# Social Development Evaluation for College Students in Dalian, China

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## Abstract

**Based on the differences in individuals and the Emerging Adulthood Theory, this paper discusses the social development of college students. Aiming at the problems like interpersonal tension, poor independence, poor self-control ability, social adaptation difficulties and so on, an evaluation scale of college students' social development with 6 dimensions and 31 indicators is established. Then through the questionnaire survey and data analysis of 3,000 college students in Dalian, China, it is found that the level of social development of these college students is moderate; Among them, the growths of social mood and emotion, social behavior and ability, self-awareness and self-knowledge are delayed, while the developments of social norm cognition and ability, social values, interpersonal interaction behavior and ability are normal. Finally, the retardation analysis and difference analysis are adopted to explain what factors lead to the unbalanced social development of college students respectively.**

## Keywords

**College student development; Social development; Scale design; Difference analysis.**

## 1. Introduction

Social development is a process in which individuals gradually master social norms, form social skills, learn social roles, control their behaviors as well as coordinate relationships in interpersonal communication and social interaction [1]. And for college students, it's based on their early growth experiences [2]. On the one hand, with social practices, college students continue to acquire basic skills to effectively participate in social life through systematic study in college; On the other hand, by the dual approaches of studying and practice, college students integrate with what they have recognized and accept the political beliefs, ideological systems, social norms and behavior patterns respected by the society, then develop their own values, their outlooks on life and morality. As a result, college students may employ the existing knowledge, skills and experiences to solve problems and smoothly play the role expected by society, so that achieve their social development. However, because of many reasons, the general level of social development of contemporary college students in Dalian is limited, and numerous problems have been exposed.

As mentioned earlier, social development is continuous at different stages; This means students' social development differences have already existed before they formally enter the university stage. Moreover, these differences between individuals are not always reduced by the higher education students receive in college; Conversely, they are sometimes amplified by different growth paths individuals take at schools. In addition, Arnett's Emerging Adulthood Theory holds that 18-25 years old is the transition stage from late youth to adulthood and the period when an individual's youth has basically ended, but he or she cannot yet undertake social responsibilities as a mature individual. In this stage, the levels of individual knowledge and intelligence surpass the psychological and physical developments, which becomes an important and special phase of individual social development [3]. Moreover, some college students in Dalian reported multiple problems such as immature dialectical thinking, low attention to social issues, poor self-control ability, and even social adaptation difficulties due to differences in the level of their social developments, as well as the delay in someone's social participation caused by earlier physiological maturity and higher education. Through literature review and interviews, it is found that the doubt about the general level of social development of college students is mainly presented in six aspects: social mood and emotion, social norms cognition and ability, social values, interpersonal interaction behavior and ability, social behavior and ability, as well as self-awareness and self-knowledge. And in recent years, with the in-depth publicity of "Quality-oriented Education", more attention has been paid to the general social development of college students [4]. Therefore, it is much urgent to evaluate the social development level of college students from the six core aspects.

At present, the ways of evaluating social development mainly focus on scale method, social measurement method, interview method, behavior observation method, projection method and so on. For different research objects, the evaluation methods are also different. From previous studies, it's revealed that the social development of college students was mostly evaluated by self-reported scale, so this study will also utilize this method to measure and assess this object.

This study designs the "Social Development Evaluation Scale for College Students" through expert interviews, literature research and so on, to evaluate the current situation of college students' social development. After that, the also designed "Social Development Scale Questionnaire for College Students" is distributed to collect further information from college students in Dalian. To calibrate the questionnaire designed in this thesis for conforming to general requirements of the scale method, one pre-investigation has proceeded with samples collected from universities at all levels in Dalian. Finally, the actual status of social development of college students in Dalian can be obtained by analyzing the formal survey data, and difference analysis is conducted to find out the influential variables.

## 2. Scale Design

### 2.1. Structural Design

In the existing studies, aspects like social norms, social behaviors, social values, social participation ability and interpersonal interaction ability have been quoted by numerous scholars to measure the development level [5,6]. Many other scholars regard social adaptability, social and moral rules, interpersonal relationships, self-control ability, self-awareness and self-education, and social cognitive ability to be included in the contents of social development of college students [7,8,9]. In terms of selecting proper evaluation indicators, items like mood and emotion, rule compliance, peer communication, competition and cooperation, social communication skills, empathy, and role bearing ability have been widely applied [10]; In addition, considering the effectiveness of recognizing different people's development levels, the use of a balanced complete process of screening is preferred over the traditional screening

process [11]. In other words, during the design of the questionnaire, this study should not only pay attention to positive indicators, but also apply negative indicators which are much more significant.

Based on the existing research results and expert interviews, six dimensions including social mood and emotion, social norm cognition and ability, social values, interpersonal interaction behavior and ability, social behavior and ability, self-awareness and self-knowledge, along with 31 indicators were adopted to measure the social development of college students, resultantly the "Social Development Evaluation Scale for College Students" was compiled. The scale is shown in Table 1.

**Table 1.** Social development evaluation scale for college students.

| First-level indicator | Second-level indicator | Third-level indicator |
| --- | --- | --- |
| Social development of college students | Social mood and emotion | Mood state in general |
| | | Mood state in special circumstances |
| | | Social responsibility |
| | | Prosocial emotion |
| | | Empathic ability |
| | Social norm cognition and ability | Situational cognition ability |
| | | Compliance with group rules |
| | | Compliance with social rules |
| | | Role identification |
| | | Ability to understand social and moral rules |
| | | Ability to distinguish the motivation and consequences of behavior |
| Social development of college students | Social values | Ideological and moral character |
| | | Social awareness |
| | | Inheritance of mainstream culture |
| | | Recognition of mainstream values |
| | Interpersonal interaction behavior and ability | Competitiveness and cooperation |
| | | Interpersonal handling ability |
| | | Language skills |
| | | Non-verbal skills |
| | | Ability to understand and adopt others' opinions |
| Social development of college students | Social behavior and ability | Ability to take care of oneself |
| | | Ability to solve problems independently |
| | | Ability to adapt to the ever-changing social environment |
| | | Persistence of behavior |
| | | Decisiveness in dilemma situations |
| | | Ability to overcome difficulties |
| | Self-awareness and self-knowledge | Self-knowledge |
| | | Self- attribution |
| | | Self-esteem and self-confidence |
| | | Self-regulation of behaviors |
| | | Self-regulation of emotions |

## 2.2. Dimension Description

Social mood and emotion. This is an important way for individuals to communicate with their surroundings. College students convey their feelings by expressing emotions to other members of society, and understand them by judging their feedback.

Social norm cognition and ability. Social norms are the rules of individual social behaviors and the customs of social activities, their essence is the reflection and the concrete manifestation of social relations. The identification of social norms first makes individuals conform with them in cognition, emotion and behavior, resulting in voluntary compliance afterwards.

Social values. Ideological and political educations can influence college students' recognition of social values and further promote their social development. Every era has its unique mainstream culture, and traditional culture is an important supplement. Inheriting the essence of traditional culture is conducive to strengthening college students' cultural identity, which contributes to their acceptance of mainstream social values.

Interpersonal interaction's behavior and ability. Interpersonal interaction is the interchange of some psychological factors like information and emotions, as well as the interchange of behaviors and actions between people. College students' interpersonal interaction mainly includes communications with groups like relatives, teachers and classmates. The cooperation and competition between college students and their peers, especially classmates and dorm mates, are the major contents of college students' interpersonal interaction, and also one of the core criteria to judge the level of their social development.

Social behavior and ability. Social behavior and competence are the sums of the behavior customs and capacity methods formed in the process of individual socialization development, and are the basic elements in the evaluation scale of college students' social development.

Self-awareness and self-knowledge. They give individuals the tools to recognize external objective things, help them constantly examine and improve themselves, so that individuals can subjectively realize self-transformation, and continuously promote and develop their personality.

## 2.3. Questionnaire Formation

The social development evaluation scale for college students designed in this paper was composed of highly-refined multiple sub-scales like the Social Development Scale for Children proposed by Chen Huichang (40 factors in 9 dimensions, 120 items), Adolescent Social Development Scale, College Student Social Development Scale (cognition-emotion-behavior) proposed by Liu Jianrong, Chinese College Student Adaptation Scale proposed by Fang Xiaoyi, Six Factors of Social Intelligence Test proposed by Guiford, etc., and simultaneously, integrated with the characteristics of college students' social development to optimize its contents. Firstly, the dimensions in the scale were all refined and integrated. Afterwards, experts previously engaged in relevant research were interviewed, and the contents that should be incorporated into the social development of college students were discussed, forming a drafted questionnaire including about 70 questions. Subsequently, 30 undergraduates were invited to pre-answer the drafted questionnaire and their feelings were recorded afterwards; Then the 17 items that were deemed vaguely expressed or hard to answer in the questionnaire were rectified, and the 8 detailed items with low differentiation in the answer were merged into 3 general ones to form an initial scale containing 65 items. Through a following small range of pre-investigation, more items with low discrimination in analysis (CR < 3, sig. > 0.05) were also deleted or modified, and the reliability and validity of the initial scale were further tested. Finally, the "Social Development Scale Questionnaire for College Students" was completed with 6 dimensions, 31 indicators and 59 items.

## 3. Pre-investigation and Analysis

## 3.1. Data Collection

In this study, about 495 college students have been randomly selected from universities at all levels in Dalian to participate in the questionnaire survey. The pre-investigation focused on the

coverage and diversity to ensure the accuracy and objectivity of the empirical research [12]. Among them, 467 valid questionnaires were retrieved with effective recovery of 94.34%. The total number of data samples is 467, including 323 males and 144 females. In terms of grades, there are 207 freshmen, 34 sophomores, 145 juniors and 81 seniors, respectively. Divided by majors, the respondents include students individually majoring in engineering, science, business and liberal arts. As for the family structure, 75.4% of the respondents come from nuclear families; In addition, 70.1% of those surveyed are the only-child. The statistical result is listed in Table 2.

**Table 2.** Statistical table of survey samples.

| Classification | Item | Number | Proportion |
|---|---|---|---|
| Gender structure | Male | 323 | 69.2% |
| | Female | 144 | 30.8% |
| Grade Structure | Freshman | 207 | 44.3% |
| | Sophomore | 34 | 7.3% |
| | Junior | 145 | 31% |
| | Senior | 81 | 17.4% |
| Profession Structure | Engineering | 192 | 41.1% |
| | Science | 149 | 31.9% |
| | Business | 25 | 5.4% |
| | Liberal Arts | 101 | 21.6% |
| Family structure | Nuclear family | 352 | 75.4% |
| | Single parent family | 64 | 13.7% |
| | Stem family | 51 | 10.9% |
| Only-child or not | Yes | 327 | 70.1% |
| | No | 140 | 29.9% |

## 3.2. Reliability and Validity Analysis

### 3.2.1. Reliability test

Internal consistency reliability is one of the most widely used methods in questionnaire reliability analysis. It can measure the consistency of the internal structure of the questionnaire and can be applied to study multi-dimensional conceptual problems. At present, Cranbach's α coefficient proposed by Kronbach is commonly adopted to measure the internal consistency of questionnaires. In this study, the reliability analysis function of SPSS22.0 software was utilized to measure the α values of the scale as a whole and 6 different dimensions respectively. The result is shown in Table 3.

**Table 3.** Reliability index of the questionnaire of social development evaluation scale for college students.

| | Overall | SE | SN | SV | II | SA | SC |
|---|---|---|---|---|---|---|---|
| Cranbach's α coefficient | 0.979 | 0.906 | 0.973 | 0.940 | 0.913 | 0.753 | 0.862 |

As a result, the general α coefficient of the scale is 0.979, and the individual α coefficients of social mood and emotion, social norm cognition and ability, social values, interpersonal interaction behavior and ability, social behavior and ability, as well as self-awareness and self-knowledge dimensions, are: 0.906, 0.973, 0.940, 0.913, 0.753, 0.862, respectively. In general, if Cranbach's α coefficient is above 0.6, the research is considered to be highly reliable. Among

these statistics, the α coefficient of social behavior and ability is relatively low, but those of the total scale and each sub-scale are all greater than 0.7, so the research presents high reliability.

### 3.2.2. Validity test

Exploratory factor analysis identifies the degree to which the evaluation scale can effectively measure the social development level of college students. Firstly, KMO and Bartlett tests were separately performed to prove if the sample scale could meet the requirements and whether the data was suitable for exploratory factor analysis. Therefore, SPSS22.0 software was applied to extract factors from the questionnaire data of Social Development Evaluation Scale for College Students, and the KMO value was found to be 0.909; Furthermore, the Bartlett test results were significant ( $\chi^2$ was 6141.224, DOF was 1711, Sig. was 0.00). Then, the dimension of the scale index was reduced by the method of principal component analysis, and the load matrix was orthogonally rotated by the maximum variance method. After 8 times of iteration, the six main factors were extracted, and their eigenvalues were found all greater than 1, while the cumulative contribution rate of variance was determined as 69.368%. The data manifested that the extracted six common factors presented sufficient ability to explain the major characteristics of the scale variables, and to comprehensively indicate the social development level of college students. To sum up, the Social Development Evaluation Scale for College Students can be composed of these 6 dimensions and 59 descriptive items.

The result of factor analysis shows that the factor load value of each dimension of college students' social development is ranging between 0.5-0.9. The dimension of social mood and emotion includes 12 items, the one of social norm cognition and ability contains 12 items, the social values dimension contains 7 items, the one of interpersonal interaction and ability contains 10 items, the dimension of social behavior and ability contains 10 items, the one of self-awareness and self-knowledge contains 8 items, respectively. The six main factors above jointly reflect the level of social development of college students; In addition, each factor and item shows a great content orientation, which conforms to the presupposition mentioned above. Therefore, the theoretical framework of this study is validated and supported by empirical data.

## 4. Scale Application and Case Analysis

### 4.1. Sample Collection

The compiled "Social Development Scale Questionnaire for College Students" was put through investigation, and about 3000 college students were randomly selected in Dalian to participate in the questionnaire survey. 2881 effective questionnaires were retrieved with effective recovery of 96.03% by the online and on-site distribution methods. Specific statistics were shown in Table 4 below. To ensure the objectivity of the survey, in the process of sample selection, the basic factors such as gender, grade, and major of the sample were kept in balance. The total of samples was 2881, including 1465 males and 1416 females. There were 748 freshmen, 731 sophomores, 743 juniors and 659 seniors, respectively. The respondents included students individually majoring in engineering, science, business and liberal arts. Plus, 76.12% of the students came from nuclear families, and 73.65% of those surveyed were the only-child.

**Table 4.** Statistics for the survey in case application.

| Classification | Item | Number | Proportion |
|---|---|---|---|
| Gender structure | Male | 1465 | 50.85% |
| | Female | 1416 | 49.15% |
| Grade Structure | Freshman | 748 | 25.96% |
| | Sophomore | 731 | 25.37% |
| | Junior | 743 | 25.79% |
| | Senior | 659 | 22.88% |
| Profession Structure | Engineering | 762 | 26.45% |
| | Science | 801 | 27.8% |
| | Business | 730 | 25.34% |
| | Liberal Arts | 588 | 20.41% |
| Family structure | Nuclear family | 2193 | 76.12% |
| | Single parent family | 212 | 7.36% |
| | Stem family | 476 | 16.52% |
| Only-child or not | Yes | 2122 | 73.65% |
| | No | 759 | 26.35% |

## 4.2.  Evaluation Results

"Social Development Scale Questionnaire for College Students" adopts the form of a 5-level Likert scale, with points ranging from 1 to 5. The higher the score is, the more the item fits the actual situation of the respondents. There are both positive and negative indicators within the questionnaire: the higher the positive score is, the better the social development of respondents is, and vice versa. In this study, negative standardization is also adopted to deal with the reverse items.

According to the meaning of these 5-level scores, the score of 3 is regarded as the boundary between developmental delay and normal development. Thus, the social development level of college students can be divided into four types: serious retardation, retardation, medium and good levels. The higher the score is, the better the general social development of college students is. In addition, the test results can also individually reflect the score and development level in each dimension. For different dimensions, the scores of respondents can be obtained respectively. The scores of 0-2 indicate that the development level of college students in this dimension is much sluggish; The scores of 2-3 illustrate that the development level is relatively sluggish; The scores of 3-4 prove that the development level is medium; The scores of 4-5 demonstrate that college students' socialization is developing well in this dimension.

**Table 5.** Statistical analysis of college students' social development evaluation's scale questionnaire.

| | Overall | SE | SN | SV | II | SA | SC |
|---|---|---|---|---|---|---|---|
| Mean | 3.4194 | 2.7036 | 4.3625 | 4.3358 | 4.1773 | 2.5567 | 2.1576 |
| Median | 3.4576 | 2.7500 | 4.4167 | 4.4286 | 4.2000 | 2.6000 | 2.1429 |
| Mode | 3.68 | 2.58 | 4.95 | 4.879 | 4.20 | 2.80 | 2.00 |
| Standard deviation | 0.63285 | 0.71169 | 0.76632 | 0.76794 | 0.64299 | 0.55263 | 0.70875 |
| Variance | 0.400 | 0.507 | 0.587 | 0.590 | 0.413 | 0.305 | 0.502 |
| Minimum | 4.879 | 4.20 | 2.80 | 1.00 | 1.50 | 0.90 | 0.43 |
| Maximum | 4.25 | 3.75 | 5.00 | 5.00 | 5.00 | 3.60 | 3.29 |

According to the analysis in Table 5, the average level of social development of college students in Dalian is 3.4, the median is 3.45, and the mode is 3.68, respectively. On the whole, the social development level of college students in Dalian is at the medium level. From each dimension,

the development levels of social mood and emotion, social behavior and ability, self-awareness and self-knowledge all show relative retardation while those of social norm cognition and ability, social values, interpersonal interaction behavior and ability exhibit good tendency.

## 4.3. Analysis for Retardation

Social development is a dynamic process from external intervention to internal promotion. It not only includes the interference and guidance from the external environment, but also contains the individuals' reflection and feedback to the environment. The educational guidance provided by the external environment and the self-education internalization of the educated individual complement each other and are both indispensable. Notably, social development retardation is sometimes caused by disharmony among educators, educated individuals and the educational environment. This section focuses on the hysteresis of self-awareness and self-knowledge, social mood and emotion, social behavior and ability, and analyzes the causes behind it mainly by considering individual, family and campus factors.

### 4.3.1. Self-awareness and self-knowledge's Retardation Analysis

Self-awareness and self-knowledge are the continuous attention paid to the individuals' physical and psychological activities, mainly including the change of self-psychological characteristics and the cognition of the relationships between themselves and others. So it is relevant to the degrees of self-evaluation, self-adjustment and self-control ability of college students. Among them, the poor self-control ability tends to affect the behavioral and emotional regulations of college students the most, leading to the retardation result.

College students are at impulsive ages, thus they're inclined to make emotional judgments about reality, so their abilities of behavioral and emotional controls are relatively weak. For example, they tend to get impetuous indiscriminately when encountering troubles, which is a manifestation of the loss of behavioral and emotional controls, while self-control means that they will make rational judgments and deal with the situation after analyzing the facts. Self-control ability can help college students release their emotions in controlled time through reasonable venting, environment shifting and attention transferring, so that maintain emotional stability and avoid impulsiveness. The loss of it can more or less lead to the retardation of self-awareness and self-knowledge.

### 4.3.2. Social Mood and Emotion's Retardation Analysis

Social mood is the psychological and physiological state sourced from a variety of individual feelings, thoughts and behaviors, while social emotion is the complex and steady physiological evaluation and experience of individuals. Mood and emotion are two of the ways for people to transmit information within society and organizations. Through mood expression and emotional resonance, people can share their inner feelings with others, and judge the state of others at the same time. Family is an important place for children, and the family atmosphere is particularly significant for their future developments of social mood and emotion. Family atmosphere is reflected in the degree of intimacy between children and their parents. In those harmonious families, children are closer and more communicative with their parents, but vice versa.

A disharmonious family atmosphere will hinder children from maintaining a good state of mood and emotion in peacetime, and make children in special circumstances fail to vent their negative emotions, resulting in loss of emotional control. Children who lived in a depressed family atmosphere can hardly get rid of the negative shadow, which affects their developments of social mood and emotion even after entering universities. In addition, a disharmonious family atmosphere makes it difficult for children to learn things from the perspective of others, to communicate, cooperate, understand, support, and gain emotional empathy with others.

These negative effects cause university students to partially lose the ability of two-way communication, thus inhibiting their social developments.

### 4.3.3. Social Behavior and Ability's Retardation Analysis

In social communication, there are always certain forms of communication and contact between university students. In this process, students interact with and influence each other, resulting in a variety of behavioral patterns. The social behavior and ability of students are responses to external stimuli and their own feelings. The delay in social behavior and ability indicates certain problems interfering with the social behavior and social adaptation of university students. Furthermore, the problems may partially come from excessive parental controls over their children.

Contemporary university students are vulnerable to excessive protection from their families, which leads to a delay in their social development. For a long time, parents in our country have paid too much attention to their investments on their children's academic education, but neglected the children's social education. To impel children to concentrate on their studies, parents overly restrict their children's freedom, and even disallow children to contact the society at right time, so as to assume that children will not be adversely affected by the outside world. Some parents dote on their children and care too much about their daily lives, which leads to the lack of self-care ability, adaptability to the environment and interpersonal skills in many of these kids at universities, and further curbs the developments of their social behavior and ability.

## 5. Discussion

From previous analyses, it can be concluded that although the general social development level of college students in Dalian is medium, the development level of each dimension is uneven. Moreover, this thesis comprehensively considers influences from individual and family factors on dimensional retardation. However, this paper has not considered the specifics of each factor. For example, in terms of the campus factor, this paper still needs to investigate whether some important internal variables like majors have essentially contributed to the social development difference, so that identify more detailed reasons for the revealed social development level of college students. Therefore, this section adopts the method of one-way ANOVA to conduct difference analysis on these internal variables.

### 5.1. Campus Factor Analysis

● Major Analysis

The samples were divided into engineering, science, liberal arts and business groups for statistical analyses. Table 6 shows that the average scores of social development of college students in the four above majors are 3.48, 3.38, 3.32 and 3.52, respectively. Among them, students majoring in liberal arts rank the lowest, while those majoring in business rank the highest.

**Table 6.** Profession statistical analysis.

| Profession | Average | Standard deviation |
|---|---|---|
| Engineering | 3.4830 | .52629 |
| Science | 3.3893 | .79400 |
| Liberal Arts | 3.3180 | .63192 |
| Business | 3.5221 | .26757 |

It can be seen from Table 7 that the coefficient of significance in the four major groups is greater than 0.05, indicating that majors exerted no significant influence on the social development of college students. It is generally believed that liberal arts and business students are better at interpersonal communication because of their major curriculum and future career requirements. However, with the development of quality-oriented education, increasing attention has been paid to the students' development in general. At present, universities are actively encouraging students to take interdisciplinary courses, as well as attaching importance to the integration of different majors, so that students' comprehensive ability from different majors could gradually improve, and the development level of students with different majors would be convergent. Therefore, the traditional view that the social development levels of college students of different majors are significantly different isn't valid, nor is the opinion that the social development levels of college students majoring in liberal arts and business are higher than those of students majoring in science and engineering.

**Table 7.** Profession ANOVA analysis

|  | TSS | Df | Mean Square | F | Significance |
|---|---|---|---|---|---|
| Between groups | .459 | 3 | .153 | .374 | .772 |
| Within groups | 37.989 | 2878 | .408 | | |
| Total | 38.447 | 2881 | | | |

● Grade Analysis

The samples were also divided into freshmen, sophomores, juniors and seniors for statistical analyses. It can be seen from Table 8 that the average scores of social development of university students in the four grades are 3.22, 3.34, 3.53 and 3.63, respectively. And it's significantly obvious that the social development level of college students rises with the increase of the grade.

**Table 8.** Grade statistical analysis.

| Grade | Average | Standard deviation |
|---|---|---|
| Freshmen | 3.2286 | .72619 |
| Sophomores | 3.3405 | .31827 |
| Juniors | 3.5288 | .58514 |
| Seniors | 3.6341 | .42012 |
| Total | 3.4194 | .63285 |

It can be found from Table 9 that the coefficient of significance is less than 0.05, indicating that grades presented a significant impact on the social development of college students. On the one hand, with the growths of students' age, physiological maturity and life experience, the level of their social development will also improve; On the other hand, through the continuous penetration of university education, the social development of students often obtains a significant improvement. Therefore, the viewpoint that the social development levels of college students at different grades are significantly different can be established.

**Table 9.** Grade ANOVA analysis.

|  | TSS | Df | Mean Square | F | Significance |
|---|---|---|---|---|---|
| Between groups | 2.938 | 3 | .979 | 2.564 | .039 |
| Within groups | 35.510 | 2879 | .382 | | |
| Total | 38.447 | 2881 | | | |

## 5.2. Campus Factor Analysis

● Only-Child Analysis

The samples were divided into the only-child group and the non-only-child group for statistical analyses. It can be seen from Table 10 that the average score of social development of the only-child students is 3.4164, while that of the non-only-children is 3.4268. Thus, the mean difference between the two is 0.0105, which is significantly small.

**Table 10.** Only child or not statistical analysis.

| Only child | | Score |
|---|---|---|
| No | Average | 3.4268 |
| | Standard deviation | .60351 |
| Yes | Average | 3.4164 |
| | Standard deviation | .64865 |
| Total | Average | 3.4194 |
| | Standard deviation | .63285 |

According to the results in Table 11, the coefficient of significance is greater than 0.05, indicating that being an only-child or not exerted no significant influence on the social development of college students. It reflects that people's stereotype of only children's better social development has not been supported by statistical data. On the other hand, in recent years, an increasing number of scholars have found that the differences between the only-child and non-only-child are not significant, because there are no statistically significant distinctions in their personality, social interaction, adaptability and other aspects. And with the development of the national economy, both the only-child and the non-only-child can enjoy abundant resources from their families.

**Table 11.** Only child or not ANOVA analysis.

| | TSS | Df | Mean Square | F | Significance |
|---|---|---|---|---|---|
| Between groups | .002 | 1 | .002 | .005 | .942 |
| Within groups | 38.45 | 2880 | .405 | | |
| Total | 38.47 | 2881 | | | |

● Family Structure Analysis

The samples were simultaneously divided into three groups according to family structure: nuclear family, single-parent family and trunk family. As shown in Table 12, the average scores of social development of university students from the above three types of families are 3.44, 3.23 and 3.49, respectively. Among them, students from single-parent families present the lowest level of social development, while those from trunk families achieve the highest level.

**Table 12.** Family structure statistical analysis.

| Family structure | Average | Standard deviation |
|---|---|---|
| Nuclear family | 3.4407 | .63486 |
| Single-parent family | 3.2386 | .78095 |
| Trunk family | 3.4915 | .39928 |
| Total | 3.4194 | .63285 |

It can be seen from Table 13 that there is no significant difference in social developments of college students with three family structures, and the coefficient of significance is greater than

0.05. Therefore, the traditional opinion that family structure has a significant impact on the social development of college students is not valid either.

**Table 13.** Family structure ANOVA analysis.

|                | TSS    | Df   | Mean Square | F    | Significance |
|----------------|--------|------|-------------|------|--------------|
| Between groups | .515   | 2    | .258        | .638 | .530         |
| Within groups  | 37.932 | 2879 | .404        |      |              |
| Total          | 38.447 | 2881 |             |      |              |

## 5.3. Individual Factor Analysis

The difference analysis of individual factors is mainly highlighted by gender. The samples were divided into male and female groups for this statistical analysis. It can be seen from Table 14 that the average score of social development of male students is 3.4098 and that of female students is 3.4407. From the mean value, the social development level of women is better than that of men, but this doesn't necessarily mean that gender differences have a great impact on the social development level of college students, and ANOVA is needed for further study.

**Table 14.** Gender statistical analysis.

| Sex    |                    | Score  |
|--------|--------------------|--------|
| Male   | Average            | 3.4098 |
|        | Standard deviation | .71655 |
| Female | Average            | 3.4407 |
|        | Standard deviation | .39570 |
| Total  | Average            | 3.4194 |
|        | Standard deviation | .63285 |

According to the results of one-way ANOVA in Table 15, gender exhibited no significant difference in the social developments of college students, and the coefficient of significance is greater than 0.05.

**Table 15.** Gender ANOVA analysis.

|                | TSS   | Df   | Mean Square | F    | Significance |
|----------------|-------|------|-------------|------|--------------|
| Between groups | .515  | 2    | .258        | .638 | .530         |
| Within groups  | 37.92 | 2879 | .404        |      |              |
| Total          | 38.47 | 2881 |             |      |              |

## 6. Conclusions

Based on literature review and expert interview, this paper establishes the "Social Development Evaluation Scale for College Students" with 6 dimensions and 31 indicators, designs a questionnaire and takes Dalian as a sample to investigate and analyze the social development of university students. The results show that the social development level of these students is medium, in which three dimensions of social mood and emotion, social behavior and ability, self-awareness and self-knowledge are all delayed, while three other dimensions of social norm cognition and ability, social values, interpersonal interaction behavior and ability have developed well. Then the retardation analysis is conducted for discussing the reasons for the sluggish social development of the first three dimensions, from the perspectives of family and individual.

To explore more about if other important internal variables like campus, individual and family factors essentially have influences on the social development level of college students, there has

been an in-depth discussion adopting the method of one-way ANOVA, which well explains how these internal variables (classifications) in Tab.3.1 or Tab.4.1 impact the social development levels of students.

Based on the current situation, this paper believes that when adhering to the unswerving value orientation of university students' social development in China, the way to improve the level of social development must be both practical and realistic. And a new way should be innovated to promote the social development of students from four aspects of family, society, individual and campus.

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