A Model for Examining the Relation of News Media Literacy Skills, News Processing and Political Knowledge Levels

DOAA MOHAMED FATHALLAH RADY
Lecturer Assistant, Educational Media department,
Faculty of Specific Education, Cairo University

MA degree, Journalism and Mass Communication department,
American University in Cairo
E-mail:doaarady@gmail.com

Introduction
Many people who are not specialized in political science obtain their political knowledge from media. The daily news plays a vital role in forming political knowledge. News presentation differs according to the culture of the professionals and their organizations. The skills we have in dealing with media messages may have direct relation to our way of processing news; thus, knowledge acquisition is affected. Consequently, news media literacy skills help in processing news intensely and creating better political knowledge.

Literature Review
The theoretical framework demonstrated in the review includes two models which are the Heuristic-Systematic Model (Eagly, & Chaiken, 1993) and the cognitive mediation model (Eveland Jr, 2001; Eveland Jr., 2002). The Heuristic-Systematic Model explains how an individual deals with information when he or she receives a message, and forms judgments and/or takes decisions. Furthermore, the cognitive mediation model focuses on the factors that mediate the process of gaining political knowledge as a result of processing the news.

Moreover, a number of studies have tested correlation between information processing and learning knowledge, while one study examined the correlation between news media literacy skills and gaining political knowledge. Nevertheless, there are no previous studies that relate these variables together in order to benefit from their findings in improving this research methodology. In conclusion, there is a gap from the previous studies that shows the need to investigate the relation between these variables together.

Research Problem Statement, Research Questions and Hypotheses
In this digital age, we should be aware of media messages inaccuracy, fabrication, bias, disinformation, irresponsibility, sensationalism, misrepresentation, and violation of personal privacy. In addition, we need to be attentive to national and international rights, regulatory organizations and the rules applied in the field of media that serve audiences and professionals who work in this field. Acquiring this awareness comes from leaning media literacy skills in order to deal with media messages that surround us everywhere at home, in work, and on the streets.

The importance of media literacy skills are central in processing media messages and attaining high-level of understanding of the information presented. The lack of media literacy skills or having a low level of it, may lead to the automatic or artificial processing of information, and receiving little knowledge from the message.

Additionally, news media literacy skills aim to improve news processing and knowledge acquisition. Therefore, this research gained its importance from developing a scale that assesses people's levels of skills and knowledge.

The following research questions and hypotheses demonstrate the relations that were tested in this research:

R.Q.1: What is the relation between the level of news media literacy skills and the type of news processing?

H1a: Low level of news media literacy skills is negative related to heuristic processing of news.

H1b: High level of news media literacy skills is positively related to systematic processing of news.

R.Q.2: What is the relation between the type of news processing and the level of political knowledge?

H2a: Heuristic news processing is negatively related to the low level of political knowledge.

H2b: Systematic news processing is positively related to the high level of political knowledge.

R.Q.3: What is the relation between students' level of news media literacy skills and the level of political knowledge?

H3a: Students who have a high level of news media literacy skills have a high level of political knowledge.

H3b: Students who have a low level of news media literacy skills have a low level of political knowledge.

R.Q.4: What is the relation between the levels of media gratifications sought, news media reliance and elaborative processing with levels of political knowledge?

H4: A high level of media gratifications sought, news media reliance and elaborative processing will positively relate to a high level of political knowledge.

Methods

A survey method was used after the experts' feedback. The pilot survey included excessive scales' items and political knowledge questions. The experts helped the researcher in reducing the political knowledge questions by removing many questions and adding new ones. Also, they suggested selecting one medium instead of applying the survey with respect to all mass medium in order to remove many items. The tool was tested on a small sample before the final application to ensure its validity. A final questionnaire was designed to include scales for measuring news media literacy skills and news processing, the cognitive mediation model measures and questions for evaluating the political knowledge levels.

In order to design SNMLS scale, the researcher conducted a pilot test on 22 respondents from the sample under study by following certain steps. Firstly, the type of the scale was a 5-point Likert scale. Sec-

ondly, scale items were determined for assessing each skill. Thirdly, each statement on the scale was clarified according to the age group of the sample. Fourthly, the scale was prepared in a survey to conduct the pretest on a sub-sample of the main one with the same characteristics. Fifthly, the researcher carried out a factor analysis for the scale's items to select items with high reliability and avoiding items of low factor loadings. Lastly, the final survey contained the valid items of the SNMLS scale that was applied on the main research sample; the same steps applied on the scales that measure the other variables of the study.

In addition, the political knowledge questions and suggestions of some answers were selected depending on previous studies and the advice of Professor Mohamed Hussein Mustafa (professor of Political Science, Faculty of Economics and Political Science at Cairo University).

The final survey included three main sections, which are:

- First section: Demographics and other questions.

- Second section: SNMLS questions on a 5 point Likert scale for each skill of the seven, Schemer, Matthes & Wirth (2008) Heuristic systematic news processing scale questions, and the items of the cognitive mediation model measures that used by Beaudoin C. E., & Thorson E. (2004).

- Third section: Factual political knowledge and Structural political knowledge questions.

The study aimed to investigate the relation between news media literacy skills, news processing gratifications sought, news media reliance, and elaborative processing and political knowledge. Therefore, the educational field is supposed to affect the level of each variable depending on the individual differences. Consequently, this research tested the educational field of the students that is divided into three categories media, politics, and other in order to achieve the internal validity and avoid affecting the relation between independent

and dependent variables.

The initial plan aimed to control for the media and politics fields, but for two reasons the researcher controlled for all educational fields. Firstly, because the sample is students at the American University in Cairo who are well educated and they may be studying elective courses from media or political science departments. Secondly, the results revealed that more than 70 % of students have high news media literacy skills as shown in Figure (1). This may attribute to the high level of education and the awareness they get from the activities held about media and politics in Egypt at the American University in Cairo. For these reasons, the research statistically provided a comparison between the results with controlling for this variable and without controlling it.
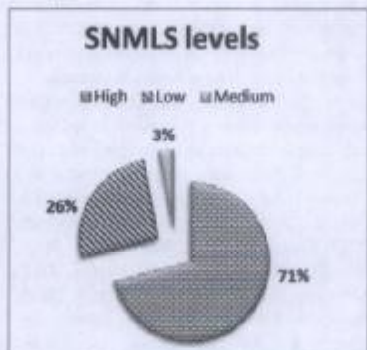

Figure (1): Levels of News Media Literacy Skills among American University Students 2014

News Media Literacy Measures

This research developed a new scale for measuring news media literacy skills, as shown in table (1), according to the skills themselves and not according to domains such as those previously mentioned in the smoking and news media literacy scales.

According to the original version of Bloom's Taxonomy that is designed for set-

ting learning objectives for students, the highest three levels are analysis, synthesis and evaluation, while the revised version considered the highest three levels as analysis, evaluation and creation (Jolls, 2012). The original classification considers evaluation as creation, while revised classification considers evaluation as a level that precedes creation. In contrast, the UNESCO's model suggested for acquiring 2020 media literacy and ICT skills differentiates between two different levels which are evaluation that includes synthesis, and creation (Lee, Lau, Carbo, & Gendina, 2013).

This research proposes a classification for news media literacy skills based on Bloom's Taxonomy (Jolls, 2012), and UNESCO's model suggested for acquiring 2020 media literacy and ICT skills (Lee, Lau, Carbo, & Gendina, 2013). News media literacy skills (Table 1) are divided into seven levels pertaining to online newspaper to be measured. The seven skills include 41 items for measuring the three levels of news media literacy that were tested on a sub-sample in order to be reduced and concentrated. The scale's items are created and adapted from nine studies (Craft, Maksl & Ashley, 2013; Ashley, Maksl & Craft, 2013; Gotoh & Ikuta, 2005; Literat, 2013; Burson, 2010; Real, 2008; Gonzales, 2012; Kurbanoglu, Akkoyunlu & Umay, 2006; European Commission, DG Information Society & EAVI, 2011). This research selected the online newspapers as the students' main news source then adapted the SNMLS scales' items for measuring the skills by focusing on the online newspapers.

Table 1: Scale of News Media Literacy Skills (SNMLS)
Core concepts
SNMLS items
1) Access Skills

AC1— I read online newspapers using tablets

Table 1: Scale of News Media Literacy Skills (SNMLS)

Core concepts	SNMLS items
1) Access Skills	AC1— I read online newspapers using tablets
	AC2— I read online newspapers using computers
	AC3—*I read online newspapers using mobile phones.* **
2) Retrieve Skills	RE1— I search news information through the online newspapers search engine.
	RE2— I find news sources that reflect my own political values on the online newspapers.
	RE3— I store digital news information retrieved from the online newspapers.
	RE4—*When I am interested in a news topic, I prefer to get news information from online newspapers.* **
	RE5—*When I am interested in a news topic, I prefer to get news information from different sources other than online newspapers.* **
3) Understand Skills	UN1—The owner of an online newspaper influences the content that is produced
	UN2—Two people might see the same news story and get different information from it.
	UN3—A journalist's first obligation is to the truth by presenting and verifying facts.
	UN4—Most people tend to think that news has a greater effect on others than themselves.
	UN5—*People's views are influenced by news coverage whether they realize it or not.* **
	UN6—*News coverage of a political candidate will influence people's opinions.* **
	UN7—*People tend to think topics that get more news coverage are more important than topics that get less coverage.* **
4) Use/ Communicate Skills	UC1— I make a bookmark of news web pages.
	UC2— I send and share news links or copied messages through email or social media websites.
	UC3—I follow news on different online newspapers.
	UC4—*When I can't get news information by myself, I use the Internet or social media to connect with others and find what I am looking for.* **
5) Analyze Skills	AN1—News is designed to attract an audience's attention.
	AN2—A story about conflict is more likely to be featured prominently.
	AN3—I pay more attention to news that fits with my beliefs than news that doesn't.
	AN4— I criticize the quality of news information.
	AN5—*I am in control of the information I get from the online news.* **
	AN6—*I interpret visual information in the news (i.e. photos, graphs, diagrams...etc.)* **
	AN7—*I can assess and break down images and themes in the news.* **
	AN8—*I distinguish between a fact and an opinion.* **

6) Evaluate Skills	EV1--Most news stories give representation to all sides of an issue.*
	EV2--I effectively determine whether or not the news information is correct and reliable.
	EV3-- I check news information received from TV, Radio or printed Newspaper through online newspapers for verifying it.
	EV4--If I decide to change my selected news sources, I can differentiate which sources provide me with credible news information.
	EV5--*Events are portrayed dramatically in the news.* **
	EV6--*If I pay attention to different sources of news, I can avoid being misinformed.* **
	EV7--*I synthesize newly gathered information from news with previous information.* **
	EV8--*When I get vast amount of news information, I decide what will be most useful for me.* **
7) Create Skills	CR1--If I am writing a news event to be published online, I can take photos and decide which are most relevant to news story.
	CR2--I mention the source of any news information that I share through the Internet
	CR3--I can produce a news story for an online newspaper.
	CR4--*I comment on news through online newspapers websites or through their pages on social network websites (i.e. Facebook).* **
	CR5--*I can write a letter to the editor of an online newspaper.* **
	CR6--*I can produce news audiovisual material for an online newspaper.* **
Total Scale before factor analysis	Composite 41 items
Total Scale after factor analysis	Composite 23 items

Heuristic- Systematic News Processing Measures

Schemer, Matthes & Wirth (2008) developed the heuristic-systematic news processing scale composed of six items for each mode on a 5-point scale scored from (1 for "do not agree at all" to 5 for "fully agree"), to measure news processing regarding certain topics.

The reasons for selecting this scale to be used by the current research are 1) it was developed after studying weaknesses and strengths of previous news processing scales 2) it was tested on a convenient sample and refined then applied on a represented sample 3) the scale items were tested again in a third study to ensure its reliability and construct validity 4) the scale's application on the representative sample and testing its validity gives the scale an advantage of replication in other studies. This research used the scale with an alteration of asking about political issues in general instead of asking about certain topics as shown in Table 2: The Heuristic- Systematic Model Scale's items

Table 2: The Heuristic- Systematic Model Scale's items

Core concepts	Scale's items developed by Schemer, Matthes & Wirth (2008) and modified by the researcher
1) The systematic news processing	SNP1—The more viewpoints I get, the better. SNP2—It is quite important for me to know as much as possible about political issues. SNP3—I am likely to focus on political issues in the news very attentively. SNP4—*It is important for me to know all arguments of a political discussion in detail.**
2) The heuristic news processing	HNP1—I rarely spend much time thinking about the news information with respect to political issues. HNP2—I often skim through news stories on political issues. HNP3—I am not interested in specific background information on political issues. HNP4—*I tune in to the news on political issues very irregularly.**
Total Scale before factor analysis	Composite 8 items
Total Scale after factor analysis	Composite 6 items

The Cognitive Mediation Model Measures

This study used the cognitive mediation measures used by Beaudoin C. E., & Thorson E. (2004) in his study "Testing the Cognitive Mediation Model: The Roles of News Reliance and Three Gratifications Sought". The three measures used by them were adapted by the researcher according to this study purpose as shown in Table (3).

Table 3: Cognitive Mediation Model Scale's items

Core Concepts	Scale items
A.Media Gratifications Sought **1.Surveillance**	S1—The news media enable me to understand what is going on in politics. S2—The news media allow me to keep up with political happenings. S3—*The news media help me form my opinion on political leaders.**
A.Media Gratifications Sought **2.Anticipated Interaction**	AI1—The news media prepare me for future political discussions. AI2—I enjoy the excitement of an election race. AI3—*The news media help me develop ammunition for political arguments that I will use with others.**
B.News Media Reliance	NMR1—How much reliance do you place on online newspapers to stay informed about politics?
C. Elaborative Processing	EP1— Often, when I learned about something in the news, I will recall it later and think about it. EP2—I often interpret news stories in a way that helps me make sense of them. EP3— I rarely spend time thinking about the news stories that I read or heard earlier.*
Total Scale before factor analysis	Composite 10 items
Total Scale after factor analysis	Composite 8 items

* *Reversed on the scale*

** *Items removed after factor analysis*

Political Knowledge Measures

Political knowledge refers to the understanding of political information, to form connections between different information, and to have knowledge, while political information indicates filtered pieces of knowledge (Elo & Rapeli, 2010). Therefore, factual and structural political knowledge are considered as the two dimensions of measuring political knowledge (Ahmed, 2011).

The researcher selected the political knowledge questions depending on the Elo & Rapeli (2010) measures. A number of questions were suggested by Professor Mohamed Hussein Mustafa (professor of Political Science, Faculty of Economics and Political Science at Cairo University) like Secularism definition. Table (4) shows the questions mentioned in the final survey.

Table 4 Political knowledge questions mentioned in the final survey

Political information	Structural knowledge
Name the current prime minister	Secularism definition
The second party that held most seats in the last elected parliament	Duties of political system in Egypt
Parties that have members in the Committee of 50	Tasks of the prime minister
Name of the former speaker of the parliament	Tasks of the president
	The main task of the of the Committee 50
	Tasks of the parliament

The instrument scoring

To determine levels of news processing, news media literacy skills and the Cognitive mediation models measures that mediate the process of the news to learn political knowledge , the researcher considered the score 4 & 5 on the 5-point scale as high level , score 3 medium, and score 1 & 2 low level.

Population and Sample

Those surveyed were undergraduate and graduate students at the American University in Cairo. This study used the convenience sample that is a non-random sample because it included AUC students who took the survey. The survey results depended on controlling the "educational background" variable by dividing the pop-

ulation into three groups which are: students in the media field, students who study politics, and students in other fields.

The study depended on the approach that uses non-random sampling through two samples which are the initial and the supplementary sample. The initial sample is the sample used in the pre-test survey, and the supplementary one is the sample used in the final survey. The total sample size was the initial sample plus the supplementary sample.

In the pre-test survey, 41 students (graduates and undergraduates), took the survey but two complete responses were deleted because they were not valid as they were answered by Alumni. Therefore, the initial sample included 39 responses with only 22 complete surveys. The results of factor analysis depended on the 22 complete responses that were received from undergraduates (11 responses= 50%) and graduates (11 responses= 50%). The survey link was sent through email randomly and shared on AUC Facebook groups. The supplementary sample that was in the final survey included 173 responses with 114 complete responses.

Data Collection and analysis

This study collected the data via a web-based version of a survey on www.surveymonkey.com that is designed for this study. The questions were uploaded on the website and students filled out the survey after receiving the survey link through the email message that was sent by the AUC portal.

Final results analysis was performed using IBM SPSS 22.0 software. The statistical techniques that were used in this study to test the research hypotheses and questions are frequencies, percentages, and Chi-Square T-Test and one-way ANOVA.

Results and Discussion

The ultimate goal of this study is to develop a scale for measuring news media literacy skills (SNMLS). This is achieved

and examined through the factor analysis and the internal reliability of the scale that is proved (Cronbach's Alpha= 0.751, N= 23 items). This scale will help in measuring the university students levels after studing media literacy skills courses or programs.

The educational background is a controlling variable. Therefore, the sample is divided into three main groups according to the fields which are media field (28.8%), field of political science (11.3%), while all other fields are in one group called 'Other' (59.9%).

The frequency of using the Internet through PC, tabs and/or mobile phones per day showed a high percentage of students who use it more than 3 and less than 7 hours (48.1%). Moreover, the findings regarding following online newspapers per day showed a high percentage of 61.3% for following online newspapers Less than 3 hours per day.

There is no statistical significance between undergraduate and graduate students concerning the news processing levels and their levels of news media literacy skills but there is statistical their levels of political knowledge. This indicates that the educational stage has no influence on both groups concerning two variables which are levels of processing news systematically or heuristically and their levels of news media literacy skills. On the other hand, there is a statistical difference due to the educational stage on the students' levels of political knowledge.

In comparing the 3 main variables between the 3 groups of students who are studying media or politics or other majors, the results revealed no statistical significance between the three groups concerning heuristic news processing levels (P value= 0.304) and political knowledge levels (P value= 0.591). But, there is statistical difference between the three groups concerning systematic news processing levels (P value= 0.001) and levels of news media literacy skills (P value= 0.000). This means that the difference in the educational field

of the students didn't make difference in their levels of processing news heuristically, or their levels of political knowledge. At the same time, statistical results revealed that the educational field has an impact on the three groups in processing the news systematically and in their levels of news media literacy skills

The statistical analysis revealed that the relation between the two modes (Heuristic and Systematic) of news processing, and the level of news media literacy skills (SNMLS), is insignificant within the group of the same field, whether in the media or political fields. In contrast, the relation is significant within the group of students of different fields. This clarifies the effect of the educational background on the levels of news media literacy skills and levels of news processing. Students of the same group have a similar background while students of different fields have different backgrounds. Consequently, the relation between news media literacy skills they have with types of news processing are similar among students of the same field group while the relation differs among students of different fields. The educational background decreases the differences between students of the same field and increases differences between students of different fields regarding the variables of news information processing and news media literacy skills.

The first research question asks about the relation between the levels of news media literacy skills and the levels of news processing types (modes).

There is a negative relation between the levels of heuristic news processing (HNP) and levels of news media literacy skills (SNMLS). When the Chi square value is 12.404 and level of significance is 0.015 then the relation between the two variables is significant. Therefore, Hypothesis H1a is supported as shown in (table 5). As the results showed that the largest group that has a **low level** of news media literacy skills, has a **high level** of processing the

Table 5: Percentages of the relation between Heuristic News Processing and News Media Literacy Skills

			SNMLS			Total
			Low	Medium	High	
HNP	Low	Count	9	1	55	66
		% within HNP	13.6%	1.5%	84.8%	100.0%
		% within SNMLS	25.0%	25.0%	50.9%	44.0%
	Medium	Count	4	1	19	24
		% within HNP	16.7%	4.2%	79.2%	100.0%
		% within SNMLS	11.1%	25.0%	17.3%	16.0%
	High	Count	23	2	35	60
		% within HNP	38.3%	3.3%	58.3%	100.0%
		% within SNMLS	63.9%	50.0%	31.8%	40.0%
Total		Count	36	4	110	150
		% within HNP	24.0%	2.7%	73.3%	100.0%
		% within SNMLS	100.0%	100.0%	100.0%	100.0%

news heuristically and the largest number of students within the highest level of news media literacy skills has the lowest level of heuristic news processing.

The results also revealed that the largest group that has a high level of news media literacy skills also has a high level of processing the news systematically. The Chi square value is 26.675 and level of significance is 0.000 therefore; the relation is significant. For this reason, hypothesis H1b is supported, as shown in (table 6), because there is a positive relation between the levels of the systematic news processing (SNP) & the levels of news media literacy skills.

This demonstrates the importance of news media literacy skills in processing the news intensely and avoiding the simplest interpretation of the news stories. The previous relations prove that the more skills the person has, the more analysis and deep interpretation take place concerning the news information.

Table 6: Percentages of the relation between Systematic News Processing and News Media Literacy Skills

			SNMLS			Total
			Low	Medium	High	
SNP	Low	Count	14	0	20	34
		% within SNP	41.2%	0.0%	58.8%	100.0%
		% within SNMLS	34.1%	0.0%	16.5%	20.5%
	Medium	Count	7	2	4	13
		% within SNP	53.8%	15.4%	30.8%	100.0%
		% within SNMLS	17.1%	50.0%	3.3%	7.8%
	High	Count	20	2	97	119
		% within SNP	16.8%	1.7%	81.5%	100.0%
		% within SNMLS	48.8%	50.0%	80.2%	71.7%
Total		Count	41	4	121	166
		% within SNP	24.7%	2.4%	72.9%	100.0%
		% within SNMLS	100.0%	100.0%	100.0%	100.0%

Controlling educational field variable showed the effect of the independent variable on the dependent variable of each question.

The relation between levels of news media literacy skills and levels of heuristic news processing is significant and negatively correlated (P value= 0.001, Partial r=-0.264-). Therefore, hypothesis H1a is supported. Additionally, the relation between levels of news media literacy skills and levels of systematic news processing is significant and positively correlated. Therefore, hypothesis H1b is supported (P value= 0.001, Partial r= 0.263). These results are clearly stated in (table 7).

This means that when levels of heuristic news processing decrease, levels of news media literacy skills increase. Also, this demonstrated that when levels of systematic news processing increase, levels of news media literacy skills increase. The same results revealed when controlling for educational field variable. Therefore, news media literacy skills help the individual to process the news deeply and think about the information he receives in order to take better decisions and form his judgments depending on good base of information processing.

The second research question aims to test the relation between the levels of news processing types and the levels of political knowledge.

There is a negative relation between the levels of heuristic news processing (HNP) and levels of political knowledge. The results revealed that the Chi square value is 11.668 and level of significance is 0.003, making the relation between the two variables noteworthy at a 5% significant level. Therefore, Hypothesis H2a is supported as shown in (table 8). As the results showed that the largest group that has a low level of political knowledge has a high level of processing the news heuristically, and the largest number of students within the highest level of political knowledge has the lowest level of heuristic news processing.

Table 7: Percentages of the relation between NEWS MEDIA LITERACY SKILLS and NEWS PROCESSING

Control Variables			HNP	SNP
Educational Field	SNMLS	Correlation	-.264-	.263
		Significance (2-tailed)	.001	.001
		df	147	147

Table 8:Percentages of the relation between Heuristic News Processing and POLITICAL KNOWLEDGE

			POLITICAL KNOWLEDGE		
			Low	High	Total
HNP	Low	Count	14	47	61
		% within HNP	23.0%	77.0% ·	100.0%
		% within POLITICAL KNOWLEDGE	26.9%	58.0%	44.9%
	Medium	Count	10	13	23
		% within HNP	43.5%	56.5%	100.0%
		% within POLITICAL KNOWLEDGE	19.2%	15.5%	16.9%
	High	Count	28	24	52
		% within HNP	53.8%	46.2%	100.0%
		% within POLITICAL KNOWLEDGE	53.8%	28.6%	38.2%
Total		Count	52	84	136
		% within HNP	38.2%	61.8%	100.0%
		% within POLITICAL KNOWLEDGE	100.0%	100.0%	100.0%

Furthermore, the relation between the levels of systematic news processing (SNP), and levels of political knowledge is insignificant because the Chi square value is 3.326 and level of significance is 0.190.

Moreover, the results revealed that there is no statistical significance between the high level of political knowledge and the high level of processing the news systematically. For this reason, hypothesis H2b is rejected as shown in (table 9).

This explains the importance of processing the news acutely to increase the level of political knowledge. A high level of SNP increases the level of political knowledge and a high level of HNP decreases the level of political knowledge.

Controlling educational field variable clarified that the relation between levels of political knowledge and levels of heuristic news processing is significant and negatively correlated (P value= 0.000, Partial r= -0.305-). Therefore, hypothesis H2a is supported as shown in (table 10).

Furthermore, the relation between levels of political knowledge and levels of systematic news processing is significant and positively correlated (P value= 0.049, Partial r= 0.170). Therefore, hypothesis H2b is supported as shown in (table 10).

The previous results that concern the hypotheses of the second research question, explained the effect of processing the news heuristically on gaining low level of political knowledge. On the other hand, controlling the educational field variable proved the positive relation between levels of political knowledge and levels of systematic news processing. This result differed without controlling the educational field variable. Therefore, when we process the news systematically, we gain high level of political knowledge. Although the direct relation between the two variables was not proved, controlling the educational field variable that has an effect on them proved this relation.

The **third research question** is examining the relation between students' level of news media literacy skills and the level of political knowledge.

The outcome of the relation between the levels of news media literacy skills and levels of political knowledge showed that the relation between the two variables is insignificant. Hypothesis H3a postulates that Students who have a high level of news media literacy skills have a high level of political knowledge. Because the Chi square value is 3.478 and level of significance is 0.176, hypothesis H3a is rejected.

Hypothesis H3b is rejected that assumes students who have a low level of news media literacy skills have a low level of polit-

Table 9: Percentages of the relation betweenSystematic News Processing and POLITICAL KNOWLEDGE

			POLITICAL KNOWLEDGE		
			Low	High	Total
SNP	Low	Count	14	12	26
		% within SNP	53.8%	46.2%	100.0%
		% within POLITICAL KNOWLEDGE	26.9%	14.3%	19.1%
	Medium	Count	4	8	12
		% within SNP	33.3%	66.7%	100.0%
		% within POLITICAL KNOWLEDGE	7.7%	9.5%	8.8%
	High	Count	34	64	98
		% within SNP	34.7%	65.3%	100.0%
		% within POLITICAL KNOWLEDGE	65.4%	76.2%	72.1%
Total		Count	52	84	136
		% within SNP	38.2%	61.8%	100.0%
		% within POLITICAL KNOWLEDGE	100.0%	100.0%	100.0%

Table 10: Percentages of the relation betweenPOLITICAL KNOWLEDGE andNEWS PROCESSING

Control Variables			SNP	HNP
Educational Field	POLITICAL KNOWLEDGE	Correlation	.170	-.305-
		Significance (2-tailed)	.049	.000
		df	133	133

ical knowledge. Yet, the percentages of students who have low level of news media literacy skills and low level of political knowledge represent 51.6%. This indicates that about half of the students within the low level of news media literacy skills have low level of political knowledge, and the other half have high level.

Craft, Maksl & Ashley (2013a) results revealed that students of a high news me-

dia literacy level have a high level of current events knowledge and students of a low news media literacy level have a low level of current events knowledge. Therefore, there is significant positive relation. The findings of this study support the previous result through hypothesis H3a and differ from the finding through hypothesis H3b as shown in (table 11).

Controlling educational field variable showed that the relation between levels of news media literacy skills and levels of political knowledge is significant and positively correlated (P value= 0.032, Partial r= 0.185). Therefore, hypothesis H3a and H3b is supported as shown in (table 12). This significant positive correlation of hypothesis H3b differs from the result without controlling the educational field variable that shows insignificant relation between levels of news media literacy skills and levels of political knowledge.

There is no direct relation between levels of news media literacy skills and levels of political knowledge but there is a positive relation between the two variables when controlling for the educational field variable. This emphasized the effect of acquiring news media literacy skills and having high level of political knowledge. Also, the educational background influence the individual's levels of news media literacy skills and levels of political knowledge.

The last research question inquires about is the relation between the levels of media gratifications sought, news media reliance and elaborative processing within levels of political knowledge.

The media gratifications sought includes two factors which are, media surveillance (the Chi square value of 0.360 and the level of significance is 0.835) and anticipated interaction (the Chi square value is 0.369 and level of significance is 0.832). The statistical analysis revealed insignificant relation of both factors within the levels of political knowledge. There is a positive relation between levels of news media reliance (NMR), and levels of political knowledge as shown in (table 13). The Chi square value is 5.030 and level of significance is 0.081 making the relation between the two variables significant at a level of 10% of significance. Furthermore, the relation between the levels of the elaborative processing and levels political knowledge is positively related as shown in

Table 11:Percentages of the relation betweenNews Media Literacy Skills and POLITICAL KNOWLEDGE

			POLITICAL KNOWLEDGE		
			Low	High	Total
SNMLS	Low	Count	16	15	31
		% within SNMLS	51.6%	48.4%	100.0%
		% within POLITICAL KNOWLEDGE	30.8%	17.9%	22.8%
	Medium	Count	2	2	4
		% within SNMLS	50.0%	50.0%	100.0%
		% within POLITICAL KNOWLEDGE	3.8%	2.4%	2.9%
	High	Count	34	67	101
		% within SNMLS	33.7%	66.3%	100.0%
		% within POLITICAL KNOWLEDGE	65.4%	79.8%	74.3%
Total		Count	52	84	136
		% within SNMLS	38.2%	61.8%	100.0%
		% within POLITICAL KNOWLEDGE	100.0%	100.0%	100.0%

Table 12:Percentages of the relation betweenNEWS MEDIA LITERACY SKILLS and POLITICAL KNOWLEDGE

Control Variables			SNMLS
Educational Field	POLITICAL KNOWLEDGE	Correlation	.185
		Significance (2-tailed)	.032
		df	133

(table 14). The Chi square value to be 7.867 and level of significance 0.020 therefore; the relation is significant at a level of 5% of significance Therefore, Hypothesis H4 is rejected regarding the relation between media levels of gratifications sought

and the levels of political knowledge, but is supported regarding the relation between levels of news media reliance and levels of elaborative processing with levels of political knowledge.

Table 13:Percentages of the relation betweenNEWS MEDIA RELIANCE * POLITICAL KNOWLEDGE

			POLITICAL KNOWLEDGE		
			Low	High	Total
NMR	Low	Count	22	25	47
		% within NMR	46.8%	53.2%	100.0%
		% within POLITICAL KNOWLEDGE	42.3%	29.8%	34.6%
	Medium	Count	20	28	48
		% within NMR	41.7%	58.3%	100.0%
		% within POLITICAL KNOWLEDGE	38.5%	33.3%	35.3%
	High	Count	10	31	41
		% within NMR	24.4%	75.6%	100.0%
		% within POLITICAL KNOWLEDGE	19.2%	36.9%	30.1%
Total		Count	52	84	136
		% within NMR	38.2%	61.8%	100.0%
		% within POLITICAL KNOWLEDGE	100.0%	100.0%	100.0%

Table 14:The relation between ELAPORATIVE PROCESSING and POLITICAL KNOWLEDGE

			POLITICAL KNOWLEDGE		
			Low	High	Total
EP	Low	Count	9	9	18
		% within EP	50.0%	50.0%	100.0%
		% within POLITICAL KNOWLEDGE	17.3%	10.7%	13.2%
	Medium	Count	9	4	13
		% within EP	69.2%	30.8%	100.0%
		% within POLITICAL KNOWLEDGE	17.3%	4.8%	9.6%
	High	Count	34	71	105
		% within EP	32.4%	67.6%	100.0%
		% within POLITICAL KNOWLEDGE	65.4%	84.5%	77.2%
Total		Count	52	84	136
		% within EP	38.2%	61.8%	100.0%
		% within POLITICAL KNOWLEDGE	100.0%	100.0%	100.0%

This explains that gaining political information from news and increasing the level of political knowledge is affected by levels of news media reliance and the levels of the elaborative processing. Also, both factors of media gratifications sought (surveillance and anticipated interaction) has no effect on having high level of political knowledge.

These findings are consistent with the results of Beaudoin C. E., & Thorson E. (2004) that proved the positive relation between media gratifications sought and that political knowledge is non-significant. Also, the results of Beaudoin C. E., & Thorson E. (2004) confirmed that there is a significant positive relation between news media reliance and elaborative processing with political knowledge.

Also, the study findings confirm the results of (Eveland Jr., 2002) who used two statistical methods which are regression and direct tests of mediation. The study results revealed that there is insignificant direct relation between gratifications sought (surveillance) and political knowledge. At the same time the results proved indirect effect of gratifications sought (surveillance) on knowledge that is showed (.15) level of significance. Also, the results confirmed significant relation between news media attention (reliance), and elaborative processing with the political knowledge.

Controlling educational field variable demonstrated that the relation between levels of political knowledge and the two factors of media gratification sought (surveillance and anticipated interaction) is insignificant. Surveillance achieved (P value= 0.597, Partial r= 0.046) and anticipated interaction revealed (P value= 0.758, Partial r= 0.027). Therefore, hypothesis H4 regarding these two variables is rejected.

Also, the relation between levels of political knowledge and levels of elaborative processing is significant and positively correlated (P value= 0.027, Partial r= 0.190). Therefore, hypothesis H4 regarding these

two variables is supported.

Finally, the relation between levels of political knowledge and levels of news media reliance is significant and positively correlated (P value= 0.019, Partial r= 0.202). Therefore, hypothesis H4 regarding these two variables is supported as shown in (table 15).

In conclusion, we can infer from the results that news media literacy skills can improve the individual news processing and political knowledge levels. Therefore, acquiring these skills is necessary in order to deal with news messages and process the information systematically. Also, having a high level of political knowledge requires having high level of news media literacy skills and deep thinking regarding the news information.

The overall significance of this study is the scale of news media literacy skills that can be used to evaluate students' media literacy skills levels. Specifically, it can be used to evaluate the media literacy programs' outcomes and determine whether it achieved its goals that summarizes in helping students to learn the skills.

Limitations

• Due to time limitation, the researcher conducted the survey among Egyptian graduates and undergraduates students at the American University in Cairo.

Recommendations

• We should pay attention to design courses, on all educational levels, that help in attaining and developing media literacy skills.

• The researcher recommends replicating the study and using the experiment as a method to investigate the relation between the study variables.

• The researcher recommends developing scales indexed in Arabic language to measure media literacy skills among Egyptians and Arabs.

Table 15: POLITICAL KNOWLEDGE * SURVEILLANCE, ANTICIPATED INTERACTION, ELABORATIVE PROCESSING, & NEWS MEDIA RELIANCE			
Control Variables			POLITICAL KNOWLEDGE
Educational Field	SURVEILLANCE	Correlation	.048
		Significance (2-tailed)	.597
		df	133
	ANTICIPATED INTERACTION	Correlation	.027
		Significance (2-tailed)	.758
		df	133
	ELABORATIVE PROCESSING	Correlation	.190
		Significance (2-tailed)	.027
		df	133
	NEWS MEDIA RELIANCE	Correlation	.202
		Significance (2-tailed)	.019
		df	133

References

Ahmed, M. A. K. (2011). Students' exposure to political news on the internet and political awareness: A comparison between Germany and Egypt. (Doctoral dissertation, Technical University of Dresden, Dresden, Germany)Retrieved from http://www.qucosa.de/fileadmin/data/qucosa/documents/8441/Mohamed_Ahmed_phD_Dissertation.pdf

Ashley, S., Maksl, A., & Craft, S. (2013b). Developing a news media literacy scale. Journalism & Mass Communication Educator, 68(1), 7–21. Retrieved from http://jmc.sagepub.com/content/68/1/7

Ashley, S., Maksl, A., & Craft, S. (2011-08-10). Exploring News Media Literacy: Developing New Measures of Literacy and Knowledge. Paper presented at the annual meeting of the Association for Education in Journalism and Mass Communication. Renaissance Grand & Suites Hotel, St. Louis. Retrieved from http://citation.allacademic.com/meta/p518851_index.html

Beaudoin C. E., & Thorson E. (2004). Testing the Cognitive Mediation Model: The Roles of News Reliance and Three Gratifications Sought. Communication Research, 31 (4), 446-471. Retrieved from http://crx.sagepub.com/content/31/4/446

Burson, J. K. (2010). Measuring media literacy among collegiate journalism students. (Master's thesis, Oklahoma State University), Available from ProQuest. (1480972)Retrieved from http://gradworks.umi.com/14/80/1480972.html

Craft, S., Maksl, A., & Ashley, S. (2013a). Measuring news media literacy: How knowledge and motivations combine to create news-literate teens. Communication Faculty Publications and Presentations, Retrieved from http://scholarworks.boisestate.edu/communication_facpubs/60/

Eagly, A. H., & Chaiken, S. (1993). The psychology of attitudes. Fort Worth, TX : Harcourt Brace Jovanovich College Publishers.

EAVI. (2009). Information society and directorate-General, Media and media literacy unit. Study on assessment criteria for media literacy levels (Smart 2008/0005). Retrieved from European commission website: http://ec.europa.eu/culture/media/media-content/media-literacy/studies/eavi_study_assess_crit_media_lit_levels_europe_finrep.pdf

Elo, K., & Rapeli, L. (2010). Determinants of political knowledge: The effects of the media on knowledge and information. Journal of Elections, Public Opinion & Parties, 20(1), 133-146. Retrieved from http://dx.doi.org/10.1080/

17457280903450799

European Commission. (2007). Current trends and approaches to media literacy in Europe "Executive summary". Retrieved from https://docs.google.com/viewer?a=v&q=cache:iXOpnu5ELcUJ:ec.europa.eu/culture/media/literacy/docs/studies/ex_sum.pdf+&hl=en&gl=eg&pid=bl&srcid=ADGEESiAySnFuOSuFerQELMWkHGEs_HxDLzoiZPxB4JV8tG0QbmSu6bwWuBhLakh7uFZBoqAJg97gHfsm9o4vWhWo9yNS3ESaF12m4iZt_yMAUlUGtKlVNOJfkAv9HoBqEqlmXcz27lD&sig=AHIEtbSFZFjpNueFhC2swqnU1VhpPaiFhA

European Commission , DG Information Society, & EAVI. (2011). Testing and refining criteria to assess media literacy levels in Europe (Final Report). Retrieved from Danish Technological Institute & European Association for Viewers' Interests website: http://www.eavi.eu/joomla/images/stories/Publications/study_testing_and_refining_ml_levels_in_europe.pdf

Eveland, JR. W. P. (2001). The Cognitive Mediation Model of Learning From the News: Evidence From Nonelection, Off-Year Election, and Presidential Election Contexts. Communication Research, 28 (5), 571-601. Retrieved from http://crx.sagepub.com/content/28/5/571

Eveland, JR. W. P. (2002). News Information Processing As Mediator Of The Relationship Between Motivations And Political Knowledge. Journalism & Mass Communication Quarterly, 79 (1), 26-40. Retrieved from http://intl-jmq.sagepub.com/content/79/1/26.full.pdf+html

Eveland et al. (2003). Assessing Causality in the Cognitive Mediation Model: A Panel Study of Motivations, Information Processing, and Learning During Campaign 2000. Communication Research, 30 (4), 359-386. Retrieved from http://crx.sagepub.com/content/30/4/359

Gonzales, D. (2012). Critical media literacy in the high school classroom: A student centered approach. (Master's thesis, ARIZONA STATE UNIVERSITY), Available from ProQuest LLC. (1508830).

Gotoh, Y., & Ikuta, T. (2005). A Study of Children's Media Literacy in Japan. In Proceedings of Korea-Japan International Conference (pp. 242-246). Retrieved from http://teacherresearch.net/tr_ikuta2.pdf

Jolls, T. (2012). Media literacy: A system for learning anytime, anywhere. Center for Media Literacy. Retrieved from http://www.medialit.org/media-literacy-system-learning-anytime-anywhere

Lee, A., Lau, J., Carbo, T., & Gendina, N. (2013). Conceptual relationship of information literacy and media literacy in knowledge societies. World summit on the information society (wsis). Retrieved from http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/wsis/WSIS_10_Event/WSIS_-_Series_of_research_papers_-_Conceptual_Relationship_between_Information_Literacy_and_Media_Literacy.pdf

Literat, I. (2013). A media literacy quiz. Unpublished raw data, Annenberg School for Communication and Journalism, University of Southern California, Retrieved from https://uscannenberg.qualtrics.com/SE/?SID=SV_cwLRMymkLMboa3O

Real, Y. M. (2008). An assessment of the relationship between creativity and information and media literacy skills of community college students for a selected major. (Doctoral dissertation, Pepperdine University), Available from ProQuest. (3291147).

Schemer, C., Matthes, J., & Wirth, W. (2008). Toward improving the validity and reliability of media information processing measures in surveys. Communication methods and measures, 2 (3), 193-225. Retrieved from http://www.tandfonline.com/doi/abs/10.1080/19312450802310474#preview & HYPERLINK "http://www.nccr-democracy.uzh.ch/publications/workingpaper/pdf/WP14.pdf"

UNESCO. (2011). "Media and information literacy, curriculum for teachers." the United Nations Educational, Scientific and Cultural Organization. Retrieved from http: // unesdoc.unesco.org/images/0019/001929/192971e.pdf

UNESCO. (2013). Media and information literacy and intercultural dialogue week. Retrieved from http://www.unesco.org/new/en/communication-and-information/media-development/media-literacy/milid-week/