

The Study and Analysis on the Students' Attitude to BLOG Based on the Mathematical Statistics

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Keywords: college students, microblog, investigation and analysis, T test

Abstract. In recent years, microblog has experienced a rapid development in China and has made a great impact on the society. Now more and more college students are using microblog, with the popularity of microblog in the college students, it has produced a certain influence on the information communication, college students' interpersonal communication, campus public opinion, it also has brought new opportunities and challenges to the college students' ideological and political education. This paper, by using SPSS statistical analysis to analyse college students' attitude to the microblog and grasping the influence of microblog on college students, new methods and new ways of college students' ideological and political development are deployed.

Introduction

Microblog is a platform which can combine the users' information sharing, dissemination and accessing together, through the WEB, WAP and various individual communities that were established by the clients, users can update information and realize the real-time share within 140 words.

In recent years, microblog has experienced a rapid development in China and has made a great impact on the society. Now more and more college students are using microblog, but the influences produced by the microblog on daily life, interpersonal communication, climate of learning, especially the opportunities and challenges to the college students' ideological and political education mode are still uncertain. This paper, by using SPSS statistical software and integrating all sorts of factors, new ways for college students' ideological and political education are explored in order to establish the idea of active educational function of the microblog, construct the ideological and political education platform, guide the trend of public opinion, and grasp new trends which were caused by the microblog.

The data collection and model foundation

A. Data collection

This survey issued 104 questionnaires, 104 were returned, and all of them were valid, the recovery rate was 100%. The questionnaires were issued on line, the original recovery data was stored in an Excel document, read the processed data by using the SPSS software then the SPSS data file was obtained. Freshman accounted for 9.62% (10 people) sophomore accounted for 26.92% (28 people), junior accounted for 60.58% (63 people), senior accounted for 2.88% (3 people).

B. The Analysis Model

In this paper, the SPSS software is adopted for analysis, it is mainly used for frequency analysis, correlation analysis and the two independent T test.

1) Frequency analysis

Frequency is a case number that is taken from one variable upon each variable. Frequency analysis will help a lot in the understanding of the variables' value distribution.

2) Correlation analysis

Correlation analysis is a study to determine whether there are some dependencies among the study phenomena; it also probes into the related direction and degree of the dependent phenomena. Correlation analysis is a kind of statistical method to study the correlation of the random variables

The Person simple correlation coefficient is used in this survey.

The mathematical model is:

$$r_{xy} = \frac{\sum_{i=1}^n (x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum_{i=1}^n (x_i - \bar{x})^2 \sum_{i=1}^n (y_i - \bar{y})^2}}$$

3) Two independent T test

The so-called independent samples mean that the two samples are independent without any correlation. The two samples will accept the same measurement respectively. The main purpose of this test is to know whether there is a significant difference between them.

The mathematical model is:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{S_c \left(\frac{1}{n_1} + \frac{1}{n_2} \right)}} \quad S_c^2 = \frac{(n_1 - 1)S_1^2 + (n_2 - 1)S_2^2}{n_1 + n_2 - 2}$$

Analysis procedures and results

A. Frequency analysis of the registered microblog situation

Have you registered a microblog?					
		Frequency	Percentage	Effective percentage	Cumulative percentage
Valid	1	103	99.0	99.0	99.0
	2	1	1.0	1.0	100.0
	Total number	104	100.0	100.0	

Then the SPSS software frequency analysis is adopted to show the rate students' registered microblogs, the data above shows that among the 104 objects, 99.9% of college students have registered microblogs, and only one of them does not register the microblog. The frequency analysed data shows that basically all college students have registered microblog. Now microblog is very popular among students, it has already been a part of the students' daily life, interpersonal relationship, study and other various aspects, it is also the tool for students to contracting with the outside world.

B. Frequency analysis of the average time spend on the microblog per day of the college students

how much time do you spend on the microblog per day					
		Frequency	Percentage	Effective percentage	Cumulative percentage
Valid	30 minutes	27	26.0	26.0	26.0
	1 hour	32	30.8	30.8	56.7
	1-3 hours	32	30.8	30.8	87.5
	More than 3 hours	13	12.5	12.5	100.0
	Total number	104	100.0	100.0	

According to the frequency analysis, 30.8 % of the students spend one hour a day on the microblog, 30.8 % of the students spend 1-3 hours a day on the microblog, 26 percent of college students spend less than half an hour a day on the microblog, 12.5 % of college students spend more than three hours a day on the microblog. Most students spend 1-3 hours on the microblog which may affect the students' learning and living .

C. Frequency analysis of the college students microblog access

Your visit frequency					
		Frequency	Percentage	Effective percentage	Cumulative percentage
Valid	Less than once a week	6	5.8	5.8	5.8
	Once a week	4	3.8	3.8	9.6
	2-3 days in a week	8	7.7	7.7	17.3
	4-5 days in a week	12	11.5	11.5	28.8

6-7 days in a week	74	71.2	71.2	100.0
Total number	104	100.0	100.0	

According to the SPSS frequency analysis, about 71.2% of the college students at least visit the microblog once a day, 11.5 % of the students will visit microblog 4-5 days in a week, 7.7% of college students will visit microblog 2-3 days in a week, 3.8 % of college students will visit the microblog once a week, 5.8% of college students will visit the microblog less than once a week. From the data we can know that the frequency of students' visit to microblog is relatively high , most students will visit the microblogging every day,which means microblog has been part of the college students' life.

D. Correlation analysis between visit frequency and time spending

Correlation			
		How much times do you spend on microblog per day in average	what is the visit frequency
How much times do you spend on microblog per day in average.	Pearson Correlation	1	.679**
	Significance (dual)		.000
	N	104	104
what is the visit frequency	Pearson Correlation	.679**	1
	Significant (dual)	.000	
	N	104	104

** . level 0.01 (dual) means that the correlation is significant

The frequency of visit and time spending on the microblog are significantly correlated on the level 0.01. The higher the frequency of the college students to visit the microblogging the more time they spend on microblog everyday.

E. The frequency analysis of the influence on the worldview and values caused by the microblog

Does the microblog affect your worldview and values?					
		Frequency	Percentage	Effective percentage	Cumulative percentage
Valid	Agree	3	2.9	2.9	2.9
	Relatively agree	28	26.9	26.9	29.8
	Neutral	57	54.8	54.8	84.6
	Relatively disagree	14	13.5	13.5	98.1
	Disagree	2	1.9	1.9	100.0
	Total number	104	100.0	100.0	

According to the SPSS frequency analysis, 54.81% of the students hold the attitude Neutral on the impact of worldview and values produced by the microblog, 26.9% of the students hold the Relatively agree attitude, 13.5 % of the students hold the Relatively disagree attitude. The Agree attitude is 2.9% and the Disagree attitude is only 1.9%. The scope and impact of microblog is wide, and the information dissemination and access microblog is very convenient, but every piece of the information is true and reliable, college students should be skeptical about the information that could affect people's worldview and values on the microblog.

F. The influence produced by the microblog on college students

Have you ever visited the microblog on class?					
		Frequency	Percentage	Effective percentage	Cumulative percentage
Valid	Yes	70	67.3	67.3	67.3
	No	34	32.7	32.7	100.0
	Total number	104	100.0	100.0	

Do you think the microblog will affect your life?					Total number
		Favorable, help to learn new things	No effect	Unfavorable, reduce the learning hours and affect the attitude of learning	others
Have you ever visited the microblog on class?	Yes	29	41	0	70
	No	0	14	15	34
Total number		29	55	15	104

According to the frequency analysis and crossover analysis, we can see that 67.3% of the students who visit microblog on class believe that visit microblog on class will not affect their learning, on the contrary, they believe that they can learn knowledge from microblog. College student who has a

good self-discipline and consciousness can use the microblog to learn extracurricular knowledge and focus on the things that he or she is interested in. Microblog also prides a new way of knowledge acquiring for college students.

G. Analysis of the influence on the interpersonal relationship caused by the microblog

Most of the students think microblog is good for friendship for they can meet new friends, **however**, nearly half of them think that microblog basically has no influence on interpersonal relationship. Microblog as a new kind of Internet media can not only let students to express their emotions, but also allow students to make new friends and expand their connections, which is good for students.

H. The significance analysis of the different grades and visit frequency on the microblog

Statistic group						
	Grades		N	Mean	Standard deviation	Standard error of mean
	dimension					
Visit frequency on microblog	dimension	Freshman	10	15.40	5.680	1.796
		Sophomore	28	44.00	8.468	1.600

Independent sample test										
	Levene test Of the variance equation			T test of the mean equation						
	F	Sig.	t	df	Sig. (dual)	Mean deviation value	Standard deviation value	The confidence interval of 95% low scores		
								Upper limits	Lower limits	
Visit frequency on microblog	Assuming variances is equal	.319	.576	-9.872	36	.000	-28.600	2.897	-34.476	-22.724
	Assuming variances is unequal			-11.888	23.930	.000	-28.600	2.406	-33.566	-23.634

Conclusion

According to the analyses above, we can see, microblog possesses both the positive effect and the negative effect on college students' learning, interpersonal relationship and life.

A. The positive effects on the ideological and political education caused by the microblog:

- (1) broaden students' thoughts and visions.
- (2) show emotion and entertain mood.
- (3) record life, express themselves.

B. The negative effects caused by the microblog on the students' psychology cultivation.

- (1) affect the college students' interpersonal relationship in the real world
- (2) the convenience of disguising of microblog may weaken the college students' self-control ability
- (3) the autonomy and independence of microblog may easily caused the autism expansion of college students

C. The exploration of new ideological and political education for college students based on the microblog

- (1) face challenges, then build a microblog communication platform.
- (2) strengthen the supervision and management on the microblog network system.

How can we make better a use of influences brought by the microblog? The following two points are put forward:

Suggestion 1: according to the investigation and analysis we can see that the microblog has become as another important way of information access. However we must see both the positive and negative effects on college students, figure out the defects of microblog and use it objectively. We also need to pay attention to the veracity of source of information.

Suggestion 2: We should make good use of the high speed, wide information and the strong

autonomy characteristic of the microblog. Then by using the microblog platform, we can easily select the useful information; get the learning related information and knowledge.

Acknowledgments

The research was supported by the Ideological and Political Education Research Issue of Jiangsu University of Technology with the project number KY11024 and the project name Research on the New Media and the Work Innovation of College and University Students' Ideological and Political Education.

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