

Chapter 146

Research on the Contemporary College Students' Information Literacy

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Abstract *Objective* In order to learn about the current situation of information literacy of the college students in China. *Methods* we take the random sampling method and carry out questionnaire survey in certain groups of students in Nanyang Normal College. This study will cover College students' information awareness, information knowledge, information skills and information ethics. *Result* The contemporary college students have certain information literacy, but their ability needs to be improved urgently. *Conclusion* It is suggested to take appropriate measures to improve their information literacy according to the characteristics of the colleges students.

Keywords Information literacy · College students · Resolving measures

The twenty first century is a period of rapid technological development and rapid expansion of information. People must learn to acquire and apply the resources needed in the vast ocean of information and get the ability to explore the knowledge and to bring different knowledge into mastery. Therefore, information literacy has become one of the most important contents of the learning ability in digital age, at the same time it is important for today's college students whose information literacy should be paid more attention [1]. Information Literacy Competency is the ability of individuals who can obtain the information they needed, it is the basic ability of individuals to survive and develop in the information society [2, 3]. Therefore, the author makes a survey to partly students of Nanyang Normal College in terms of information awareness, information knowledge, information skills, information ethics, by analyzing the survey, the

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author summarizes the shortcomings of college students' information literacy and then proposes the corresponding countermeasures in order to improve Chinese college students' information literacy competency in obtaining information, analyzing information and evaluating information in science and technology developed today.

146.1 Objects and Methods

146.1.1 Research Objects and Contents

This paper chooses Nanyang Normal College students as research objects. By using the way of survey questionnaire, the author randomly selected some certain students and hand out information literacy questionnaire in different majors, To some degree, it controls samples' proportion in terms of students' sex, household register, major, training direction and grade, which makes samples get a better average in each dimension and makes the sample representative broader in order to make research result broad promotion, handing out 200 copies of questionnaires, getting back 190 copies of questionnaires, three copies of invalid questionnaires. Finally, the number of valid questionnaires are 187, effective recovery rate of 93.5 % (See the Table 146.1).

Table 146.1 The general situation construction of college students being investigation

Research objects		Number	Percentage (%)	Cumulative percentage (%)
Sex	Male	96	51.3	51.3
	Female	91	48.7	100.0
Household register	Country	128	68.4	68.4
	City and town	59	31.6	100.0
Majors	Literature and history	64	34.2	34.2
	Science and engineering	62	33.2	67.4
	Arts	61	32.6	100.0
Grade	Freshman	46	24.6	24.6
	Sophomore	48	25.7	50.3
	Junior	48	25.7	75.9
	Senior	45	24.1	100.0

146.1.2 Research Tools

The questionnaire based on Normal students' information literacy questionnaire adopted by Huang Lili on the East China Normal University [4]. The author partly modifies the questionnaire and designs Nanyang Normal College students' information literacy questionnaire consists of four parts: Information awareness, information knowledge, information skills, information ethics, there are totally 19 questions.

146.1.3 Data Processing

Using the SPSS 12.0 statistical software to describe statistics and process the data by frequency analysis in the descriptive statistics.

146.2 The Results

146.2.1 The Analysis on The College Students' Information Awareness

9.1 % of the students understand the term information literacy well, 42.2 % of the students have only heard of it, 48.7 % of the students do not know the term information literacy at all Table 146.2.

36.4 % of the students take a casual look at it, 52.4 % of the students sometimes think about it and 11.2 % of them often visit it when browsing online news or reports Table 146.3.

Table 146.2 The college students' attitude toward needing information

Information needs of attitude (take the initiative to find)	Frequency	Percentage (%)	Cumulative percentage (%)
Always look for it actively	41	21.9	21.9
Most of the time	108	57.8	79.7
Sometimes	27	14.4	94.1
Rarely	11	5.9	100.0

Table 146.3 The college students would track their interested information

Attitude to tracking information	Frequency	Percentage (%)	Cumulative percentage (%)
Frequently	74	39.6	39.6
Sometimes	86	46.0	85.6
Occasionally	24	12.8	98.4
Never	3	1.6	100.0

146.2.2 Analysis on the College Students in the Aspects of Information and Knowledge

On the degree of understanding of the basic principle of computer networks, 12.3 % of the students are familiar with it, 24.6 % of the students know most of the principles, 56.1 % of the students just know a little, 7.0 % of the students do not understand it at all. As for the needed information and material, 7.5 % of the students know clearly where to find it, 61.5 % of the students relatively know where to find it, 27.3 % of the students don't know clearly where to find it, 3.7 % of the students know nothing where to find it. The situation of the college students on studying the related document searching and database searching courses (see Table 146.4).

Understanding degree of the information retrieval methods is shown in Table 146.5.

146.2.3 Analysis on the College Students in Information skills

Using Baidu or Google and other related searching engines to solve the problems in daily life or study problems, 59.9 % of the college students often use it, 27.3 % of college students occasionally use it, 12.8 % of the college students have not used it yet.

About the mastery degree of Excel, 15 % of college students are good command of using Excel, 75.9 % of college students know some basic operations, 9.1 % of college students don't know how to use Excel.

Ability to take effectively measures to stop hackers or virus from attacking computers, 40.1 % of the students can take effective measures to prevent, 59.9 % of the students are not able to.

Table 146.4 The college students have learned the related courses of the document searching and database searching

Related courses	Frequency	Percentage (%)	Cumulative percentage (%)
Yes	81	43.3	43.3
No	106	56.7	100.0

Table 146.5 The college students' understanding degree of the information retrieval methods

Degree of understanding	Frequency	Percentage (%)	Cumulative percentage (%)
Know well	18	9.6	9.6
Know some	105	56.1	65.8
Just heard of	47	25.1	90.9
Do not know	17	9.1	100.0

146.2.4 Analysis on the College Students in the Information Ethics

In light of situation of browsing Pornographic and violence web sites, 5.9 % of college students frequently browse, 33.2 % of college students occasionally browse, 61 % of college students have not browsed.

On the situation of using books from the library, 18.2 % of college students have made marks on books borrowed from the library. 16.6 % of college students have damaged the paper of books borrowed from the library. 65.2 % of college students have never damaged books borrowed from the library Table 146.6.

146.3 Discuss

146.3.1 The Information Awareness

The college students have a basic sense of information, but the degree of information awareness is not high, The psychological needs for the information is not strong. Some reasons may be that Nanyang Normal College is lack of popularity and publicity of information literacy, so nearly half of the college students have not heard of the term—information literacy. Other reasons may be due to college students' lazy psychological [5]. Those who think carefully when browsing the news reports online take the initiative to find the information needed and always keep tracking the information interested, which takes up low proportion.

Table 146.6 The college students' situation of making personal attacks online

Personal attacks online	Frequency	Percentage (%)	Cumulative percentage (%)
Frequently	5	2.7	2.7
Sometimes	19	10.2	12.8
Seldom	60	32.1	44.9
Never	103	55.1	100.0

146.3.2 The Information Knowledge

The Information knowledge of college students is not rich, For some basic information knowledge, college students just reach low cognitive level. Some reasons may be that the college does not attach importance to information knowledge and college students do not have more channels to obtain the relevant information knowledge. Other possible reasons may be that college offered fewer relevant courses and the teachers didn't make further explanation, so many college students only stay low cognitive level to computer theory and information retrieval methods.

146.3.3 The Information Skills

The college students with basic information skills can master the Searching engine, Excel and other basic computer skills to operate, but most of college students can not master highly specialized skills to take measures to prevent hackers or virus from attacking computers. The reason is that most college students are able to master the basic computer operation, but they failed to master the operation of specialized computer skills unless they learned or are trained. The Information knowledge survey shows that college did not take the information knowledge seriously, for example, the relevant courses are not opened well and the specialized computer skills training is not enough, either.

146.3.4 The Information Ethics

Generally speaking, most college students have the information ethics and only a minority of college students do not have information ethics or their level of information ethics are relatively low. The reason why a small part of the college students have low level of information ethics is that, on the one hand, the chances of college students, on the other hand, the herd mentality of college students.

146.4 Suggestions

146.4.1 Building a Beautiful Campus Environment and Creating a Healthy Study Environment

Colleges should pay more attention to the popularization and promotion of information literacy, organize college students to introduce information literacy and put information literacy into the daily life of college students [6]. Opening

document searching courses and colleges should highly emphasize to foster college students' information awareness and improve their ability to get, process and use information, to foster their ability to retrieval, process and apply the information and foster and improve the college students' information ethics.

Colleges should focus on college students' education of information ethics. First, we must attach importance to the teaching of legal basic courses in information law and regulations. Second, teaching information ethics in document retrieval must be focused on, what we add contents of information ethics into document retrieval courses can directly make college students know which behaviors are illegal. Finally, reforming moral education in universities and emphasizing on college students' construction of information ethics should be done [7].

146.4.2 Developing Good Personal Habits and Practicing Independent Learning Style

Colleges students should develop their awareness and ability of independent learning by overcoming their personally lazy psychology. At the same time, college students should make their learning plans and goals by adopting science learning method in order to read faster, better and more relaxing. Colleges students should constantly put knowledge into practice and sum up experience in practice, only doing that they can master the learned knowledge more solidly.

146.4.3 Building Sound Elementary Infrastructure, Coordinating Material and Spiritual Guidance

In the social aspects, the construction of information elementary infrastructure should be accelerated [8]. Nowadays, although China has possessed a certain material and technical basis, further accelerating the research and development of science and technology and the elementary infrastructure construction to meet the needs of the constantly deepening information technology. China should speed up the information' popularization and application and promote the process of education information in the whole society. Meanwhile, we should purify the information cultural environment by legal and ethical means.

In today's era, information literacy has gradually become an important indicator to evaluate the overall quality of talents. College students are high-tech talents and scientific research talents of country's future, their level of information literacy will affect their lifelong study and work [9], higher levels of information literacy for them will play invaluable role in obtaining the information knowledge actively in the future and improving their business level and innovation ability. In order to

improve college students' information literacy, it is necessary to efficiently combine the external influence factors with the internal influence factors, to enhance their information literacy education, which can transit high-tech talents and scientific research talents with high level of information literacy to the society, bringing enormous promotional role for our country's technological, economic and cultural development [10].

Acknowledgments The research is supported by the project of 12th five-year plan of educational science in Hubei Province (No. 2011B327), Doctor's research project of Wuhan Polytechnic University (09y036).

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