

7. F. S. AL-Hammadi. The Effectiveness of Using a Multi-media Software in Developing Some Listening Skills Among Saudi Secondary School Students, *Damascus University Journal*, 2011, 27(3+4), p.p.43-86.
8. Y. Wang, B. Wu, B.T. Tian, Y.H. Sheng, Y.D. Huang, D.S. Chen. Using Audition Software to Assist in Measuring the Vibration Period of Spring Oscillator. *Physical Experiment of College*, 2011, 24(3), p.p.73-75.
9. X.Y. Yi, W.J. Li. Create the Sound Material with the soft «Adobe Audition». *China Modern Educational Equipment*, 2007, 47(1), p.p.42-44.
10. J. Ren. Application of Computer Techniques in Processing Arena Design and Audio Effect – Recorded Audio Files Optimization Using Adobe Audition Software. *Audio Engineering*, 2007, 31(11), p.p.71-73.
11. Y. Guan. College English Audio-visual Teaching Directed by Multi-modal Discourse Analysis Theory in Independent Colleges-Taking Nanfang College of Sun Yat-Sen University for Example. *Journal of Changchun University*, 2015, 25(4), p.p.112-115.



## Research on The Psychological Problems of Private Higher Vocational Students By Using Network And Mobile Terminal

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### Abstract

The psychological problem of the students in higher vocational colleges is one of the key factors influencing the healthy growth of students and the quality of higher vocational education. Traditional method, however, does not propose effective solutions to handle the existing psychological problems of students. Using Internet and mobile terminal to solve psychological problems of higher vocational students and exploring its feasibility and effectiveness is a positive and beneficial practice for higher vocational colleges education, which would conduct positive explorations and researches of the psychological problems of higher vocational students.

Key Words: HIGHER VOCATIONAL, PSYCHOLOGICAL PROBLEM, INTERNET, MOBILE TERMINAL

### 1. Introduction of the Problem

Higher vocational education plays a very important role in China's education system. On one hand,

the economic development of China requires more skilled workers; on the other hand, university students now face severe employment difficulties af-

ter graduation. The importance of higher vocational education has now become more and more obvious, especially since the Ministry of Education issued the *Modern Vocational Education System Construction Plan (2014-2020)*. Under such background, how to solve the students' psychological problems existing in higher vocational education has now become an important research task<sup>[1]</sup>. Although at present almost all higher vocational colleges are all providing psychological health courses and has arranged corresponding special psychological counseling teachers<sup>[2](P111-112)</sup>, the actual situation is not ideal. Existing problems such as class hour being occupied and low education quality lead to that psychological problems of higher vocational students cannot be well resolved. Also, due to the particularity of higher vocational education, students would appear severe psychological problems such as getting tired of learning, being anxious about employment and interpersonal conflicts. In this case, choosing which way to handle has become an important issue.

### 2. Survey Objects and Survey Methods

800 students of two vocational colleges are randomly taken as samples with different grades as the division basis and questionnaire as the main method. 800 questionnaires are issued and 770 of them are recycled, among which 35 are invalid. This questionnaire is mainly designed in four aspects including common psychological problems students encountered, the teaching method used by college in psychology education, the access rate of mobile terminals such as smart phones, and students' dependency on the Internet.

### 3. Psychological Problems of Higher Vocational Students and its Solving Measures

Through the questionnaire conducted, the author finds that students in higher vocational colleges generally have the following four types of psychological problems at present.

#### 3.1. Adaption Problems of New Students

At present, students would only choose to study in higher vocational colleges only when they fail in the college entrance test, which means that they have already experienced a heavy psychological blow before they get into higher vocational colleges. Besides, most "after 90s" students are the only child of their family, relying on their relatives, lacking of psychological autonomy and easy to have mental illness<sup>[3]</sup> (P110-111). According to table 1, it can be found that, among all the 265 freshmen, 52.8% of them are having psychological problems, within which 46.7% are males, significantly lower than the 60% of the females. Thus, we could observe that it is a common

phenomenon that freshmen would have psychological problems when adapting to new environment.

**Table 1.** Psychological Problems of Freshmen

Gender	headcount	Numbers with problems	Percentage
male	145	68	46.7%
female	120	72	60%

#### 3.2. Interpersonal Problems

Interpersonal communication is a very important part of higher vocational students' daily life. Compared with high school learning, the learning pressure of higher vocational students is not that much. In other words, they have relatively sufficient spare times. Thus, the percentage that they appear psychological problems during interpersonal communications is relatively large<sup>[4](P58-61)</sup>. In the whole sample, 36.2% of the students have psychological problems during their interpersonal communications, among which 51% are caused by affection factors. As for female students' psychological problems, affection factors occupy a higher proportion. On the matter of interpersonal issues, no significant differences between different grades have been shown, but there are significant differences between different genders, that is, female students are significantly higher than males; on the matter of emotional issues, there are significant differences between both different grades and different genders, that is, juniors and females have more emotional issues.

**Table 2.** Survey on Psychological Situations about Interpersonal Relationships and Emotional Problems of Higher Vocational Students

Grade & Gender	Headcount of those having interpersonal problems	Percentage of the total	Headcount of those having emotional problems	Percentage of the total
male freshmen	57	39.3%	18	12.4%
female freshmen	63	52.5%	26	21.67%
male sophomores	47	32.6%	22	15.3%
female sophomores	52	44.1%	31	26.3%
male juniors	26	19.8%	17	12.97%
female juniors	34	30.3%	28	25%
females	130	30.9%	57	13.6%
males	149	42.6%	85	24.3%

**Table 3.** Mono Factor Analysis of Variance of Psychological Situations about Interpersonal Relationships and Emotional Problems of Higher Vocational Students

Factor	Freshman (n=265)	Sophomore (n=262)	Junior (n=243)	Males (n=420)	Females (n=350)	Freshmen-Sophomores	Freshmen - Sophomores	Freshman -junior	Males-Females
Interpersonal Problems	8.27±1.60	8.28±1.44	8.35±1.52	7.21±1.63	8.56±1.41	-0.01	-0.08	-0.07	-1.35
Emotional Problems	4.07±1.22	4.58±1.16	4.23±1.41	3.14±1.52	4.66±1.27	-0.41	-0.16	.35	-1.52

### 3.3. Learning Motivation

Higher vocational education has its own obvious characteristics which pays attention to both theoretical knowledge education and practical skills training at the same time. Students have to complete all courses in a relatively short period time, and thus their learning pressure is much heavier than the ordinary college students. Therefore, higher vocational students tends easily to have

certain psychological pressure due to their learning burdens[5] (P21). 56% of the students have learning motivation problems, among which 21% have experienced psychological problems because of learning. According to test result showed in the following table, there are significant differences between different genders, that is, learning motivation problems of male students tends significantly lower than that of females.

**Table 4.** Survey on Psychological Situations about Learning Motivation of Higher Vocational Students

Grade & Gender	Headcount of those having learning motivation	Percentage of the total	Headcount of those having psychological problems because of learning motivation	Percentage of the total
Male freshman	83	57.2%	27	18.6%
female freshman	65	54.17%	36	30%
male sophomore	69	47.92%	22	15.3%
female sophomore	54	45.76%	18	15.25%
male junior	82	62.6%	26	19.8%
female junior	77	68.75%	33	29.5%
females	234	55.7%	75	17.86%
males	196	56%	87	24.85%

A test over the situation that students having psychological problems because of learning motivation has been conducted, and the test results are as follows:

**Table 5.** F Test Between Males and Females

Items	Males	Females
Average	7.46125	8.76875
Variance	0.103012	0.053041
Observed Value	420	350
df	419	349
F	1.942127	
P(F<=f)1-tailed	0.200428	
F 1-tailed critical	3.787044	

### 3.4. Employment Pressures

Employment problem is a problem that all university students have to face and also the main reason that graduates have psychological problems. Due to the fact that the whole society does not pay much attention to higher vocational graduates to some degree, students have unclear or even unpractical employment target, which makes them easily generate psychological problems once they encounter em-

ployment difficulties such as that their personal capacities are insufficient or the professional field they have obtained does not suit them well[7]. Among 243 juniors, 57.3% male students have such psychological situations as employment anxiety or panic, and so do 43.7% of the female students. Obviously, the headcount of juniors having psychological problems of both employment anxiety and panic are larger than the freshmen and the sophomores. Meanwhile, through the T test of juniors, it can be found that there exists significant differences between male juniors and female juniors, that is, the headcount of males are much larger than females.

### 4. Solutions of Current Psychological Problems of Higher Vocational Students

At present, common psychological health education methods used by our country's higher vocational colleges are as follows:

Firstly, providing psychological health courses. Setting related courses and teaching students basic knowledge of psychology now have become the choice made by most higher vocational colleges of the whole country[8]. However, such boring classroom teaching can not help students solve their psy-

**Table 6.** Survey on Employment Psychological Situation of Higher Vocational Students

Grade & Gender	Headcount of those having employment anxiety	Percentage of total	Headcount of those having psychological problems of employment competition	Percentage of total
Male freshmen	20	13.8%	10	6.9%
Female freshmen	16	13.3%	8	6.7%
Male sophomores	28	19.4%	14	9.7%
Female sophomores	19	16.1%	9	7.6%
Male juniors	75	57.3%	63	48.1%
Female juniors	67	59.8%	49	43.7%
Males	123	29.3%	87	20.7%
Females	102	29.1%	66	18.8%

**Table 7.** T Test between Different Genders

Items	Male	Female
Average	2.509	2.122
Variance	0.103165556	0.023084444
Observed value	131	112
df	0	
F	13	
t Stat	3.444254794	
P(T<=f)1-tailed	0.002177949	
t 1-tailed critical	1.770933383	
P(T<=f)two-tailed	0.004355897	
t two-tailed critical	2.160368652	

chological problems well. Secondly, giving special reports and related lectures. Based on the psychological health courses provided, those higher vocational colleges with corresponding conditions to cover the costs hold special reports or psychological health lectures from time to time[9]. But such action lacks pertinence and could not solve psychological problems of individuals. Thirdly, opening psychological consulting offices. As one of the supporting measures of higher vocational students, such psychological consulting offices exist almost in every college. But the actual utilization and use effect of such consulting offices are extremely limited. Fourthly, opening group psychological counseling. The theoretical principle of group psychological counseling is to take advantage of internal mutual exchanges and cooperation among the students group to reduce psychological problems from happening, dredging negative psychological minds[10](P28-29). But it is difficult to implement such group psychological counseling, its functions thus can be hardly come into play.

From the above four points, it can be seen that although students' psychological health education is now in the popularity among higher vocational colleges of our country, there are many defects in the flexibility and strength of the measures. Protecting measures of psychological health which can be easily and happily accepted by students are especially

lacked. And this is exactly the reason the author attempts to take advantage of mobile terminals such as computer and smart phone to solve psychological problems of higher vocational students. In fact, in psychology, it needs to conduct both quality research and quantity research to obtain more real results. To conduct such research which is the combination of quality and quantity, the first work we need to do is to remove "paradigm"[11](P163-168), and this is exactly the difference between psychological counseling using Internet and mobile terminals and traditional psychological counseling.

### 5. Problems Needed to be Solved When Using Internet and Mobile Terminal to Conduct Psychological Counseling and its Necessity, Advantages and Feasibility

The idea to use Internet and mobile terminals to solve psychological problems of higher vocational students is mainly based on there reasons: the first one is that the access rate of Internet and smart phones nowadays is very high; the second one is that "after 90s" youths are more easily to accept all kinds of ideas on the Internet; the third one is that it is easy to implement but also with good effect.

#### 5.1. Problems Needed to be Solved

Under the traditional psychological counseling and protecting measures, to a large extent, students' psychological problems have not been well-solved. However, the innovative method which uses Internet and mobile terminals is a good way to solve higher vocational students' psychological problems.

##### 5.1.1. Access Rate to Psychological Health Education Is Not High

In the investigation, it shows that there exists severe problems of lacking awareness of psychological problems. Among all the 735 questionnaires, only 178 people say that their have received psychological education provided by their colleges, and only 134 people say that they have read textbooks of psychological health. There are significant difference between different grades as for the acceptance of psy-



chological education, the use of psychology textbooks and the active seeking of psychological counseling. The higher the grade, the use rate is higher. And also,

the differences of these three aspects between different genders are much more significant. The rate of females is higher than that of males.

**Table 8.** Higher Vocational Students' Acceptance of Psychological Education

Grade & Gender	Headcount of those having accepted psychological education	Percentage of total	Headcount of those having read psychology textbooks	Percentage of total	Headcount of those having actively seek psychological counseling	Percentage of total
Male freshmen	23	15.8%	18	12.4%	0	0%
Female freshmen	35	29.2%	24	20%	3	2.5%
Male sophomores	25	17.3%	22	15.3%	1	0.7%
Female sophomores	36	30.5%	28	23.7%	6	5%
Male juniors	22	16.8%	20	15.3%	1	0.73%
Female juniors	37	33%	32	28.6%	12	10.7%
Females	70	16.7%	50	11.9%	2	0.47%
Males	108	30.8%	84	24%	21	6%

**Table 9.** Single Factor Variance Analysis of Higher Vocational Students' Acceptance of Psychological Education

Factor	Freshmen (n=265)	Sophomores (n=262)	Juniors (n=243)	Males (n=420)	Females (n=350)	Freshmen-Sophomores	Freshmen-Sophomores	Freshmen-Juniors
Headcount of those having accepted psychological education	6.53±1.39	6.61±1.64	6.46±1.18	5.06±1.76	6.85±1.29	-.08	.07	.15
Headcount of those having read psychology textbooks	4.64±1.37	4.77±1.29	4.86±1.64	3.01±1.52	4.94±1.09	-.13	-.22	-.09
Headcount of those having actively seek psychological counseling	5.13±1.05	5.58±1.35	5.23±1.07	1.14±1.01	5.66±1.21	-.45	-.10	-.35

### 5.1.2. Number of Students Actively Seeking for Psychological Counseling Is Too Small

Compared with physical health, psychological problems are more subtle. From our country's traditional view, psychological problem equals to mental derangement, and thus people have severe scared psychology to see a doctor. Similarly, the headcount of students who actively seek psychological counseling is very small. According to the investigation being conducted, only 23 people (the percentage of total is less than 3% ) have seek psychological counseling from their teachers. What's more, there are only 2 male students (the percentage of total is less than 0.5%) having actively seek psychological counseling. According to domestic related researches, "according to all kinds of psychological survey statistics about higher vocational colleges, 15% to 30% students have more or less psychological distress"[12]. Such contrast shows that there are big demands for psychological counseling among higher vocational students.

### 5.1.3. Students are Resistant to Psychological Counseling

Students are resistant to psychological counseling. Besides, traditional way of psychological coun-

seling has been applied mechanically. Based on the description of the students, instructing teachers usually make students to admit that they have psychological problems, and then try to dredge. Students at their adolescent period are extremely sensitive. Such way of psychological counseling would bring psychological pressures to them and also make them resist[15].

### 5.1.4. Subsequent Function of Psychological Counseling Is Not Strong

Psychological problem is a long-term problem, thus it should pay attentions to the long-term effect when conducting psychological consultation. However, the purposes pursued by psychological counseling conducted by higher vocational colleges at present are almost all short-term focused and utilitarian-based. Psychological counseling has been positioned as an "instrument" to correct students' psychological problems[14](P148-149). Such way of treatment could hardly remove students' psychological problems. In other words, students' psychological problems are easily to be appeared again or even become more severe psychological problems.

### 5.2. The Necessity of Using Internet and Mobile Terminal for Psychological Counseling and Its Advantages

#### 5.2.1. The Necessity of Using Internet and Mobile Terminal for Psychological Counseling

As an important part of our country's higher education system, it has become an important research task at present that how higher vocational colleges could take a better way to solve the existing problems in higher vocational students' psychological health education. Under the social background that more and more electronic products have been widely-used, using Internet and mobile terminals to conduct psychological instructing tends to be very necessary. On one hand, most of the current higher vocational students are "after 90s", among which the utilization rate of smart phones and computers is very high, or even with dependency to some extent<sup>[15]</sup>. Even among the students, their mutual communications are carried out by social networks and mobile terminals. On the other hand, using Internet and mobile terminals to conduct psychological interventions means that teachers can easily integrate into students through social networks and other means. We hold that it is necessary to use Internet and mobile terminals to conduct psychological instructing and intervention. Thirdly, innovating the means of students' psychological instructing in the information ear could provide and accumulate experience for a better solution of students' psychological problems of different grades.

#### 5.2.2. The Advantages of Using Internet and Mobile Terminal for Psychological Counseling

(1) It's easy to realize universal access. There are 1000 and more higher vocational colleges across the country and there will be more colleges changing into higher vocational colleges in the future<sup>[16]</sup>. Thus, there's no doubt that using Internet and mobile terminals could be universally-accessed. In fact, it has been found in the investigation that the access rate of social networks such as Tencent among higher vocational colleges has reached almost 100%, and the access rate of smart phones has reached 90%. Even taking the influence of geographic and economic levels into consideration, such access rates are still very high. Therefore, this way of psychological consultation and intervention has the potential to be comprehensively and universally accessed.

(2) It's easier to be accepted. This kind of psychological counseling model can overcome psychological obstacles existed in traditional consulting model. Psychology teachers could communicate with students through channels such as QQ chat and Renren website. Compared with traditional ways, it's more

flexible, easier to be accepted, safer and more private. In the investigation, most students tends to choose online tools such as QQ to seek psychological consultation and communication.

(3) The rate of active consulting is high. Using Internet and mobile terminals to conduct psychological consultation could improve students' active consultation rate. Students could communicate with teachers at anytime and at anywhere. The consultation is more flexible. When students get into psychological problems, they could seek psychological help in time without any psychological pressure.

(4) It's counseling effect is good. By this means, we could keeping tracking for a long time after the first psychological counseling, without making students feel dislike, and thus the counseling effect could be well-improved. In the investigation, it has been found that most students prefer more flexible and soft psychological consultation and intervention measures, such as through QQ and other Internet software<sup>[17]</sup>.

### 5.3. The Feasibility of Using Internet and Mobile Terminal for Psychological Counseling

High access rate of hardware. According to the 32th statistic report on China's Internet development released by China Internet Network Information Center, by the end of June 2013, there are 4.64 billion mobile Internet users, the number of which is more than Internet users connected by desktop computers<sup>[18]</sup>(P30-36). In the questionnaire survey, there are 724 people using smart phones, occupying 94% of the total. This result is the same as other domestic researcher<sup>[7]</sup>. Moreover, the use of smart phones and social networks does not show significant differences between different grades and genders. Thus, the hardware conditions of using Internet and mobile terminals to conduct psychological instructing are mature.

Students' dependence on network is high. According to Zhang Hengkai's survey<sup>[19]</sup>(P187), "87% of college students' monthly flow package ranges from 30M to 300M, and 8% are above 300M." Also, according to the survey, nearly 100% of the students have QQ account or other network accounts, among which 92.6% are active users. Thus, the software conditions of using Internet and mobile terminals to conduct psychological instructing are also mature.

### 6. Primary Exploration of the Application Mode

Based on the fully understanding of the necessity and advantages of using Internet and mobile terminals to conduct psychological instructing, the author hereinafter put forward several application modes:

**Table 10.** Higher Vocational Students' Use Rate of Smart Phone and Social Network

Grade & Gender	Headcount of those using smart phones	Percentage	Headcount of those having IDs of social networks	Percentage of total	Active users
Male freshmen	121	83.4%	143	98.6%	119
Female freshmen	117	97.5%	120	100%	103
Male sophomores	137	95.1%	144	100%	142
Female sophomores	112	94.9%	118	100%	109
Male juniors	128	97.7%	131	100%	130
Female juniors	109	97.3%	112	100%	110
Females	386	91.9%	418	99.5%	391
Males	338	96.6%	350	100%	322

**Table 11.** One-Way Variance Analysis of Higher Vocational Students' Use Rate of Smart Phone and Social Network

Factor	Freshmen (n=265)	Sophomores (n=262)	Juniors (n=243)	Males (n=420)	Females (n=350)	Freshmen-Sophomores	Freshmen-Sophomores	Freshmen-Juniors
Use of smart phones	9.52±1.08	9.71±1.11	9.86±1.06	9.16±1.21	9.62±1.01	-.19	-.34	-.15
Use of social networks	9.76±1.43	10±1.18	10±1.64	10±1.58	9.95±1.70	-.24	-.24	0
User activeness	9.54±1.64	9.65±1.28	9.09±1.19	9.67±1.27	9.53±1.66	-.11	-.36	-.25

Guiding students to accumulate social capitals. As for the interpersonal communication problems new students have, we could guide them to accumulate their social capitals<sup>[20] (P152-154)</sup>. With the introduction of social capital, we could make students realize the importance of interpersonal communication. Still, by using convenience of social networks and mobile terminals, students could be instructed to communicate with others comprehensively, and thus they could be more easily to be adapted into new environment. Moderate network instructing could speed up the communications between students, and once a harmonious communication atmosphere has been formed, all kinds of psychological problems could be avoided.

Conducting network communication actively. Psychological counseling teachers should actively establish or join the QQ group or social network groups of the class and participate positively, obtaining students' trust through continuous communication. On such basis, it could be convenient to carry out psychological counseling and intervention and good effect could be obtained.

Setting examples for behavior guidance. The proper use of positive role models when guiding higher vocational students could effectively help the juniors in employment anxious get out of their psychological erroneous zone so that they could face the employment pressures with a positive mentality.

### References

1. The Ministry of Education. *Modern Vocational Education System Construction Plan (2014-2020)* [Z]. [2014] No. 6. June 16, 2014
2. Gao Ming. The Application of Positive Psychology Concepts in Psychological Health

- Education in Higher Vocational Teaching[J]. *Journal of Changsha Tieshi College Journal (Social Science Edition)*, 2013, (14) : 111-112
3. Wu Feng. On College Students' Interpersonal Psychological Barriers and Self-transcendence[J]. *Journal of education BBS*, 2009, 6 (24) : 110-111
4. Chao Yan. Research on Common Psychological Problems of "After 90's" Higher Vocational Students and Education Countermeasures[J]. *Journal of Shaanxi Youth Vocational College Courtyard*, 2012, (1) : 58-61
5. Li Minling & Wu Lingmin. Survey on Learning Motivation and Psychological Health of Higher Vocational Nursing Students[J]. *Journal of Health Vocational Education*, 2010, (14) : 103-104
6. Ling Zongcheng & Jiang Linli. Analysis of Social Factors Leading to the Psychological Problems of Higher Vocational Students[J]. *Journal of Chongqing Institute of Technology (Social Science Edition)*, 2010, (21) : 200-204
7. Gu Yue. *Research on Dalian Vocational Students' Psychological Health Education*[D]. Dalian, Liaoning Normal University, 2009
8. Liu Yicun. *Research on Training Strategies for Higher Vocational College Students' Positive Learning Psychology*[D]. Yang Ling, Northwest Agriculture and Forestry University of Science and Technology, 2013
9. Cai Xiaoyan. *Investigation of Present Situation of Yunnan Higher Vocational College Mental Health Education and Research on Its Countermeasure*[D]. Kunming, Kunming University of Science and Technology, 2012

10. Guo Zhongfang. Application of Group Counseling in Psychological Health Education[J]. Journal of Jiamusi Institute of Education Institute, 2010, (5) : 28-29
11. Zhou Mingjie & zhang Jianxin. The Integration of "Quality" and "Quantity" in Psychology Research Method[J]. Progress in psychological science, 2008 (1) : 163-68
12. China Internet Internet Information Center (CNNIC). 32th Statistic Report of China Internet Internet Development State[R/OL]. Beijing: China Internet Internet Information Center, 2013. (2013-7-17) [2013-8-18], retrieved at: [http://www.cnnic.cn/gywm/xwzx/rdxx/rdxx/201307/t20130717\\_40663.htm](http://www.cnnic.cn/gywm/xwzx/rdxx/rdxx/201307/t20130717_40663.htm)
13. Zhou Ting. Research on the Current Situation of Higher Vocational Students' Psychological Health and Intervention Measures, Based on the Investigation of Jiangxi Jiujiang Higher Vocational Colleges[D]. Wuhan, Central China Normal University, 2013
14. Yin Qiuyun. Positive Psychotherapy Theory and its Enlightenment to Higher Vocational Counseling[J]. Journal of Professional Space and Time, 2010, (4): 148-149
15. Liu Fengyun. Research on Higher Vocational College Students' Cell Phone Use Dependence and its Influencing Factors[D]. Hefei, Anhui Medical University, 2013
16. The state council. Decision of The State Council about Accelerating the Development of Modern Vocational Education[Z]. [2014] 2014 4, 6
17. Zhou Huihui, Dang Botao & Jiang Yonghong. Research on the influence of Mobile phone on the development of the contemporary college students and its countermeasures[J]. China youth research, 2011 (8, 9-92)
18. Teng Fei. An Empirical Analysis of the College Students' Social Interneting and Countermeasures of College Student Work[J]. China Market, 2011, (16) : 30-36
19. Zhang Hengkai & Peng Yongyu. Survey on College students' Use of Smartphones[J]. Science and technology Wind, 2013, (2) : 187
20. Cao Dan. Analysis of College Students' Online Social Behavior Characteristics and Guidance Strategy[J]. Cultural and Educational Materials, 2012 (5) : 152-154



### **Research on Assessment System of Classroom Teaching Quality Based on Fuzzy Analytical Hierarchy Process and Fuzzy Comprehensive Assessment –Take Northwest University for Nationalities as an example**

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#### Abstract

Since the classroom teaching activities have the characters of various forms, complicated contents which make the teaching quality assessment be easily affected by subjective and objective factors. On the basis of fuzzy analytical