influence coefficient between implicit variables is calculated, as shown in table 3.

Table 1 shows the path coefficients of implicit variables in the model.

Hidden variables	Integrity education image ξ	Students perceived η_1							Student satisfaction η_2		
Show variable	x	y_1	y_2	y_3	y_4	y_5	y_6	y_7	y_8	y_9	y_{10}
Weight value	1	0.28	0.23	0.12	0.05	0.1	0.12	0.1	0.36	0.32	0.32

Table 2 values of implicit variables in the model

Hidden variables	Integrity education image ξ	Students perceived η_1	Student satisfaction η_2
Index value	8.17	7.95	8.04

Table 3 affects the relationship coefficient between implicit variables in the model

Hidden variables	Influence coefficient	Students perceived η_1	Student satisfaction η_2
image ξ	A direct impact on	0.78	0.63
	Indirect effects	-	0.65
	Overall impact	0.78	1.28
Students perceived η_1	A direct impact on	-	0.83
	Indirect effects	-	-
	Overall impact	-	0.83

As can be seen from the calculation results, integrity education image score was 8.17, students' perception score was 7.95, and students' satisfaction score was 8.04. It can be seen from this that the image of good faith education and student satisfaction score are all over 8, which is in a good level. Students' perception of honesty education has not reached 8, and there is room for improvement.

5.3 model variables and their impact relationship statistical analysis.

5.3.1 statistical analysis of explicit variable interpretation of implicit variables. Hidden variables in the model student perception by the variable class education, the good faith education activities, credit archives system, campus environment, role model influence, network education and integrity 'perception to explain, the path coefficient as shown in table 4. Can be seen from the table, the path of the seven show variable coefficient vary, the classroom education and honesty education activities

were 0.28 and 0.23, shows that colleges and universities to improve the students' satisfaction in good faith education, must be from the main channel of class and second class campus honesty culture activities, at the same time also note credit archives construction, network integrity education, shape integrity model and intensify faithless punishment. In terms of scoring, education, education activity and network integrity education scored more than 8, while the remaining four were still to be improved.

Table 4 students' perception of the corresponding explicit variable path coefficients and scores.

Show variable	Classroom education y_1	Integrity education activity y_2	Integrity file system y_3	Campus integrity environment y_4	Role model impact y_5	Network integrity education y_6	Loss of trust cost perception y_7
Path coefficient	0.28	0.23	0.12	0.05	0.1	0.12	0.1
score	8	8.12	7.23	7.89	7.93	8.25	7.86

Hidden variables in the model student satisfaction with explicit variable actual perception with ideal integrity education difference, the actual perception compared to expected to explain the difference and overall satisfaction, the path coefficient as shown in table 5. Can be seen from the table, three were similar, show the path of variable coefficient shows that colleges and universities to improve the students' satisfaction in good faith education, must from the good faith education close to the ideal good faith education, meet the students are looking forward to three aspects, the overall satisfaction. Among them, the difference between the students' actual perception and the ideal good faith education was 8, and the remaining two items needed to be improved.

Table 5. The explicit variable path coefficient and score of student satisfaction.

Show variable	The difference between the actual perception and the ideal faith education y_8	The difference between actual perception and expected comparison y_9	Overall satisfaction
Path coefficient	0.36	0.32	0.32
score	8	7.65	7.79

5.3.2 Statistical analysis of implicit variables and their effects.

From table 3, it can be seen that the image of credit education directly influences the degree of students' perception to 0.78, that is, students' perception changes by 0.78 percentage points with the change of education image by 1 percentage point. Image of honesty education directly affects the level of student satisfaction is 0.63, indirect

influence the level of student satisfaction is 0.65, so the overall effect is 1.28, the student satisfaction with the good faith education image changing 1% and 1%. Students perceive directly affects the level of student satisfaction is 0.83, no indirect effects, so the overall effect is 0.83, the student satisfaction with the student perception changing 1% and 1%.

6. Conclusion

From the perspective of educated students to carry out college students' honesty education evaluation, easy to master student's satisfaction with the good faith education in colleges and universities, is advantageous to the university student workers adjust the integrity education measures, solve the university student good faith education of educators are very enthusiastic, the students' good faith education and the actual satisfaction of the school are good, with the scores of 8.17 and 8.04 respectively. Students' real perception score of education is 7.95, which needs to be improved. The school can begin to strengthen students' integrity from seven aspects. College students' honesty education to be outside of school, family education and social influence, this article from the perspective of students to study the effect of honesty education of colleges and universities, later also can consider to family education and social influence on college students' honesty.

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