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## A STUDY OF COLLEGE ENGLISH MAJORS' CRITICAL THINKING COMPETENCE IN USING INTERNET RESOURCES

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#### Abstract

Since online information can be written by anyone and there is no quality control for them, it becomes our responsibility, as individuals, to judge what is right, wrong, immoral, illegal, biased or totally incorrect. This decisionmaking process is called critical thinking. The study involved 105 English students from a university in north China and aimed to investigate what kinds of critical thought processes were engaged when accessing and using online information. The results showed that there was a need for English majors to be more critical when using online information. Hence educators and learning institutions need to address this matter and guide the students properly in using the online information.

Keywords: critical thinking; English majors; online information

#### 1. Introduction

Nowadays, most college students in China use the Internet to gather information as an integral part of their learning process. In order to meet the demand from students, all the Chinese universities have enough computers linked to the Internet every hour of the day. It now encourages students to maximize the use of Internet information and prides itself in its ability to be able to provide this additional resource to all its members. Regardless of motive, students engage in important decision-making processes that help them determine which web site to read and gather information from.

Lee (1988) expresses concern that members from many school communities are accepting information obtained from the Internet without any apparent reflective skepticism. Critical literacy is our main concern. Because anybody can put anything on the Internet, we need to empower our children to question the information they receive. The purpose of this study is to investigate what kinds of critical thought processes English majors in China engage in when they access and use information from the Internet.

#### 2. Critical thinking and Internet

Critical thinking can be expressed in a variety of

definitions depending on one's purpose. Richard & Linda(2016) holds that critical thinking is the process of analyzing and assessing thinking with a view to improving it. It involves logical thought processes that lead to praise or blame, acceptance or non-acceptance, the appreciation of achievement or limitation for surrounding or confronting stimuli. Above all, critical thinking provides reasons why a decision was made. A critic who practices his profession effectively is able to give reasons for his favorable or adverse judgments (Black, 1952).

On the contrary, de Bono (1990) states, "Anyone who makes errors of logic in his or her thinking is regarded as a poor thinker...". Black (1952) states that critical thinking involves ideals and principles where the ideals provide critical thinkers with standards involving "...the discrimination of good from bad..." and principles that involves "...chains of reasoning...". Gagnè et al. (1993) claim that teaching critical thinking has not been very successful. They believe that critical thinking skills are hard to teach because:"...the procedures that underlie these skills have so many variables that can change, depending on what domain (any defined area of content) we are trying to think critically about. Consequently, procedures for critical thinking are hard to teach because the context in which the procedure can be used keeps changing."

Brookfield (1987) discusses his views and theories on strategies in developing critical thinking and observes that "...critical thinking in adulthood... (had) ... been greatly neglected in the educational literature...". In his book, Brookfield includes strategies, theories and methodologies on how lack of attention to critical thought can be altered by educators within their curriculum offerings. However, more than 10 years later, educators are concerned that there are students in our learning institutes who are not thinking critically, especially in dealing with information presented by the Internet. Splitter and Sharp (1995), for example, highlight: "The importance of good judgment as a determinant of how we live our lives cannot be understated. It is fair to say that errors of judgment are at the root of many of the difficulties, problems and even tragedies which confront young people. Strengthening their capacity to make good judgments should be seen as an area of vital concern to education involved in teaching for better thinking."

Another researcher, Brookfield (1987), concurs: "When we think critically, we come to our judgment, choices and decisions for ourselves, instead of letting others do this on our behalf. We refuse to relinquish the responsibility for making the choices that determine our individual and collective future to those who presume to know what is in our own best interest. We become actively engaged in creating our personal and social worlds. In short, we take the reality of democracy seriously."

Communication networks have evolved with globally accepted protocols. A standard set of protocols allows every computer to potentially become an active node forming an international network, or Internet. With appropriate computer hardware, software, and a TCP/IP connection (Transmission Communications Protocol/Internet Protocol), anyone, anywhere, anytime around the world today can communicate with others. Though many communication protocols have been in existence and in use by individual companies and institutions since the 1960s (as with the Internet), it has only been since 1994 when Andreesen and Clark (Oliver & Oliver, 1997) formed Netscape Communications Corporation, that the Internet became the commercial communication international standard.

As Anderson and Poole (1998) point out, the

Internet has become the world's greatest library. ...the linking of computer networks across countries makes available an enormous information resource, the World Wide Web...

Those who freely access the Internet through communication application programs such as Browsers, Net Newsgroups, IRC and E-mail (Iseke-Barnes, 1996) are already accepting this fact, seemingly without question. Schrock (2000) points out: "It is important to understand that there is no single authority governing the explosion of resources on the Internet. In fact, the Internet itself is a network of networks which have different origins and purposes...anyone can be a 'publisher' on the Net, thoughtful teachers and students' will want to consider the source of any information they obtain. The skills students acquire in recognizing different types of publications can be applied to Internet sources as well."

Anderson and Poole (1998) hint at a warning that should concern all when they state that even though the Internet contains a vast amount of information we should also be aware that, "...the Web [also] contains an immense amount of trivia, much information is transient, and some is biased or inaccurate". Iseke-Barnes (1996) adds to the concern: "The Internet is quickly becoming the dominant mass communication medium in society. As such it has educational impact. What is the nature of this impact? In particular, its usage for computer-mediated communications and information searching and retrieval in educational contexts must be explored."

This research tries to answer some of these concerns expressed by educators and addresses the following questions: 1) Do English learners in Chinese universities engage in critical thought processes when they access information from the Internet? 2) If so, what critical thought processes are being applied; if not, what are the implications for educators? 3) What critical thought processes can be identified as being relevant when dealing with information from the Internet?

# 3. Developing critical thinking standards for Internet information

Schrock (2001) developed a set of critical standards (Table 1) solely for judging Web pages. Schock's critical standards are often cited in the research literature and accordingly were taken as the starting point for this study.

Schrock's Critical Standards Guide for Educators										
Suggested Questions										
What is the source of the information: did it come from an academic, government or commercial site or a Usenet newsgroup?										
If the information was obtained from a commercial site, what is the site designed to sell? Does that goal affect the quality or objectivity of the information provided?										
Postings to Usenet newsgroups frequently reflect the author's individual opinion. What do you know about this author's credential?										
Is the information presented objectively, or does it reflect the biases of its author or web site? How thorough is the coverage compared to other sources?										
If information about your topic is changing rapidly, how current is the information? How recently was the web site updated? Does the information you retrieved from the Internet add a significant perspective to your research?										

Schrock provides four critical standards that a user should consider when using information from the Internet. However, Schrock's suggested questions for identifying these standards tend to overlap. For instance, for measuring the 'Reliability' of Internet information, Schrock suggests we ask the questions "If the information was obtained from a commercial site, what is the site designed to sell?" or "Does that goal affect the quality or objectivity of the information provided?" Then again, one could easily apply similar questions for the measure of 'Objectivity'. Furthermore, asking the question "What is the source of the information: did it come from an academic, government or commercial site or a Usenet newsgroup?" on its own does not determine the 'Reliability' of the information on a web site. To help overcome this problem, as well as the term 'Reliability', the indicators of domains of critical thinking were develop (see Table 2).

Table 2

Critical Thinking Domains and Indicators when using Information from the Internet

Domains	Indicators					
When critically thinking about the trustworthiness of	accuracy, honesty, stability, support and logistics					
the information of a web site one measures the						
contents						
When critically thinking about the authority of a web	source, qualifications, credentials, experience and					
site, one measures the writers:	level of articulation.					
When critically thinking about the objectivity of a	motive, neutrality, detachment and non-					
web site's content, one measures its:	opinionatedness.					
When critically thinking about the relevance of a web	recency, pertinence and suitability, lawfulness and					
site, one measures the contents:	maturity.					

When comparing Table 1 and Table 2, it is seen that the term 'trustworthiness' has replaced the term 'reliability'. The term 'reliability' has strong statistical connotations with an emphasis towards something 'tried and true', and 'predicable'. For this research study the term 'trustworthiness' is preferred, to refer to the first domain of critical thinking adopted. This term and its indicators of accuracy, honesty, stability, support and logistics are considered more appropriate in reflecting Schock's first critical standard.

### 4. Methodology

Two instruments were used in the research study. The first instrument examined how students used the Internet information presented to them. The second instrument examined what students thought about the information on the Internet and what processes were actually used.

The first instrument used a series of Restricted Response (RR) questions (Gronlund, 1976). Thirtyfive students read information from two web sites and were asked to provide written responses to a

Table 1

series of questions. The questions were designed to force the uncritically thinking student to generate responses from a specially developed Web Site (Web Site 2). Web Site 2 consisted of incorrect information and is referred to as the Inaccurate Web Site (IWS). To help critically thinking students with an alternate response, an alternate Web Site (Web Site 1) had been developed. This site is referred to as the Factual Web Site (FWS). Hence, for each RR question, students were given a choice of two Web Sites to respond from, plus the choice to respond from prior knowledge/experience. These choices were articulated and emphasized to students prior to the commencement of the exercise.

The second instrument was a Written Questionnaire (WQ). The WQ was designed to bring to the forefront varying aspects of critical thinking not otherwise picked up from the first instrument. It was intended to give insight into how students personally rate the importance of various critical thinking domains.

In the analysis of RR questions, Table 3 highlights that students' responses had to come from one of three response categories.

Table 3

Student Response Categories (RC) for Restricted Response Questions	udent Response Categorie	s (RC) for Restricted Response Q	Duestions
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Category	Response Type
RC1	The student response came from the Inaccurate Web Site (IWS).
RC2	The student response came form the Factual Web Site (FWS).
	The student response did not come from the IWS or the FWS. It came from some other
RC3	source.

It was expected that an uncritical thinker would generate responses to the RR item utilizing response category RC1 and that a critical thinker would generate responses from either response categories RC2 or RC3 (see Table 3). The RR questions had designed with elementary been 'on-line comprehension' in mind, as opposed to the higher levels of 'between-the-line comprehension' or 'beyond-the-line comprehension'. That is, the RR questions had portions of text taken literally out of the IWS and the student only needed to complete the text or find key words used in the question and

locate them in the text (on-line comprehension). This is different to questions that require students to compare what they are reading to personal experiences (between-the-line comprehension) or questions that require students to speculate the 'why's', the 'what's' and the style of the text being read (beyond-the-line comprehension).

For each of the critical thinking domains and indicators in Table 2, a series of questions were prepared to record learners' engagement in critical thinking processes, when accessing information from the Internet (see Table 4).

Table 4

## Indicators of Critical Thought Processes when Accessing Information from the Internet

Code	Indicator of Critical Thinking Processes
T1	Do learners cross reference, and do they consider cross-referencing internet information using more than one web site and /or other reference materials?
T2	Do learning evaluation, and do they consider evaluating internet information in light of prior knowledge?
Т3	Do learner consider and/or apply deductive reasoning when reading and accepting internet information?
A1	Do learners consider and/or check where the source of the internet information comes from?
A2	Do learners consider and/or check the qualifications, credentials and /or experience of the author/s of the web site?
A3	Do the lack of known specialized language in web sites alert learners' to question the authority of the information from a web site?
01	Do learners consider why the web site was established – for instance, the potential gain to the web site authors by having users read their page?
02	Do learners consider the neutrality of the information presented on web sites?
R1	Do learners determine the currency or frequency of the update of the information from a web page?

End Table 4

Code	Indicator of Critical Thinking Processes
R2	Do learners consider the appropriateness of the information from a web page for use in their research?
R3	Do learners consider the legalities, moralities and ethics of society when using information from a web site?

T-Trustworthiness A-Authority O-Objectivity R-Relevance

comprehend the question. This categorization placed a bias towards critical thinking.

### 5. Results

## 5.1. Restricted Response Questions

As may be seen in Table 5, 105 students generated a total of 1050 responses to 10 questions. Two hundred and fifty of these responses (71%) were of the response category type RC1 (Table 3).

Forty responses (11%) were of the response category type RC2, and sixty (18%) were of the response category type RC3.

Table 5

#### Students response (N=350) to the restricted response questions

Uncritical thinking responses	Critical thinking responses								
RC 1	RC2	RC3							
71%	11%	18%							

Table 5 indicates that 71% of the total student responses were judged as uncritical thinking responses. Similarly, since response categories RC2 and RC3 indicate responses that were critically thought about, then 29% of the total student responses were judged as responses deriving from the FWS or from some other source.

The research study was limited to students who

were familiar and felt comfortable with the use of

the Internet and the Internet software. The language

used in both the IWS and the FWS limited students

to senior secondary computing students. Other limitations to the study included students who did

not respond to RR questions — putting them into a

response category RC3 (Table 3). There was no

way of knowing whether a blank response was due

to the process of critical thinking because a student

could not come up with a response to the question

due to lack of information provided by both the

IWS and FWS, or whether a student did not

While Table 5 looks at the perspective of the total student responses, Table 6 looks at the

perspective of students (not responses) who generated responses from the IWS. For instance, it can be seen that 39 individuals (21 males, 18females) responded to all 10 questions of the RR item using only the information from the IWS. Therefore 39 students (37.1%) are judged as uncritical process when answering questions from the questionnaire.

Table 6

# Number of Restricted Response Questions (N=10) answered by Students using Information from the Inaccurate Web Site (IWS)

No. of questions	10	9	8	7	6	5	4	3	2	1	0	Total
Males	21	6	3	6	6	3	0	0	6	0	6	57
Females	18	9	6	0	6	0	0	3	0	3	3	48
No. of subjects	39	15	9	6	12	3	0	3	6	3	9	105
	37%	14%	9%	6%	11%	3%	0%	3%	6%	3%	9%	101%

The data in Table 6 indicate, for example, that 12 students (11% | 6 males, 6 females) responded to 6 questions out of a potential of 10 RR questions using information from the IWS. Another way of looking at it is that these 12 students responded to 4 RR questions from the FWS, and therefore are deemed as critically thinking about the questions presented

to them. It may mean that the students had not recognized, nor comprehended, the information provided to them by the IWS and therefore sought information elsewhere. At best, we could say that at least 11% of the students responded to 6 questions out of 10 uncritically because a blank response (of which there were 2) was counted as being an

indication of a critical thinker. Hence the final analysis and results indicating an uncritical thinker could be higher. Thirty-five students attempted the WQ item but not all students answered all questions. Table 7 shows the breakdown per question.

#### 5.2. The Written Questionnaire Item

Table 7

## Number of Students (N=105) who Provided a Response to Each of the Questions in the Written Questionnaire

Questions from written questionnaire										
Q1-102	Q5-105	Q9-105	Q13-102							
Q2-102	Q6-99	Q10-99	Q14-102							
Q3-96	Q7-96	Q11-99	Q15-105							
Q4-102	Q8-105	Q12-102	Q16-105							

Table 7 shows that students chose not to respond to certain questions in the Written

Questionnaire. For instance, question Q3 "Which author did you feel was more qualified?" or the fixed alternate response of question Q7 "Web Site 2 (IWS) had accurate information" were, according to some students, difficult to answer because there was little information provided by either Web Site in this regard. This indicated that only some students were thinking critically about the author and the accuracy of the information presented to them, whereas the majority did not seem to consider these. Regardless of the apparent lack of critical thinking processes exhibited by the majority of the students, when asked about knowing who the author(s) of a Web Site is (are), 82% of the students believed that knowing the experience and expertise of the author in a subject matter was important and 80% of the students felt that the accuracy of information presented on Web Sites is important. This would indicate that though students believed that knowing the author and having accurate information was important, they did not see a personal responsibility in questioning the information presented to them in the Written Questionnaire.

One student commented that, "any information given on a web site should be verified. I don't know how one can ensure this any more than ensuring that absolute accuracy in the content of daily newspapers". Another made the comment that we should "have government personnel watching it (Web Sites) and (allow them to) make any changes".

Comments from students gave insight into their thinking processes in answering the Written Questionnaire For example, "Factors such as having a photo of the man with dates of his existence made it seem more accurate" was one of the comments made by a student who mainly used information from the IWS. "Seemed to be more feasible concerning the years" was a comment made by another student who mainly used information provided by the FWS.

When asked whether they saw any differences between the information provided by each Web Site, 88% of the students stated that they did. Once again, this is inconsistent with the fact the 77.1% of the students were uncritical when generating responses to questions in the RR item. It can be assumed that a high proportion of students are accepting of information presented to them on Web Sites. One student responded that he used the information provided from Site 2 because the information was "...proved information. Web Sites use this information". In fact, the student was making reference to the IWS, or the Inaccurate Web Site. This IWS was an external Web Site accessible to all students via the Internet. As an Information Technology student, the student had detected this and from her perspective, the idea that the IWS was on the Internet (the FWS was placed on the Intranet) made the difference between accepting, or not accepting, the information regardless of having detected discrepancies in the information being presented.

When examining the results generated from the Written Questionnaire and comparing these to the results of the RR questions, other inconsistencies were revealed. For instance:

In the WQ only 40% of the students stated that they thought the author of the IWS was more qualified on the subject matter. Yet from the results produced by the RR item, as high as 77.1% of the students used the information from the IWS to generate responses to answer the questions.

Knowing where the source of the Web Site originated from was an important factor before accepting information from Web Sites, according to 72% of the student responses generated from the

WQ item. However, when asked to provide just a general source for the two Web Sites (such as the Web Site information came from an educational site or the Web Site information came from a government site) 70% of the students could not say where the IWS information came from and 75% could not say where the FWS information came from. When further prompted, at best only 3% of all the students deduced that the IWS's information must have come from a commercial site and 16% of the students realized that the FWS's information came from an academic site. There is a strong indication here that few students engage in the safe practice of seeking out the source of the Internet information even though 72% in the WQ item viewed this as being an important factor.

 $\Box$  Although 51% of the students knew the century in which Europeans discovered North America, 65.7% (RR item) of these students still used the bogus information provided by the IWS. Similarly, 37% of the students knew what century the first steam engine was built yet again 65.7% (RR item) used the bogus information provided by the IWS.

This is clear evidence that there are students who accept information published on a Web Site even if it is contrary to the acquisition of prior knowledge.

# 5.3 Mapping Results to Indicators of Critical Thought Processes

Table 8 maps students' responses, when accessing information from the Internet, as being either Critical (C) or Uncritical (U) against the indicators of critical thought processes identified in Table 4. What is interesting is that students claimed to be far more critical in (Table 8b) than what actually occurred (Table 8a).

Table 8

Т	rustworthy		Authority			Obje	ectivit	Relevance			
							У				
T1	T2	T3	A1	A2 A3		01	02	R1	R2	R3	
Response	Response	Respo	Response	Response					Response		
Total	Total	nse	Total	Total					Total		
Possible	Possible	Total	Possible Possible						Possible		
		Possib									
		le									
315	140	175	70	245					175		
U C	U C	U	U C	U C	UC	UC	UC	UC	UC	UC	
		С									
222 93	104 36	125	52 18	172 73					130 45		
		50									
70%	74% 26%	71%	74% 26%	70% 30%					74 %		
30%		29%							26%		

Mapping Student Responses to Indicators of Critical Thought Processes (a) From the Restricted Response Item: What students did

(b) From the Written Questionnaire Item: S	Student Values and Opinions
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Т	rustwort	hy	ŀ	Authority	y	Objec	ctivity		ance		
T1 *	T2**	T3**	A1**	A2*	A3*	01*	O2**	R1**	R2*	R3*	
UC	UC	UC	UC	UC	UC	UC	UC	UC	UC	UC	
12 88	68 32	56 44	67 33	35 65	24 76	21 79	21 79	79 21	53 47	24 76	
12 00	12 88 68 32 56 44 6/ 33 35 65 24 /6 21 /9 /9 /21 53 4/ 24 /6   Use Uncritical thinkers C-Critical thinkers										

U- Uncritical thinkers C-Critical thinkers

\* The percentages shown for these indicators are based on student values.

\*\* The percentages shown for these indicators are based on student opinions on what they did.

Table 8a maps student responses from the RR questions 1, 2, 3, 4, 6, 7, 8, 9 and 10 to indicator T1,

"Do student's cross reference web site information with other web sites and/or other reference materials?" As can be seen, out of the 1050 responses (105 students responding to 9 questions equates to 930 responses), 70% of the student responses did not demonstrate the critical process of 'cross-referencing' before accessing and using information from Web Sites.

The RR questions 2, 3, 5 and 6 are mapped to indicator T2, "Do students evaluate the information on a Web Site in light of their prior knowledge?" Out of a possible 420 responses (that is 105 students responding to 4 questions), 74% of the students did not evaluate the information in light of prior knowledge, this is assuming that all students had prior knowledge to address the questions. In fact this is not the case. For instance, only 51% of the students indicated prior knowledge of European discovery of America and only 37% of the students indicated prior knowledge of the discovery of the Steam Engine. Thus the result 77% is inflated. When excluding students who did not indicate prior knowledge, and only taking into account students who indicated in the WQ item that they did have prior knowledge, then the response drops down to 66%. Thus 66% of the student responses did not demonstrate the critical process of prior knowledge when accessing and using information from Web Sites.

The RR questions 1, 3, 4, 6 and 9 were mapped to indicator T3, "Do students consider and/or apply deductive reasoning when reading and accepting information on a Web Site? Out of 425 student responses (that is 105 students responding to 5 questions), 72% of the student responses did not demonstrate the critical process of 'deductive reasoning' when accessing and using information from Web Sites.

Table 8b maps student responses from the WQ item to each of the indicators of critical thought processes. These responses are based upon student claims of what they did in the thinking processes to address questions in the RR item. Table 8b also examines student perception of what is valued and what is important.

When prompted what can be done to check the 'Trustworthiness' of the information published on Web Sites, 88% of the student responses indicated cross-referencing as a possible process (T1). Sixty-eight per cent of the student responses indicated that they did not consider using prior knowledge or

personal experiences (T2) when accessing information from the IWS and FWS. A further 56 per cent of the student responses indicated that students detected no discrepancies, and hence did not apply deductive reasoning (T3), in the information presented by the IWS and FWS.

To find out whether students thought about the 'Authority' of Web Sites, the WQ item revealed that 67 per cent did not check, nor considered checking, the source of the information from the Web Sites (A1). However, 65% of the student responses considered that the author's qualifications, credentials and experience is important (A2). Seventy-six per cent of the student responses indicated that the language used (A3) would influence them to accepting or not accepting the information from a Web Site.

To ascertain whether 'Objectivity' of Web Sites was considered, students were prompted for views on the potential gain to the author for having users read their Web Page (O1) and the neutrality of the information presented on the Web Sites (O2). Seventy-nine per cent of student responses indicated importance in spending time thinking about the author's gain and 79% of student responses indicated consideration for facts, opinions and exaggerations by authors, while 21% of the students' responses did not consider objectivity an issue.

In determining whether students considered the 'Relevance' of information published on Web Sites, students were prompted to determine whether they noted the time, date and recency of the information (R1), their views on accuracy of Web Site information (R2), and their views on honesty and decency of Web Site information (R3). Twenty-one per cent of the student responses indicated that they checked the recency of the information provided by both Web Sites. Forty-seven percent of the students indicated accuracy of Web Site information as being significant (R2) while 76% of the students viewed honesty as being significant (R3).

In summing up, students are generally overly trusting of the information presented on Web Sites and do not check from where or whom the Web Site information came from. However, they are critical about its objectivity, especially when it comes to biases and fairness of the information presented on Web Sites. Strangely, students say they are not overly concerned about the level of accuracy of the information on Web Sites but are concerned about its honesty – it would seem that near enough is good enough.

# 3. Discussion

The critical thought processes identified for this study, adopted and modified from Schrock's Critical Standards, have been categorized into four domains: trustworthiness, authority, objectivity and relevance. Within each of these domains, a number of indicators were specified and used to aid in the identification of critical and uncritical thinkers.

1) Critical Thought Processes Applied by Learners: Addressing Research

Results of the study suggest that some critical thought processes take place (mainly in the objectivity domain) for most students but generally students are not overly critical especially when judging the Web Site's information source, the relevance and recency of the information, and the accuracy of the Web Site.

Being critical about the Web Site's objectivity could be the result of the current Australian social climate where citizens are constantly reminded of our egalitarian and non-discriminative society. Nevertheless, it would appear that generally students are quite accepting of what is being communicated to them via the Internet because they are not sufficiently skeptical about authors' motives and the information source.

# 2) Learners Engagement in Critical Thought

The study indicates that most learners, even though they are aware of a range of critical thought processes, do not apply all of these processes when accessing information from the Internet. Judging from the responses provided in the questionnaire, it would appear that there are two distinct reasons for learners not being overly critical in the acceptance and use of information from the Internet. The first reason is that learners are unaware of the total freedom and relative ease in which anyone can publish Web Sites on the Internet, and; secondly, they are overly trusting of authors of Web Sites, especially Internet Web Sites as opposed to Intranet Web Sites.

# 3) Implications for Educators

Most students in this study are overly trusting of the information published on the Internet and are not overly skeptical of the authors that produce the information. The implications for educators are that learners may be misinformed, mislead or abused by others. To help learners become equipped with processes to think critically and become active critical thinkers in Internet information gathering, the following considerations are put forward as suggestions to be examined and/or implemented in the interim: Educators working with Internet information; Educators using rating structures; Learners declaring URLs, and Learners guide to critical thinking processes.

4) Educators working with Internet Information This study indicates that learners are uncritical towards Internet information. While this appears to be true for at least some of the learner population, it is suggested that educators attempt to trap potential misuse and/or misinformation by closely examining their programs, assignments, tasks and learner notes used in the curriculum delivery. Though educators may not be using Internet information themselves, they need to accept the their learners will. Indications are that the number of learners who use the Internet for research will increase. Therefore, educators need to examine their resources from the perspective of the learner.

A simple strategy for preventing learners who have not yet developed good critical thinking processes (such as the very young) and to secure them from poor quality Web Sites is to make available a list of appropriate Web Sites that they can use (it might be a good idea to discuss with the learner why the Web Site(s) was/were deemed 'good').

5) Learners declaring URLs

If a learner was to use a web site for information gathering that goes outside what has been listed or recommended by the educator, then it should be mandatory that the learner provide correct URL addresses for these web sites on a reference page so that an educator has the option of revisiting the site if they wish to do so. Younger learners, however, should be discouraged from using web site information outside those listed by the educator without supervision.

### 6) Educators Using Rating Structures

Another teaching methodology, to be considered by educators for learners who have not yet developed critical thinking processes, is the use of rating structures. That is, educators and/or learning institutions need to establish and agree upon criteria for measuring the quality of the content of a web site. These criteria (or ratings) will need to be known to learners. However, it means that educators will need to examine and visit Web sites prior to learner usage.

## 4. Conclusions

This study has attempted to examine the degrees of acceptance of information obtained from Web Sites by English majors in China because Web Sites are now becoming a normal part of current day living in modern societies. It was not an investigation into critical thought processes as such even though critical thought processes played a vital role in this research study on the Internet. The study finds that 37.1% of the students answered all questions from a web site containing inaccurate information and as many as 77% of the students answered 6 questions or more (out of 10) from an inaccurate web site . This indicates that there is a portion of adult students who are overly accepting of the Internet information and are therefore potential candidates in making critical 'life' decisions based upon untrustworthy, unreliable, non-sourced and non-objective material. If this finding is replicated, it points to a serious problem. Implications for educators are presented and suggestions are made for remedying the problem for students from an individual and organizational perspective.

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#### Ван Цзінба

Виховання компетентності критичного мислення під час роботи з Інтернет ресурсами у майбутніх філологів

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В статті розглядається актуальне питання відсутності контролю за якістю Інтернет інформації. З урахуванням цього аспекту, на думку автора, відповідальність за якістю частково має покладатися на викладачів та на студентів. Приділено увагу важливим навичкам - критичному мисленню у процесі прийняття рішень щодо якості інформації. В дослідженні приймали участь 105 студентів, майбутніх філологів університету Китаю, і було спрямовано на виявлення особливості процесу критичного мислення під час роботи студентів з Інтернет інформацією. Результати засвідчили необхідність у більш критичному підході до вибору інформації майбутніми філологами. Автор дійшов висновку щодо важливості підвищеної уваги навчальних закладів до цієї проблеми та здійснення супровідного контролю щодо використання Інтернет ресурсів.

Ключові слова: критичне мислення; майбутні філологи; онлайн інформація

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# Воспитание компетентности критического мышления во время роботы с Интернет ресурсами у будущих филологов

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В статье рассматривается актуальный вопрос отсутствия контроля за качеством Интернет информации. С учетом данного аспекта, по мнению автора, ответственность за качество частично должна быть возложена на преподавателей и студентов. Внимание в статье сосредоточено на важных навыках — критическому мышлению в процессе принятия решений о качестве информации. В исследовании, которое было направлено на выявление особенностей процесса критического мышления во время работы студентов с Интернет информацией, принимали участие 105 студентов — будущих филологов одного из университетов Китая. Результаты свидетельствуют о необходимости более критического подхода к выбору информации будущими филологами. Автор пришел к выводу о важности повышенного внимания учебных заведений к этой проблеме и обеспечения сопровождающего контроля в вопросах использования Интернет ресурсов.

Ключевые слова: критическое мышление; будущие филологи; онлайн информация

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