

A Study on the Adaptation of Students with Family Economic Difficulties Based on Big Data Methodology

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Keywords: Students with Family Economic Difficulties, Big Data Methodology, Adaptation, Identity.

Abstract: Support for students with family economic difficulties should not only be in material aids, but also in mental health. In the research, the big data methodology was used and a survey was conducted and analyzed by spss statistics and python software. The reason for students with family economic difficulties are more likely to suffer from mental problems is that poverty families is not only a difficulty, but also an identity. Identity has influence on adaptation, adaptation react on identity forming. Thus, the article analyzes the students with family economic difficulties in the adaptation period from the perspective of identity. Based on identity attributes, the article further discusses the identity transformation students meet in adaptation. Finally it is suggested to change the concept through multi-approach with the aims to help students correctly understand the relation between the self and others, success and failure, so that students with family economic difficulties can better adjust to the university life.

1 INTRODUCTION

Marx believed that nature endows individuals with basic material conditions and social development to promote them with all-round development. As constantly overcome the restriction of external forces and unreasonable social relations on human development, one gains greater freedom with better personal ability. Thus, he/her becomes "individual with personality (Marx 1995).

Family poverty is a major problem in the way of the development of students with family economic difficulty, especially during the university adaptation period. The gap, brings by family economy and strength, often takes psychological pressure on those students. This phenomenon is especially obvious in the early stage of university life. To be specific, negation of self-value and the derecognition of self-identity of students with family economic difficulties causes adaptation problem. Therefore, it is of great significance for students with family economic difficulties to correctly understand identity and deal well with the relation between self and group, righteousness and profit, right and wrong, success and failure at beginning so as to develop rational and peaceful healthy mentality to better adjust to the new circum-

stance. Theoretical basis: The internal linking of identity to the adaptation of students with family economic difficulties.

The identity theory (Tajfel 1978, Tajfel 1982, Abrams 2006, Yuan 2016) focuses on the position of an individual or a specific group in a specific social system. It includes the self-identification of individual and the social-identification to individual. First of all, identity theory is the existential question, that is, the question of "who am I" and "who are we", which is concerned about the manner or attitude of the groups or individuals respond to identity attributes in a rapidly changing social system. While the adaptation problem of students with family economic difficulties refers to how to integrate into the university circumstance with the field changes in the uncertain situation. In another word, the adaptation actually is the identity choice of individuals or groups in the face of uncertainties and changes, during which individuals will easily lose the sense of security and trust of their own identity and fall into crisis. Secondly, identity is a process, which is not achieved overnight. It is a process of social identity, composed of social categorization and social comparison. In the process of identification, in-group members maximize the similarity within the group to form the concept of "self" with the common identity within the group, while in-

ter-group members maximize the difference to promote the category. Students with family economic difficulties form their preconceived identity under the influence of social experience, social relations and growth cognition before entering university. During the adaptation period, it is inevitable to adjust themselves to the expectation of the new role given by the interpersonal group in the new circumstance. Finally, in the process of identification, individuals or groups will have the positive or negative in-group evaluation, which will ultimately affect the individual identity status and action strategy, which is true for students with family economic difficulties in adaption period.

2 ADJUSTMENT OF FRESHMEN FROM FAMILIES WITH FINANCIAL DIFFICULTIES TO COLLEGE LIFE

In the first semester, universities provide students with Impoverished Identification, including policy guidance, personal application, democratic evaluation, public announcement, and so forth, with the aims to accurately identify groups with family economic difficulties, so as to accurately fund and better educate students from poor families. In this article, students from poor families, students with family poverty or students with family economic difficulties similarly refer to the university students encounter financial difficulties for their families economic conditions is not good enough to others.

University students with family economic difficulties are composed of three core words, namely "family", "economic difficulties" and " university students". Family is an important cell of social structure, the importance component of human relations, reveals its social attributes, "economic difficulties" refers to a special group of students, these students difficulties is rooted not in spiritual barren or academic confusion, but in some time of economic difficulty, which brings out its group attributes," "university students" is an individual attributes, which is an important channel for individuals to change the economic status quo and undertake social responsibilities through higher education. In this aspect, higher education serve as a bridge in changing personal future and promoting individuals to undertake the responsibility for the nation and society. Obviously, identity of students with family economic difficulties is not a single existence, which not only contains the individual pursuit of students, but also the responsibility of individuals as family members and an important part of society.

Students from high school to university will face many new changes, prone to typical "social integration" problems, so for students with financial difficulties, is this change of identity and environment more impactful?

We conducted a questionnaire survey of 2,269 students at Fuzhou Jiangxia University and used software such as SPSS for statistical processing. The main contents of the questionnaire include the distribution of students' adaptation questions and the distribution of students' graduation intentions as shown in Table 1 and Table 2.

Table 1 the distribution of adaption questions for students

classification		no	learning	Future Development	Interpersonal relationship	Love & emotion	Significant difference
Other students	sample size	90	735	786	106	108	P<0.01
	percentage	4.5	38.59	40.23	5.69	6.32	
Students of poor family	sample size	8	120	85	11	11	
	percentage	2.5	46.35	33.23	3089	4.32	
poorer students	sample size	4	79	65	8	8	P<0.05
	percentage	2.6	43.56	35.26	4.21	4.15	
The poorest studnets	Sample size	4	44	25	4	4	
	percentage	5.2	50	29.36	4.36	4.65	

Table 2 the distribution of ideal jobs for students

classification		No idea	Graduate Student At home	Study overseas	Look for a job	entrepreneurship	Significant difference
Other students	sample size	201	1235	596	70	15	P<0.001
	percentage	9.89	58.93	30.23	4.53	0.96	
Students of poor family	sample size	28	196	30	24	5	
	percentage	10.23	70.23	12.35	9.01	1.68	
poorer students	sample size	17	135	25	18	1	P<0.001
	percentage	9.32	72.35	13.69	10.35	0.32	
The poorest studnets	sample size	12	62	6	77	4	
	percentage	13.25	69.24	6.89	13.58	4.89	

A personality test of 2269 poor students from poor families was conducted based on the Cartel 16 personality factor scale, and the test was conducted using DXC6 multi-group psychological assessment instrument. The test process is 50 minutes, and the data analysis is processed using the evaluator supporting software. The data analysis was conducted using SPSS 16.0, using a single sample t to test the test results of poor students from poor families and norm comparison of university students.

Then, the principal component discriminant equation analysis method is used to comprehensively quantify the scores of 24 factors such as group activity, intelligence and stability, and an evaluation model is established.

Analysis of the test results of 2,269 students from poor families found that 10 of them had mental disorders or mental illnesses. The mean squared error was used to analyze the 24 quantitative factors in Table 1, and the principal component quantification factors in the test results were extracted. Using the Fisher linear discriminant equation, the corresponding principal component coefficients can be obtained as shown in Table 2, and the established mental health model is shown in the following Equation.

$$\text{Mental health status}(Y) = 0.198 \cdot X1 + 0.276 \cdot X2 + 0.73 \cdot X3 - 0.146 \cdot X4 + 0.59 \cdot X5 - 12.3$$

The Y value calculated by the Equation is used as the judgment standard, and in order to select a more appropriate judgment standard, $Y \geq 0$, $Y \geq 1$ and $Y \geq 2$ are used as the standards respectively, and the key proportion, accuracy and the missed positive rate, false positive rate, sensitivity and specificity were

studied, and the results are shown in Table 3. The results show that when the standard value of Y is higher, the accuracy is higher and the false positive degree is lower. But when the standard is determined to be $Y \geq 4$, the focus ratio of the result is the highest, and the missed judgment rate is low and the sensitivity is the highest. Therefore, the final criterion adopted for this model is $Y \geq 0$.

Table 3 Coefficient of principal component discriminant equation

principal component		Normal	abnormal
Stability X1		0.399	0.599
Aggressiveness X2	X2	-3.568	-3.098
Worry X3		10.89	11.31
Tension		6.78	6.543
Adaptation and anxiety X4		22.8	23.24
Cowardly and courageous X5		8.08	10.45
Mental Health X6		42.3	38.76
Constant X7		-212.2	-231.9

Table 4 comparison of test scores of poor students and the norm test for college students

factor	Poor students	Norm	t
friendly	6.21±1.36	6.23±1.39	1.875
Clever	6.32±1.23	6.35±1.89	-1.156
Stable	7.36±1.56	7.39±3.36	47.89
Arrogant	5.36±1.39	5.96±1.63	-31.5
Excited	6.51±1.69	6.36±1.89	-45.36
Persistence	5.46±3.63	5.69±3.89	46.7
Bold	6.32±3.63	6.26±2.96	-24.97

Sensitive	5.23±2.36	5.63±2.65	15.96
Doubtful	4.75±3.26	4.89±3.63	50
Fantasy	5.23±1.26	3.86±1.67	-3.236
Anxious	5.46±1.36	3.69±1.69	55.63
Independent	4.43±1.23	3.86±1.56	25.69
nervous	6.23±1.56	4.85±1.51	43.27
creative	4.32±1.32	4.36±1.31	-7.36
achievement	5.23±1.23	6.32±1.54	53.23
emotional	5.23±1.32	6.23±1.21	-30.67

Table 5 Results of different criteria

criteria	Proportion	Accuracy rate	Missing rate	False rate	sensitivity	specificity
$Y \geq 0$	9.89	90.89	7.23	9.03	93.23	90.53
$Y \geq 1$	5.98	92.12	31.26	5.23	68.955	95.36
$Y \geq 2$	3.46	97.28	40.36	3.12	70.12	97.96

The students were tested and 202 students who may have psychological disorders were identified, and the results are shown in Table 4 and Table 5. The principal component quantification equation ↓ discriminant method was used to determine the psychological condition ↓ timing of 2269 poor students, and the accuracy was high. Among them, only 1 person was missed, and 202 people were found to have corresponding psychological disorders or mental illnesses. The sensitivity and specificity of the model were high, 92.45% and ↓90.43%, respectively. Since poor students from poor families are a group that we need to pay more attention to, they need to face greater economic, life, study and emotional pressure in their daily and academic life, so the psychological pressure will also be greater than that of their peers.

3 IDENTITY TRANSFORMATION: ADAPTABILITY PROBLEMS OF STUDENTS WITH THE FAMILY ECONOMIC DIFFICULTIES

The adaptation period, generally means the first year at university, is a critical period for the identification of students with the family economic difficulties. In the adaptation period, the self-orientation and other-orientation to the students with the family economic difficulties is directly related to the development of the students in future. Meanwhile the students confront with the identity transformation and disadvantage evaluation threats their identification.

3.1 Identity Insecurity—Loss the Sense of Identity Safety

The identification of self usually requires individuals or groups to form their own identity through social comparison and classification (Tajfel 1978, Tajfel 1982). The Impoverished Identification leads to the process of classifying students with the family economic difficulties. The social stereotype towards poverty is that economic weakness is equal to foolishness, laggard and is something that's going to scar students with the family economic difficulties. Moreover, stereotype leads to stigma when some students with family economic difficulties spend grants over the limitation or some students pretend to be poverty in order to be succeeded in getting the grants. Individual's behavior is enlarged to the group prejudice. Lacking in identity security, some economic disadvantaged individuals who are eligible for national funding policies give up the application to avoid any discrimination.

3.2 Identity Valuelessness—Loss the Sense of Identity Values

Individuals have needs to compare their opinions and abilities with others, especially when there is no objective standard. Social comparison often occurs between similar groups and lies in welfare, value and status, and so forth. In the process of comparing with other groups, the more similar the in-group is to the out-group, the more the individual hopes to get positive results, so as to obtain more positive social identity and self-esteem. Students with the family economic difficulties tend to compare with their peers. When they are not as good as others in interpersonal communication and academic adaptation, students with the family economic difficulties are inclined to owe problems to families economic difficulties. They start to underestimate their own ability, care about others' evaluation, participate in community activities without enthusiasm and initiative. The negative attitude to their own ability and the negation of family economic difficulties make students lose sense of identity value.

3.3 Identity Escape—Loss the Sense of Identity Belonging

If the advantages of their own group cannot be recognized or the disadvantages can-not be denied, members will tend to obtain higher social identity through social mobility or social change. Social mobility refers to a belief that the boundaries between

the groups are permeable. People can be with ease to 'pass' from one group to another (Abrams 2006). Education is an important channel for students to change their family economic poverty and 'pass' among groups, while students in the adaption period do not clearly perceive this. Negative identity evaluation urges students to get rid of impoverished identity immediately. Out of strong self-esteem, some students from poor family choose to flee and give up the relevant financial aid, or cover up the fact of economic poverty by spending extravagant spending without realizing it is the worst way but self-defeating or self-deception.

Identity and adaption actually mutual effect. Identity has influence on the mental experience and finally infects the adaption, while adaption is a critical period to pro-mote the identity forming.

4 SOLUTION APPROACH: THE WAY TO RESOLVE ADAPTABILITY PROBLEMS FOR STUDENTS WITH THE FAMILY ECONOMIC DIFFICULTIES

The purpose of understanding problem is to solve them. As we have already known the identity problems that students with the family economic difficulties facing during the adaptation period. The key to solve the problem lies in individual students, students groups and their inherent values, concepts, cognition, and so forth. Therefore, as long as grasp the critical period, turn the negative, passive bias into the positive, active acceptance, university can finally release the pressure on students with family economic difficulties, help students grow up harmoniously, which is also a basic way to realize the educational aim.

4.1 To Establish a Positive Campus Culture Circumstance

Stereotypes are generalizations about people based on category membership. It generally contains a fundamental and probably universal bias and attach derogatory label to outgroups and favorite one to ingroups. In addition to family poverty, the self-denial of in-group students with family economic difficulties derives from the stereotyped effect of out-group students on poverty. Stereotype does not come out and fade away overnight, which is rooted in

individual value, belief, experience, cognition, and so forth, thus moral education and culture influence play the importance role on mind shifting. On the one hand, fine traditional Chinese culture, Chinese revolutionary culture, advanced socialist culture should be inherited to inspire intelligence. The core socialist values should be promoted. Traditional Chinese virtue like diligence and thrift, the spirit of arduous struggle, and so forth, should be integrate into campus daily life to resolutely resist the bad behavior of extravagance and waste, so that students could be guided to establish a correct and scientific consumption view and correctly understand the truth between the rich and the poor. On the other hand, helping students from poor family understand that higher education is an important channel for individuals to change their destinies and realize their aspirations. All the promotion channels in universities are fair. As long as individuals remain working diligently and zealously, they can realize their dreams.

The improvement of interpersonal relations among peer groups such as classes, dormitories and communities are another important aspects of moral education and the construction of campus culture, which is called as peer education. Peers refer to people with similar age, similar study, life or common language tend to share information, content and experience together. Their moral education function lies in that the close interpersonal interaction of peer groups has an important influence on the psychology of students with family economic difficulties, so as to achieve the educational goal of changing the relevant thoughts and behavior rules of the educational object. Therefore, universities should focus on the role of class and dormitory in peers to create a good interpersonal circumstance of mutual respect and mutual trust. As the organization of various group activities to optimize this interpersonal relationship, it is much beneficial for students from poor families to reduce their depression and enhance their communication ability.

4.2 To Unite Individual Ideals with National Dreams

All lofty ideals should be based on reality and all great ideals should be based on the premise of actual development of individuals. Individuals internalize the dominant ideology and identify with these externally designated categories, they acquire particular social identities which may mediate evaluatively positive or negative self-perceptions, which is partly constructed by subjective belief

structure (Abrams 2006). There are two broad types of subjective belief structure to build, namely social mobility and social change. The biggest difference lies in which is beliefs whether the boundaries are permeable or not. Social mobility reminds that students with family economic difficulties should be guided to realize that the boundaries between groups are permeable, so that individuals can change the current status quo through working diligently, and they are expected to abandon the subordinate social identity and its attached negative attributes. Social change reminds students to choose different dimensions of comparison through social creativity. That is, set excellent student examples in student groups. As these students become examples is not because of wealth but because of their achievement through hard-working, students with family economic difficulties are reminded of fighting to gain a promising future.

In addition, students with family economic difficulties may face different degrees of adaptation problems in the whole college stage. Therefore, it is necessary to grasp the law of adaptation and extend the period of adaptation education, with freshman as the key period, sophomore and junior as the consolidation period, and senior as the extension period. Adaptability education should be carried out at each stage to promote the adaptation ability of students with family economic difficulties. During campus life, students should be informed of the close relationship between individuals and nation, so that students could understand that all personal ideals must be placed in the category of the nation and society needs.

5 CONCLUSION

The education of students with family economic difficulties is a main point in university students' management. The focus of the education for those students is not only to reliving economic pressure, but also to build mental health. Nevertheless, the reason for students with family economic difficulties are more likely to suffer from mental problems is that poverty families is not only a difficulty, but also an identity, which will take a lot of pressure on individuals. Caused by bias and prejudice from other students groups, inferiority feelings in students with family economic difficulties involve a kind of negative mental experience.

Hence, we choose to study the students with family economic difficulties in adaptation period from the perspective of identity, the purpose is to

reify students with family economic difficulties students support mechanism. In the perspective of identity, this article analyzes identity attributes and the problems the students with family economic difficulties meet in adapting to the stage at the university. In the university field, students with family economic difficulties is an identity. It has individual, group and social attributes. At the same time, it involves economic capital, social capital and cultural capital together but unevenly. The identity is dynamic change and relative stability. Due to the influence of social comparison, classification and differentiation factors, students with family economic difficulties have problems of identity insecurity, identity valueless and identity escape, which all lay hidden dangers for the follow-up problems of students with family economic difficulties. Universities should make use of freshmen orientation and invite the senior students to share and exchange experience to help students better understand characteristics of university life. Chinese advanced socialist culture should be inherited to inspire intelligence, on which peer education plays an important role in creating the harmonious atmosphere in helping students build up confidence. As the builders of nation in future, students should be informed of the close relationship between individuals and nation, so that they can clearly set aims high and keep feet on the ground firmly, devote themselves to China modernization.

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