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The American University in Cairo

School of Global Affairs and Public Policy

A MODEL FOR EXAMINING THE RELATION BETWEEN NEWS MEDIA LITERACY SKILLS, HEURISTIC-SYSTEMATIC NEWS PROCESSING AND POLITICAL KNOWLEDGE LEVELS

A Thesis Submitted to

Journalism and Mass Communication Department

in partial fulfillment of the requirements for

the degree of Master of Arts

by Doaa Mohamed Fathallah Rady

)Under the Supervision of Professor: Sheila Peuchaud)

May / 2014

The American University in Cairo

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Doaa Mohamed Fathallah Fetouh El Sayed Rady

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in partial fulfillment of the requirements for the
degree of Master of Arts

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DEDICATION

I dedicate my thesis to my big and small family.

A special feeling of gratitude to my mother, *Aliat Ismail* and my brother, *Ahmed Rady* who have never left my side and whose words of encouragement supported me to get the master degree. To my father's soul, I hope you are proud of me.

I also dedicate this thesis to my lovely daughter, *Mariam* and to my husband, *Dr. Mohamed Abd El-Sattar*.

I will always appreciate all they have done and give special thanks to *Dr. Tharwat Fathy Kamel*, Journalism Professor in the educational media department at Cairo University, who supported me all the time.

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VIII. Appendices

Chapter 1: Introduction

Being aware of the role that media play is crucial in this day and age. New technology requires well educated and skilled people to interpret it accurately and critically. The creation of news is a production that requires talented professionals who form our perceptions towards our world. News presentation differs according to the culture of the professionals and their organizations. Hence, news media literacy skills are vitally important for understanding, analyzing, evaluating or creating news messages. Audiences now are not only news consumers, but also news producers, as they create news messages through social media and comment through news websites.

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. Consequently, news media literacy skills help in processing news intensely and creating better political knowledge.

This research gained its importance from investigating the relationship between news media literacy skills (Ashley, Maksl, & Craft, 2011; Craft, Maksl & Ashley, 2013), news information processing (Eveland Jr., 2002; Eveland, JR., 2001; Fleming & Thorson, 2008), media gratifications sought (Beaudoin C. E., & Thorson E., 2004), news media reliance (Beaudoin C. E., & Thorson E., 2004), elaborative processing (Beaudoin C. E., & Thorson E., 2004; V.-h. Lo et al., 2013), and political knowledge (Elo & Rapeli, 2010; Eveland Jr, 2001; Macleod, Kosicki, and Macleod, 2009, p. 231; Eveland Jr., 2002). A number of studies have tested correlation between (news) information processing and learning (political) knowledge, while others 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. For this purpose, the literature review included studies that have covered only one variable or the studies that have matched two variables together.

The models demonstrated in the review 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. The cognitive mediation model focused on the factors that mediate the process of gaining political knowledge as a result of processing the news. Moreover, studying processing of news information is beneficial in understating how we gain knowledge from news and its effects on our judgments.

Previous studies that tested (news) information processing dealt with the information processing theories or models that lie under studying persuasion. These theories and models are connected through the fields of psychology and communication. Some of these models are tested to obtain findings about what happens in an individual's cognitive and motivational processes during the processing of information. Other models differ from those in that they aim to seek out results that create a link between the psychological processes and media effects on an individual.

The skills we have in dealing with media messages may have direct relation to our way of processing news; thus, knowledge acquisition is affected. Therefore, media literacy skills are very important in understanding the messages critically, evaluating and/or creating them. Scholars and international organizations are working intensively to develop the related concepts and assessment tools, as well as creating a

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universal curriculum to help in spreading these skills among people all over the world in this digital age.

This research aimed to develop a scale for measuring news media literacy skills. Each variable included more than one factor that was selected depending on the theoretical concepts presented in the coming review. Also, items on the scale were tested on a sub sample then statistically examined through factor analysis for refining the final items of the scale in the final survey. At the end of this review, the research questions, hypotheses and the diagram explained the relationships between the variables of the research that derived from the problem statement. Regarding news media literacy skills, this research used the latest skills classification of UNESCO (2013), in addition to adaptation of items on previous scales related to these skills.

Chapter 2: Literature Review

A) Heuristic-Systematic Model

Dual-Processing Models:

Dual-process models work on the idea of taking decisions and providing judgments based on the occurrence of two different mental modes during the processing of information (Gawronski & Creighton, 2013; Shah & Oppenheimer, 2008). The two modes that happen during information processing are: "automatic" and "controlled." The processing can be described as "automatic" if it has one of the four characteristics which are: *"(1) unintentional, (2) efficient, (3) uncontrollable, or (4) unconscious"* (Gawronski & Creighton, 2013).

The most important dual-process models are: the Heuristic-Systematic Model (Chaiken, 1980, 1987, 1993), and the Elaboration Likelihood Model (Petty & Cacioppo, 1981, 1986). These models are studied in the fields of communication and psychology to understand the persuasion process that occurs when a person receives a message (Severin & Tankard, 2010, pp. 173-175; Eagly & Chaiken, 1993, pp. 326-327; Shah & Oppenheimer, 2008).

Additionally, the Heuristic-Systematic Model aims to evaluate *"the validity of persuasive messages"* and the Elaboration Likelihood Model supposes that the message receiver stimulated to form correct attitudes (Eagly & Chaiken, 1993, p. 326). However, the Elaboration Likelihood Model falls short of answering the question of whether the two modes can occur together or not, while the Heuristic-Systematic Model covers this assumption and called it the *"concurrent processing assumption"* (Eagly & Chaiken, 1993, p. 328). The Heuristic-Systematic Model explained this assumption by supposing the complicate interaction between heuristic and systematic processes that happen due to the potential interactions between *"argument quality, source expertise, and attitudes"* (Reimer, Mata, Katsikopoulos & Opwis, 2005).

Heuristic-Systematic Model (HSM):

The HSM model (Appendix B) was developed by Eagly, Liberman & Chaiken (1980, 1987, 1989, 1993). Heuristic processing indicates the simple mode to judge a message or take a decision, while systematic processing refers to the processing mode that requires analysis and effort for processing persuasive messages (Eagly & Chaiken, 1993, pp. 326-327; Severin & Tankard, 2010, p. 175; Griffin, Neuwirth, Giese & Dunwoody, 2002). There are two elements for the systematic-processing that may make this mode biased, which are capacity and motivation (Eagly & Chaiken, 1993, p. 327). Cognitive capacity refers to the capability of the brain to retain certain amounts of information at any moment (Bilash, 2011). Motivation means the *internal state* that directs the individual's behavior (Huitt, 2011).

Heuristic-Systematic Model Assumptions and Cognitive Determinants:

The researchers who developed the model suggested that there are cognitive and motivational determinants that may bias the systematic processing (Eagly, & Chaiken, 1993, p. 340).

Firstly, the Ability assumption postulates that the systematic processing needs and *"consumes cognitive capacity"* more than that required by the heuristic processing. Consequently, situational and individual differences are cognitive determinants that affect systematic processing by reducing people's abilities to process detailed information such as time pressure. On the other hand, some other factors (e.g. previous knowledge), may assist in the systematic processing (Eagly & Chaiken, 1993, p. 328). Situational variables are external effects that influence the behavior (Gerrig & Zimbardo, 2002). The individual differences are the variances between individuals due to variations of *self-esteem, rate of cognitive development or degree of agreeableness* (Berger, 2008 cited by Fraser-Thill, 2012).

Secondly, the model assumes the *attenuation effect* which means that the systematic mode may dominate the heuristic judgments in a situation where the systematic processing occurs. Also, HSM supposes the opposite in which the heuristic processing may control the systematic judgments in other situations (Eagly, & Chaiken, 1993, pp. 328-329).

Thirdly, the model suggests that the two modes may occur together and cause *additive effects* to the judgments (Eagly, & Chaiken, 1993, pp. 328-329).

Cognitive Principles of Heuristic Processing:

HSM suggests three cognitive principles that control the heuristic processing which are: availability, accessibility and reliability.

Firstly, *availability* means heuristic cues are available in the person's mind, therefore; they affect his judgments such as, message *length means strength*. Some individuals hold a heuristic cue that message length means its strength. Secondly, *accessibility* refers to the activation of heuristics in the mind during receiving the persuasive message. Thirdly, *reliability* increases when its related heuristic cues increases to end with heuristic judgments. For instance, people become more acceptable to the experts as sources if they believe that *"experts can always be trusted"* than those who believe *"experts can generally be trusted"* (Eagly, & Chaiken, 1993, pp. 329-330).

*Motivational Determinants and its Principle*s:

The HSM postulates two principles which are *"least effort and sufficiency principles"* in order to explain people's aims to satisfy their needs with the least effort.

The *"least effort principle"* assumes that people tend to do less effort than doing more effort as in the systematic mode, which ignores their motivational need to have the correct attitudes.

The *"sufficiency principle"* supposes that people will do their utmost effort to achieve a *"sufficient degree of confidence"* to fulfill their *"processing goals"* by holding the correct attitudes (Eagly, & Chaiken, 1993, p. 330). This principle demonstrates that people who have a high desire to process the message

systematically, will decrease their confidence level below their *"actual level of confidence"*. In other words, people have a high tendency towards systematic processing *"when the difference between their desired and their actual levels of confidence is high"* (Griffin, Neuwirth, Giese, & Dunwoody, 2002).

B) The Cognitive Mediation Model

The cognitive process is fundamental in media studies because it intermediates the relation between a person's attitudes' formation, and dealing with media information (SHRUM, 2009, pp. 50). The two prominent variables studied in the field for testing the process of learning from news are *"motivations or goals and information processing"* (Eveland Jr., 2002).

Assumptions:

Eveland Jr. (2002) suggested *The Cognitive Mediation Model* (Appendix B) aims to test the relation between processing news information and learning political knowledge. The model merges three theoretical concepts together which are: *Uses and gratifications*, *media attention*, and *news information processing*. These concepts are important factors for learning from news. Eveland assumes that *"motivations"* of news media use affect news *"information-processing"* which is a factor needed *"for learning from news."* The first concept is *motivations* which are the desires or goals that govern information processing such as *"desire to recognize, understand, evaluate, or make a decision"*. For instance, if the person has no motivations for processing a particular message that they may interpret in a simple way rather than making effort during deep thinking. Secondly, *attention* means the audience selects certain information from the message to process that information. Furthermore, researchers showed that the greater the attention is the more recall of information happens. Thirdly, *Information processing* means that the individual's memory processes the information and thoughts through certain movements that enable the person from using this information in judgments and decisions.

In addition, the importance of elaboration is demonstrated in testing the actual learning of information from news (Eveland, 2004 cited by Fleming & Thorson, 2008). This model demonstrated that the person in order to process the information

intensely, should think critically, and match the information to the previous information in the memory (Eveland Jr., 2002).

Media Literacy

International Historical Background:

The concept of media literacy originated in the 1970s in the United States was done so in order to differentiate it from older concepts as, *"visual literacy and information literacy"* (Hobbs & Jensen, 2009). In 1982, UNESCO held the *"International Symposium on Media Education at Grunwald"* in Germany, with the contributions of 19 countries, and called for the need for media literacy education programs, training courses, research and activities (UNESCO, 1982; Tornero, Paredes, & Simelio, 2010).

Thereafter, UNESCO initiated a Media Literacy movement in 1990 by calling for a conference to support the media literacy application in developing and developed countries. A conference entitled: **"For an International Colloquy on the Future of Media Education Worldwide,"** was held in Toulouse, France with the participation of 180 experts from 40 countries (Criticos, 1999; International Conference, 1999).

Additionally, Canadian teachers encouraged policy makers in the 1990s to take initiative towards media education implementation. Consequently, media literacy started in 1997 to be incorporated into the programs of English/ Language Arts in Canada (Duncan, and Arcus, 2010). Bill Allen, spokesperson for the non-profit organization *"Media Awareness Network"* (MAN), explained that, *"The Canadian Radio-television and Telecommunications Commission (CRTC)"* started in the 1990s a media literacy program to provide young people, teachers and parents with the needed awareness as viewers, which has resulted in media education being available in Canada now with the *"financial support of the Canadian networks and cable providers"* (Minkel, 2002). New concepts were introduced and appeared in the United States in 2000, such as cyber literacy and new media literacy (Hobbs & Jensen, 2009).

In Europe, the European Parliament and European Commission launched *"The Permanent Safer Internet Programme"* in 1999 to offer *"Internet security tools"* for children, teachers and parents. Between 2000-2008, the European Union Commission applied an action plan through many programs and initiatives to confront the digital divide, and promote the understanding of digital literacy amongst all countries of the EU (Tornero, Paredes, & Simelio, 2010). By December 2009, media literacy was included in the regulations of all countries of the European Union and mentioned in the European Audiovisual Services Directive (Tornero, Paredes, Baena, Giraldo, Tejedor & Fernàndez, 2012).

Egyptian Historical Background:

The history of media literacy within Egyptian schools started precisely with the April 17th, 1870 launch of a school newspaper called "Rawdet Al Madaress" that was distributed for free to outstanding students. At that time, school broadcast activity was a tool for the students to express their thoughts. Not only did students express their views through the broadcast programs, prepared and presented at schools that were an independent public media, but also through the creation of their own magazines. In 1953, a new department was established in the Ministry of Developing Education responsible for educational media activities in schools (Desouky, 2010, p. 428). During the 1990s, the faculties of Specific Education were established with the mission to educate and prepare undergraduate students to become educational media specialists. Their role is to help outstanding students during each level of their schooling, and to create different media products printed, electronic, audiovisual or educational plays (Desouky, 2010). More recently, the Egyptian Ministry of Education applied a new educational media activity curriculum for the primary and preparatory stages starting from the school year 2011/2012. The activity is the same like the activity in the past, but the new curriculum set goals to direct this activity (Morsi, 2012). Despite such efforts media literacy is still not addressed in formal education.

Media Literacy Definitions:

There are many concepts related to media literacy that carry different definitions, due to the diversity of nationalities and cultural backgrounds of different scholars. Tibor (2011) discusses various concepts that may interfere with media literacy or complement it, such as: *information literacy, digital literacy, multicultural literacy, emerging technology literacy, reproduction literacy, and multimodal literacy*.

Some researchers implement media education and media literacy with the same definitions, while others differentiate between them, and consider media literacy a result of media education. The UNESCO conference (1990) defined media education as *dealing with, using, understanding all communication media, and critically analyzing media messages* (Criticos, 1999; International Conference, 1999). The results of Fedorov's (2003) research concerning media education definitions concluded that the UNESCO definition was supported by nearly all scholars in the field (Fedorov, 2003).

At a later stage, media education definition described the process that helps people to be *media literate-able* and to *understand critically media messages' effects and production techniques*. Also, media literacy referred to the skills learned through this process (Media Awareness Network, 2006; Hobbs, 2005).

Therefore, the media literacy definition is summarized as the skills and competences required to use, understand, analyze, evaluate, and produce media messages. Fedorov (2003) added two other points: the awareness of media effects on the individual and society, and the awareness of media messages that reflect cultural recognition (Kubey, 1997 cited by Fedorov, 2003; Hobbs, 2005; Hobbs, 2010; Fedorov, 2003).

UNESCO (2011) developed a new definition of media literacy, acknowledging it as *the assertive or non-assertive use and understanding of mass media including the understanding of media techniques and impacts, the abilities of reading, decoding, analyzing, evaluating and producing media messages with its different forms whether printed or audiovisual*.

Currently, the latest, universal definition of media literacy adopted by the European Commission (EC) and UNESCO in 2013, summarized in the definition developed by EC, perceives media literacy as *the abilities of access, understanding, and evaluating critically media contents and different media processes*. UNESCO extended this definition to include the understanding of media functions and the conditions to carry out these functions, which consist of: *analyzing, evaluating and using media content for participating in democratic, intercultural dialogue and learning processes, as well as producing user-generated content, and acquiring ICT and media skills* (Lee, Lau, Carbo, & Gendina, 2013).

Media Literacy Skills:

Media literacy skills are the abilities and competences included in the previous definitions that were studied by scholars of varying nationalities. These skills use accessing, understanding, analyzing, evaluating and creating media messages, plus understanding media functions and media impacts (UNESCO, 2011; Kubey, 1997 cited by Fedorov, 2003; Hobbs, 2005; Hobbs, 2010; Tornero & Varis, 2010; Tornero & Pi, 2011; European Commission, 2007; The College Board, 2006; SINGER, D. G., & SINGER, J. L., 1998; Baker F. W., 2012;   EAVI, 2009; Fedorov, 2003; Hobbs & Frost, 2003; Hobbs, 2004; Jolls, 2012; Aufderheide & Firestone, 1993 cited by Jolls, 2012).

The researchers classified people into two categories; those of low media literate and those of high media literate. The British model of education for the media developed by the British Film Institute, suggested that high literacy skills that are reflected in the evaluation capabilities and low literacy skills, are also reflected in the understanding and interpretation abilities (*Dorr, 1982; Greenfield, 1984; Salomon & Perkins, 1985* cited by Feuerstein, 1999). This means that literacy level influences the individual's ability of understanding any message he receives. Potter (1998) considered that people with low level of media literacy skills process media messages less actively than those of high skills. In addition, Buckingham (1993) assumed that people of low media literacy skills level may understand some aspects and techniques of media messages and media production, while people of high level of skills can understand latent meanings, inaccuracies, rhetorical styles, and different genres

(Tawfik, 2003). This explains how a high-level of media literacy skills helps in interpreting the appeared and implied meanings in a media message and how a low-level of media literacy skills helps in understating some of the message aspects.

Recently, UNESCO suggested a model to include the required practical competences needed for 2015 and beyond in order to deal effectively with information in our lives. The model merged the information, media and ICT skills together to be classified into: *"access/retrieve, understand/evaluate and use/create various forms of media information"* (Figure 1). Access/Retrieve skills are skills such as: *"defining and articulating media and information need"*, *"location and retrieval of media and information"*, and *"curation intelligence and transmedia navigation skills"*. Understand/Evaluate skills include skills of understanding *"the content, format, institutions and audiences of media and information, and wisely assess them"*; also noting the Web 3.0 age that requires *"computational thinking, cognitive load management and photo-visual skills"*. Use/Create skills postulate that the person communicates ethically with media information, adding to that the skills of *"knowledge creation and creative expression"* abilities (Lee, Lau, Carbo, & Gendina, 2013).

News Media Literacy:

News media literacy is defined as *"the knowledge and motivations needed to identify, appreciate and engage with quality journalism"* (Craft, Maksl & Ashley, 2013a). News media literacy importance comes from its power to enhance the raised *"news consumption, civic engagement, and democratic participation"* by improving a person's knowledge about journalism goals and what affects news media content (Ashley, Maksl & Craft, 2013b).

Furthermore, news media literacy can be considered as a branch of media literacy that aids in acquiring skills of access, evaluation, analysis, and creation of news messages instead of general media messages. This particular branch needs more studies in order to provide youth with the required skills to encourage them to deal with news critically, and to participate in civic and political life (Craft, Maksl & Ashley, 2013a).

Moreover, news media literacy focuses now on the knowledge of the news industry, effects, economics, ownership, content, values, and its positive or negative consequences. Providing this aspect of self-awareness is crucial to protect people from disinformation and misrepresentation of the real world that mislead people's opinion through incorrect information (Craft, Maksl & Ashley, 2013a).

The function of news is to inform citizens (Ashley, Maksl, & Craft, 2011), thus making media literacy a necessity for all. News provides audiences with undistorted and accurate information as a means to achieve democracy. Basic media literacy helps audiences to distinguish between facts and opinions (Moeller, 2009).

Media literacy provides us with skills that facilitate communication and help in learning about media rights and regulations. Furthermore, it enables freedom of expression, accessing information and participating in the political life. Media literacy basic level helps in differentiating between fact and opinion. Also, it focuses on understanding the news and information values, media message force, the important role of the audience in setting media agenda. All these aid in building pluralistic and accountable societies (Moeller, 2009). Media literate people possess certain skills suggested by Moeller (2009). They are:

- *"Identify what 'news' is and how media, as well as other actors, decide what matters.*

- *Monitor and analyze media coverage of people and events.*

- *Understand the media's role in shaping global issues.*

- *Defend media in their oversight of good government, corporate accountability, and economic development (the watchdog role of media).*

- *Promote civil society by becoming a responsible part of the communication chain.*

- *Motivate media professionals to cover news better by communicating to media organizations their expectations for accuracy, fairness, and transparency".*

News Processing and Political Knowledge

News media has a role in gaining political knowledge, and many scholars in the political communication field have studied this relationship (EVELAND Jr, 2001; Macleod, Kosicki, and Macleod, 2009, p. 231; Eveland Jr., 2002). Studies have proven that digital divide happens when differences occur between individuals/groups in the access and usage of new *information technologies* (Leavitt & Whisler, 1958), while knowledge gaps occur when there are discrepancies in *processing abilities* and *cognitive complexity* (Macleod, Kosicki, and Macleod, 2009). An expert in a certain field has more knowledge than other people and has developed strategies to deal with information of his field. Moreover, education reinforces the cognitive skills and the needed concepts to regulate political information and increase political interest. In general, intelligence, experience, interest and education are factors that affect the political information processing (Graber, 1988, pp. 242-243).

Information Processing Strategies:

There are three different strategies of the information processing: *selective scanning, active processing, and reflective integration*. These strategies are used by the active audience to deal with the huge amount of information when the audience is exposed to a certain message (Macleod, Kosicki, and Macleod, 2009). *Reflective integration* strategy means an audience can integrate media information with existing ones. *Active processing* strategy refers to deeply understand the meaning of media information, and *selective scanning* strategy indicates the audience's selectivity of processing information related to each individual's interest while ignoring others (Schemer, Matthes & Wirth, 2008). The information-processing strategies are used to process news information as the selective scanning, and the active processing helps the audience to intensely interpret the story depending on the needs of a person, and the reflective integration assists the audience to recall the story and use it in any discussion (Macleod, Kosicki, and Macleod, 2009, p. 240).

***Political Information Processing Strategies*:**

Other scholars suggested another three strategies for processing political information: *relatedness search, segmentation*, and *checking. Matching relatedness* strategy means people connect the received information to the related stored information in the memory. *Segmentation* refers to the message division into sub-information to match each one with the stored related information instead of dealing with the whole message. The last strategy is *checking,* which implies the persons' continuous search for more related information to improve information processing instead of accepting the first related information that comes to mind (Graber, 1988, pp. 151-164).

The previous strategies have different classification**s** according to each scholar, but the definitions are similar. *Segmentation* is like *selective scanning, checking* is like *active processing and relatedness* is like *reflective integration.* Therefore, processing information strategies are similar, and using any of the three strategies can be effective in measuring the information processing role in gaining knowledge. Also, the concept of attention mentioned in the Cognitive Mediation Model is similar to the concepts *segmentation* and *selective scanning.* However, the measures for each concept differed according to the operational definition developed by scholars.

Moreover, EVELAND (2001) demonstrated that although reflective integration concept is like elaboration, reflective integration measurement involves the post-exposure discussion *"interpersonal discussion"* of news while elaboration measurement doesn't. Eveland (2002) concluded that previous studies connected political knowledge to reflective integration involving many control variables such as media use.

Study Significance

The research aimed to identify the relation between the level of news media literacy skills and the type of news processing, and levels of political knowledge. In addition to testing the relation between the level of political knowledge, and the levels of media gratifications sought, the levels of news media reliance and the levels of the elaborative processing.

Furthermore, this research aimed to develop a scale for measuring news media literacy skills. Certainly, the researcher adapted previous scales' items according to this research conceptual framework in order to create a new scale for measuring news media literacy skills. Furthermore, each variable included more than one factor that was selected depending on the theoretical concepts presented in the literature review. Items on scales were also tested on a sub sample then statistically examined through factor analysis for refining the final items of the final survey. The research questions, hypotheses and the diagram explain the relationships between the variables of the research that was derived from the problem statement.

Moreover, this research contributed to the field by proposing a new scale for assessing news media literacy skills that has been derived from previous scales, with adaptation to Egyptian context and the proposed conceptual framework. The initial design of the Scale of News Media Literacy Skills (SNMLS) included 41 items that focused on online newspapers. Therefore, these items were tested in the pre-test survey in order to refine them. The scale depended on assessing seven main skills which are: 1) Access Skills, 2) Retrieve Skills, 3) Understand Skills, 4) Use/ Communicate Skills, 5) Analyze Skills, 6) Evaluate Skills, 7) Create Skills. In addition, the News Processing Scale included eight scale items; four items for each mode of Heuristic and Systematic news processing. To do so, it used the heuristic systematic news processing scale developed by Schemer, Matthes & Wirth (2008), and measured levels of political knowledge.

The research assessed the political knowledge level with the intention of assessing the factual and structural political knowledge through multiple choice questions. Moreover, the cognitive mediation model measures used by this study are media gratifications sought (surveillance and anticipated interaction), news media

reliance and elaborative processing. The study used the scale items used by Beaudoin C. E., & Thorson E. (2004). (For more information see Appendix k).

Research Problem, Questions and Hypotheses

Problem statement

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.

Every day, thousands of events happen throughout the world and are transmitted through mass media with different views that are based upon numerous factors that shape any media message. Accordingly, presenting news with different views requires critical understanding, analyzing and evaluation, not only regarding the message, but also production techniques and the ideologies of the people who participate in producing the news message.

The audience needs to gain the skills in order to avoid negative media effects and benefit from media's positive attributes. The importance of media skills cannot be overstated as they are the means to acquire the much needed critical awareness for individuals. Coupled with that, 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. It also examined the relationship between the variables to identify people's levels of news media literacy skills, news processing modes and political knowledge levels without ignoring the intermediate process of news information processing. The conceptual framework of this research demonstrates the variables' relationships (Appendix A).

The following research questions and hypotheses demonstrate the relations that were tested in this research. In addition, Figure (6) suggests a model for the relationship between news media literacy skills, heuristic-systematic news processing and political knowledge level.

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.

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                    ┌─────────────────┐
                    │   News Media    │
                    │ Literacy skills │
                    └─────────────────┘

      ┌──────────────────┐        ┌──────────────────┐
      │ Low level of Skills│      │ High level of Skills│
      └──────────────────┘        └──────────────────┘

  H1a              ┌──────────────────┐              H1b
Supported          │ Controlling Variable│          Supported
                   │ Educational field │
                   └──────────────────┘
                                                        H3a
  H3b      ┌──────────────────┐  ┌──────────────────┐  Rejected
Rejected   │ Heuristic News   │  │ Systematic News  │
           │   Processing     │  │   Processing     │
           └──────────────────┘  └──────────────────┘

              H2a                    H2b
           Supported              Rejected

        ┌──────────┐      ┌──────────┐
        │ Low level │      │ High level│
        │of political│     │of political│
        │ knowledge │      │ knowledge │
        └──────────┘      └──────────┘
                                 MGS
                        H4      Rejected,
                                NMR & EP
                                Supported

              ┌────────────────────────┐
              │ High level of Media    │
              │ Gratifications Sought,  │
              │ News Media Reliance     │
              │ and Elaborative         │
              │ Processing              │
              └────────────────────────┘
```
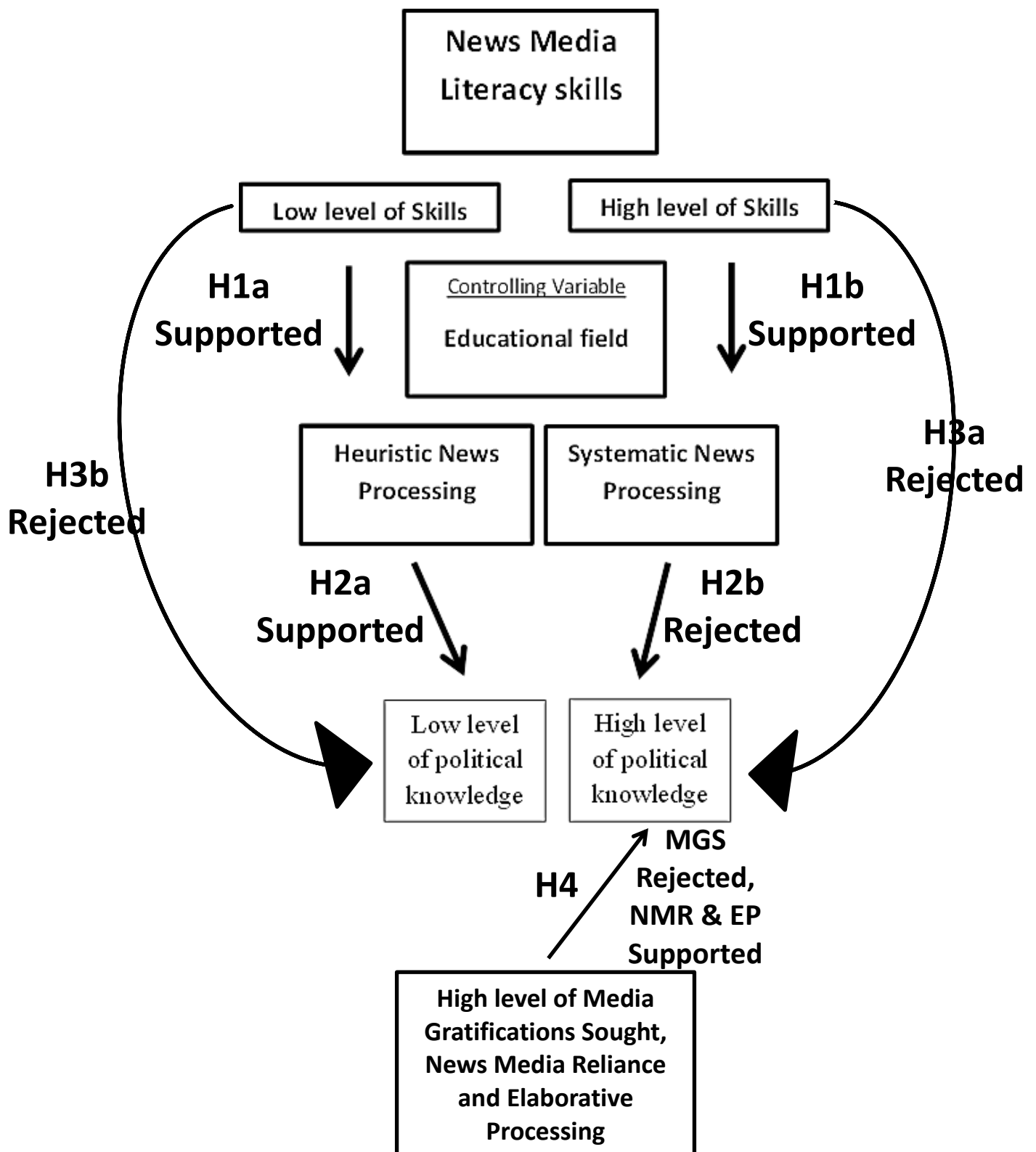
Figure (6): A Model explains the relationship between news media literacy skills, heuristic-systematic news processing and political knowledge level suggested by the researcher

Chapter 3: Methods

Study Design

<u>Method</u>

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. Specifically, there were some advanced questions that were replaced with suitable 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 two 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. Secondly, 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 pre-test 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.

Measurement

Study Variables

A) The Dependent and Independent Variables

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

Independent Variable. The level of news media literacy skills is the independent variable that is divided into three levels which are low, medium and high levels of skills. Also, news media literacy skills include seven main skills which are: 1) Access Skills, 2) Retrieve Skills, 3) Understand Skills, 4) Use/ Communicate Skills, 5) Analyze Skills, 6) Evaluate Skills, 7) Create Skills. The research developed a scale for measuring these skills depending on scales used previously in other studies.

Dependent Variable. The news information processing engages two modes which are the systematic and heuristic news processing. A scale was developed for measuring these two types depending on previous ones used by Schemer, Matthes & Wirth (2008).

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

Independent Variable. The news information processing with its two modes is the independent variable. Each mode measured through three levels which are low, medium and high that affects the two levels of political knowledge.

Dependent Variable. Testing the political information and knowledge was through examining two levels which are high and low. The political information and knowledge is assumed to be affected by the mode of information processing.

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

Independent Variable. The students' level of news media literacy skills is supposed to affect the level of political knowledge.

Dependent Variable. Exploring the relation between the level of political knowledge and news media literacy skills level aimed to show us how the dependent variable is affected by news media literacy skills level.

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?

*Independent Variable*. The levels of media gratifications sought, that included two factors, were tested by examining the relation of each factor with dependent variable levels of political knowledge. Also, levels of news media reliance and levels of elaborative processing were tested with the levels of political knowledge.

Dependent Variable. Levels of political knowledge are supposed to be increased with the increasing of the levels of the three dependent variables which are: media gratifications sought, news media reliance, and elaborative processing.

B) Controlling Variables

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 as shown in figure (7). 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.

Figure (7): Diagram explains the relationship between

the research main variables and the controlling variable
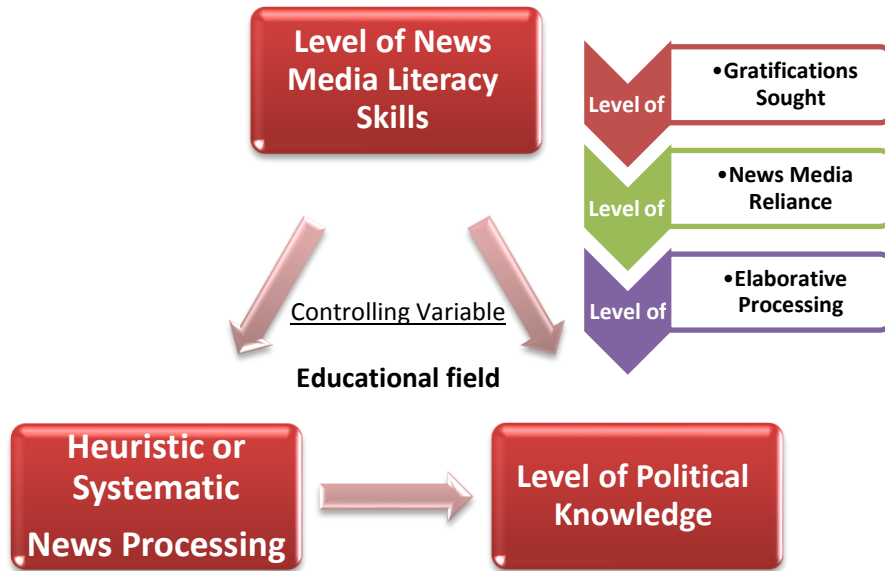
The initial plan aimed to control for the media and politics fields, but for two reasons the researcher controlled for all educational fields. Firstly, because the sample is students at the American University in Cairo who are well educated and they may be studying elective courses from media or political science departments. Secondly, the results revealed that more than 70 % of students have high news media literacy skills as shown in Figure (8). 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 (8): Levels of News Media Literacy Skills among American University Students 2014

SNMLS levels

25
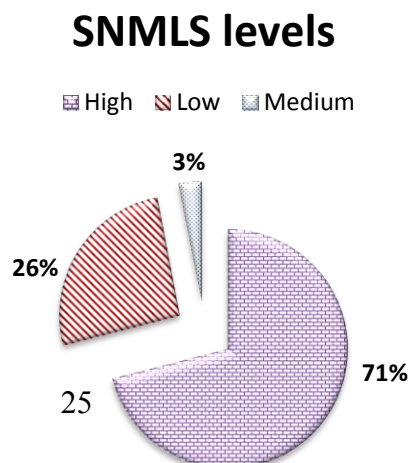
Operational Definitions and Measures

A. *Media Literacy Measures*

UNESCO's new model recognizes use skills as the highest level of media literacy skills, and relates that to creation and creativity skills. This classification contradicts previous models and media literacy definitions that consider use skills as the lowest level of media literacy skills, and relates it to access skills such as *"Media literacy assessment criteria model,"* which is based on the media literacy definition of the European Commission which divides each skill into three levels; from basic to advanced) (Tornero & Pi, 2011). The *"Media literacy assessment criteria model"* suggested by Tornero & Varis (Tornero & Varis, 2010), and UNESCO's old definition of media literacy has become the popular means and used by other scholars in their studies (Criticos, 1999; International Conference, 1999; UNESCO, 2011; Kubey, 1997 cited by Fedorov, 2003; Hobbs, 2005; Hobbs, 2010; Tornero & Varis, 2010; Tornero & Pi, 2011; European Commission, 2007; The College Board, 2006; SINGER, D. G., & SINGER, J. L., 1998; Baker F. W., 2012; EAVI, 2009; Fedorov, 2003; Hobbs & Frost, 2003; Hobbs, 2004; Jolls, 2012; Aufderheide & Firestone, 1993 cited by Jolls, 2012).

According to any model, whether old or new, there are many indicators for measuring each skill of media literacy depending on the study variables and the researcher's view of the gradual arrangement of skills level. For instance, the *"Media literacy assessment criteria model"* (Figure 2), measures critical understanding skills by dividing it into three components: *"Understanding media content and its functioning, knowledge about media and media regulation, and user behavior"*. For the first component there are five indicators, for the second component there are eight indicators, and for the third component there are three indicators (EAVI, 2009). Adding to this, some researchers composed indicators for measuring each skill according to their assumptions, study's perspectives, and a basis of previous studies (Lim & Theng, 2011; Arke, 2005; Burson, 2010; Arke & Primack, 2009).

B. *News Media Literacy Measures*

Due to a lack of studies, only two studies have used different measures for news media literacy, and another, separate study repeated one of these measures. One of the two studies adapted the smoking media literacy scale developed by Primack, Sidani, Carroll & Fine (2009), while the other study developed a novel model for measuring news media literacy knowledge to determine the highly news media literate people based on Potter's model (2005).

The smoking and news media literacy scales include three domains which are: *Authors and audiences (AA), messages and meanings (MM), and representation and reality (RR)*. The first domain refers to profit desire of authors to target certain segments of audiences. The second domain reflects the different interpretations of media messages by different people upon receiving them, and the varying techniques used to influence their attitudes. The last domain concentrates on media filtration of the information presented in order to influence audience's perceptions about reality (Ashley, Maksl & Craft, 2013b; Primack, Sidani, Carroll & Fine, 2009).

The scale developed by Primack, Sidani, Carroll & Fine (2009) to measure smoking media literacy among college students achieved high strength of face validity and internal reliability. The findings if (of the study?) study used the smoking scale found a significant association between high level of smoking media literacy and low level of current smoking.

The news media literacy scale developed depends on the mentioned domains and the opinions of media literacy experts. The scale included 117 items reflected from the smoking media literacy scale, with slight changes in some items by changing one or two words. The items were then reduced to only 15 items on several stages (Figure 3). Each statement in the scale has a score range from 1 for "strongly disagree" to 7 for "strongly agree" on a 7-point Likert scale (Ashley, Maksl, & Craft, 2011; Ashley, Maksl & Craft, 2013b).

Craft, Maksl & Ashley (2013a) results revealed that students of a high news media 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 a significant positive relation between the two variables.

Craft, Maksl & Ashley (2013a) view Potter's model important because it focuses on the ways of processing the information and the knowledge required by each person to be primed for media exposure. Potter's model (2005), suggested four factors which are: *knowledge structures, the personal locus (information processing decisions), personal competencies and skills, and the flow of information-processing tasks*. The first factor "knowledge structures" aims to improve people's decisions in dealing with information and it includes five main points: *"Media effects, media content, media industries, the real world, and the self"*. The second factor "personal locus" focuses on the person's qualification in dealing with information, in where these qualifications include an individual's awareness of their goals and motives that control *"the information-processing tasks"*. The third factor is the skills and competences that the person has to assess media messages such as: *"analysis, evaluation, grouping, induction, deduction, synthesis, and abstraction"*. The fourth factor "the three tasks of information-processing" explains the tasks of dealing with media messages whether by ignoring it or dealing with it. These tasks are: *"filtering, meaning matching, and meaning construction"* to process media messages by realizing/decoding symbols, attaching it to the learned meanings then constructing the final meaning of the message (Figure 4).

Craft, Maksl & Ashley study (2013a) suggested and tested a News Media Literacy model that was based on Potter's model explained previously. Their model assumed that the more knowledge about news content, productions' conditions, and news impacts on people, the more control and consciousness the person has about news consumption. Consequently, the person will be highly news media literate. The model suggested three assumptions in order to formulate news media literacy measures. The researchers supposed that news media literacy differs from person to another according to: *"1) the degree to which one engages in mindful versus automatic thought-processing of news, 2) the degree to which one perceives him/herself as being in control versus the news media being in control of the influence of news media, and 3) the knowledge one has of the institutions that produce news, the way in which the content of the news is produced and the effects of that content on people"* (Figure 5).

For measuring the "Automatic versus mindful thought-processing", the researchers formed a 5-point Likert scale "need for cognition" which was composed

of five-items scored from 1 "strongly disagree" to 5 "strongly agree". "Person in control versus media in control" measured through a 5-point Likert scale that included six items scored from 1 "strongly disagree" to 5 "strongly agree". Multiple-choice questions, with only one right answer, were used to measure the three categories of "knowledge about the news media system" that involved factual knowledge about *"U.S. media industries", "the typical content frames in which much news is produced",* and the expected influences of news can have on people (Craft, Maksl & Ashley, 2013a).

Despite the different measures presented before, scholars are still developing new, precise measurement for news media literacy skills. This research developed a new scale for measuring news media literacy skills 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 setting 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.

The skill of transmedia navigation that relates to the access/retrieval skills in UNESCO's model is omitted from the measures (Lee, Lau, Carbo, & Gendina, 2013). That is due to the fact that the concept of transmedia is broad, and has different point of views regarding the inclusion of entertainment material only, or to also include digital narratives that are not available in classic mass media. This concept needs the user ability in order to interact with the material and access different levels of difficulty which is not available in accessing/retrieval of news (Heick, 2013; Screen Australia, 2013)

In operationalizing the skills definitions in the SNMLS scale, Monitoring skills mentioned in UNESCO's model, that includes the indicator "Media and information criticism and monitoring" (Lee, Lau, Carbo, & Gendina, 2013), is merged with analysis skills in the suggested model, and organization and synthesis skills are integrated into evaluation skills (Table 1).

Table 1: Measures of News Media Literacy Skills

	Measures	Operational Definitions
News Media Literacy Skills	1) Access Skills	Technical skills needed to access news through online newspapers.
	2) Retrieve Skills	Skills needed to search, find, select, and store news information from online newspapers.
	3) Understand Skills	Skills needed to understand news media content, values, effects, news different formats, information about news producers and their production aims, and understanding data to form abstract concepts.
	4) Use/ Communicate Skills	Skills needed for effective communication, using interactive tools of online newspapers, ethical use and share of news information and security practice.
	5) Analyze Skills	Skills needed to critically distinguish between news message's different parts, criticize and monitor news information, question about news message aims and

		producers' techniques, differentiate between facts and opinions, and discriminate between different concepts mentioned in the news.
	6) Evaluate Skills	Skills needed to filter the useful and important information, merge information that relates to other previous or current information, organize information in the mind to become easily available, determine a deeper meaning of news message, assess quality and validity of news messages, photos, charts and graphs, and appraise production goals and techniques.
	7) Create Skills	Skills needed to ethically form news media message, produce news audiovisual products, use different news production techniques and formats, produce online news materials, ethically share and publish produced materials through online newspapers and the internet.

C. **Heuristic- Systematic News Processing Measures**

Kahlor et al. (2003) measured *the systematic-heuristic information processing* through 10 items on a 5-point Likert scale that ranged from strongly agree to strongly disagree. Seven items were specified for measuring systematic processing, reduced to six items. And three items were used for measuring the heuristic processing. The researcher assessed the *information sufficiency* by including two factors which are *"one's perceived knowledge about the risk"* and *"the level of understanding that one feels is needed to make a confident decision"* that are measured through a self-reporting scale ranged from zero to 100 for each factor. Their study proved a positive relation between the perceived amount of information needed and systematic processing of risk information. Also, results revealed that there is a non-significant relation between the perceived amount of information needed and heuristic processing. Although the previous result, there is a negative correlation between heuristic processing and story information gathering capacity.

Furthermore, Schemer, Matthes & Wirth (2008) measured motivation through two items by considering it as *the personal and social relevance of the issue* that is tested in the study. Moreover, ability measured through one item about following the issue which is *("I feel capable of finding the relevant information that I need")*. The researchers established 3 studies for developing a scale concerning the cognitive mediation measures and news processing strategies. The results revealed that two-dimensional factor is more effective than one-dimensional factor. The items presented in the final scale were examined on German respondents and they mentioned it equally good if used with English speakers (Schemer, Matthes & Wirth, 2008).

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. After executing the factor analysis of the scale's items, four out of the eight items remained for each mode. Following that, some items were paraphrased to give a more general understanding instead of referring to a specific medium.

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. The operational definitions of heuristic systematic news processing modes are used in this research from the Eagly & Chaiken (1993) and Schemer, Matthes & Wirth (2008), which both have the same meaning (Table 2). This research used the scale with an alteration of asking about political issues in general instead of asking about certain topics (Table 3).

Schemer, Matthes & Wirth (2008) concluded from reviewing previous survey studies about information processing and gaining knowledge that there is interference between the information processing strategies and media effects models. In addition, the purpose of a study is the key to decide how many factors for measuring media information processing. They explained that one dimensional factor is effective for measuring learning from media information processing, while two dimensional factors are more appropriate for measuring *attitudes or predict judgments*. For example, measuring the mental effort can be through a bio-polar *scale ranging from low to high mental effort*. Therefore, they selected two dimensions for measuring media information processing and suggested the heuristic systematic scale that tested and refined in their study.

Table 2: Measures of News Information Processing

	Measures	Operational Definitions
The Heuristic-	1) The systematic news processing	Eagly & Chaiken (1993), defined the systematic processing as the processing mode that requires analysis and effort for processing the message. And the *"sufficiency principle"* supposes that people will do the utmost effort to achieve the *"sufficient degree of confidence"* to fulfill their *"processing goals"* by holding the correct attitudes. Schemer, Matthes & Wirth (2008, P.17), operationalized it as "an elaborate engagement with media information and an interest in specific details."

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Systematic Model	2) The heuristic news processing	Eagly & Chaiken (1993), demonstrated the heuristic processing as the simple mode to judge a message or take a decision, adding to that the *"least effort principle"* that supposes that people tend to do less effort than doing more effort as in the systematic mode which ignores their motivational need to have the correct attitudes. Schemer, Matthes & Wirth (2008, PP. 17-18) operationalized it as "a superficial way of media information processing" and the tendency of "the heuristic processors to get the main points of an issue of media outlets."

D. The Cognitive Mediation Model Measures

With regards to the cognitive mediation model measures, EVELAND (2001) demonstrated that some scholars considered these concepts *"surveillance gratifications seeking, news media attention, and elaborative processing"* as being involved in the concept of "*political involvement"*.

In addition, Eveland's (2002) cognitive mediation model treats the problem of measuring *information processing;* that caused by self-reporting surveys because of the difficulties of measuring its factors, which are the short time and differences between people. Therefore, the model uses a self-reporting survey to measure *"general tendencies and/or individual differences"* without ignoring the *"variations over time and across contexts"*.

News Media Gratifications are measured by identifying three factors which are: *Surveillance, Guidance* and *Anticipated Interaction*. Each factor included three items on a 4-point Likert scale, scores ranging from 1 = strongly disagree to 4 = strongly agree (Beaudoin & Thorson, 2004). The results proved a positive correlation exists between surveillance gratifications seeking and elaborative processing, anticipated interaction gratifications seeking and elaborative processing. The relation is significant after controlling for demographics(Beaudoin & Thorson, 2004). V.-h. Lo et al. (2013) used the same measurement for *surveillance gratification seeking from news* on a 5-point Likert scale. In addition, there is *News Media Reliance for political information* that is assessed in newspapers and television through two items on a 4-point scale with responses ranging as 1 = none, 2 = a little, 3 = some, and 4 = a

lot (V.-h. Lo et al., 2013). Eveland (2002) evaluated *Surveillance Motivations* on a 6-point scale ranged from 1= definitely disagree to 6= definitely agree through five items. Additionally, Jensen (2011) assessed surveillance gratifications seeking through scale items about general political information and specific ones.

Furthermore, Eveland et al. (2003) measured *News surveillance motivation* through a scale adapted from *"Levy's (1977) television news surveillance-reassurance index"* to include six items on (disagreement-agreement) a 7-point scale plus motivation sub-scale. The cognitive mediation model measures were tested in Eveland et al. (2003) study through cross-sectional path modeling when controlling for time. The results revealed a positive relation exists between surveillance gratifications seeking and news media attention, surveillance gratifications seeking and elaborative processing, and news media attention and elaborative processing. Also, there is a positive relation between news attention and knowledge, news attention significance and news elaboration, and between news elaboration and knowledge.

Beaudoin & Thorson (2004) used *"measures of news reliance, elaborative processing news media gratifications sought and political knowledge"* depending on scales developed in previous studies. The results of Beaudoin C. E., & Thorson E. (2004) confirmed that the positive relation between media gratifications sought and political knowledge is non-significant. Also, there is a significant positive relation between news media reliance and elaborative processing with political knowledge. As well, Eveland's (2002) study measured *motivations* for printed and televised news media use with the same measurement items of the news uses and gratifications research.

In a study aimed to investigate the relation between media functions and news processing on probability sample through telephone interviews, the researchers measured media use by determining attention to news on a 5-point Likert scale ranging from *very little to a great deal* for four categories which are local, national, international, entertainment printed and televised news and excluded internet news (Guo and Li, 2010). Moreover, *media use* was measured in another study through two factors which are exposure and attention (Neuwirth, Frederick & Mayo, 2002).

News Attention measured by using a 10-point scale scored as *1 for very little attention to 10 for very close attention* through two items about specific issue**s** in television and newspapers; one item for each medium (Eveland et al., 2003). Further testing from Fleming & Thorson (2008) measured *attention to news* in the local newspaper, television and *search information through internet*. They composed three additive indexes; one for each medium. The first and second indexes, for print and televised news, included three similar items, each ranged on a 7-point scale ranging from 1 (little attention) to 7 (very close attention) such as: *''How much attention would you say you pay to local newspaper stories about issues such as education, environment, and health care in Columbia?''*. The third index included four items on a 7-point scale scored from 1 (never) to 7 (very often) (Fleming & Thorson, 2008).

Eveland (2001) assessed *news media attention* through items' scale about national government, general politics and specific issues in printed and televised news. His study findings proved a positive correlation exists between surveillance gratifications seeking and news media attention, surveillance gratifications seeking and elaborative processing, and news media attention and elaborative processing. The correlation between surveillance gratifications seeking and knowledge of a political issue is non-significant and some significance when controlling for demographics variables (Eveland, 2001). Also, the results indicate a high mediation effect on the relation between elaboration and knowledge. News attention was also measured by the typical indicators which included the "attention level of national government and politics" for both printed and televised news (Eveland, 2002). Eveland Jr. (2002) used two statistical methods to get the results which are regression and direct tests of mediation. The study results revealed that there is an indirect effect of gratifications sought (surveillance) on knowledge that is showed (.15) level of significance. At the same time the results proved insignificant direct relation between gratifications sought (surveillance) and political knowledge. The results confirmed significant relation between news media attention, elaborative processing and the political knowledge, as well.

Moreover, *attention to news* measured through a 4-point scale (none, a little, some, a lot) to assess how much attention is given to (category/ topic) information in the news (Jensen, 2011). V.-h. Lo et al. (2013) used the same measurement for attention to news on a 5-point Likert scale to be measured from 5 (meaning „a great

deal of attention") to 1 (meaning „no attention paid"). Griffin, Neuwirth, Giese, & Dunwoody (2002) evaluated *attention to news* by involving two factors which are general attention that is specified for newspapers, television and interpersonal discussion, and the second factor which is radio attention. Items were measured about certain issues on an 11-point scale where (0 = no attention and 10 = a lot).

In addition, the model adds the elaboration to the measurement of information processing and considered it as the process of matching new information with previous information that is stored in the memory (Eveland, JR., 2001).

In general, *Elaboration* measured through agreement- disagreement 5-point Likert scale to assess the audiences' ways of using media (EVELAND, 2001; V.-h. Lo et al., 2013). *News Elaboration* measured on a 6-point scale ranged from 1= definitely disagree to 6= definitely agree through 4 items (Eveland et al., 2003). Also, Fleming & Thorson's study (2008) measured two strategies of information processing as mediating variables which are elaboration and active reflection by specifying three items for elaboration and four items for active reflection scored on a 7-point scale ranging from 1 (not at all) to 7 (very much). The findings confirmed a mediation effects of information processing strategies on the relation between local media use and informational use of internet, and the outcome variables (interpersonal trust, reciprocity, associational membership, etc.) (Fleming & Thorson, 2008).

Furthermore, Eveland (2002) measured *elaboration* through the three items on a 5-point Likert scale. Two items are positively paraphrased to measure thinking plus interpreting of news stories, and one negatively paraphrased item related to thinking about news. Additionally, V.-h. Lo et al. (2013) assessed *elaborative processing* measures including three items, one of them (reversed) on a 4-point Likert scale with scores ranging from 1 = strongly disagree to 4 = strongly agree.

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 (Appendix K).

The measures used are media gratifications sought, news media reliance and elaborative processing. Media gratifications sought includes two factors which are

surveillance and anticipated interaction. The surveillance factor includes 3 items and the anticipated interaction factor has 3 items.

News media reliance includes 4 items that are removed because it covers other media, and the item asking about the internet is adapted to ask about online newspapers; thus, this variable includes one item. The elaborative processing variable has 3 items. All these items were reduced after examining them through the factor analysis.

E. Political Knowledge Measures

Previous studies revealed that political knowledge variables can be measured through multiple choice questions with one correct answer, correct – don't know - incorrect questions and calculating "don't know" scores as incorrect, and open-ended questions. The questions can be about general political information, a specific issue or a mix of questions about general political information and specific information about certain issue**s**.

Eveland et al. (2003) measured political knowledge by multiple choice questions about specific issue. In addition, Beaudoin & Thorson (2004) political knowledge assessed through four questions about specific topics**;** three are open-ended questions, and one multiple choice with one correct answer. Moreover, Eveland (2002) evaluated political knowledge through the correct-incorrect method with 14 items, considering "don't know" as incorrect, and where six items were about certain issues and eight items were about general political information. The knowledge gain variable was measured through 14 items on a scale scored from zero to fifteen in which each correct answer gets one point after calculating the 15 items of the knowledge index (V.-h. Lo et al., 2013).

Some scholars consider political knowledge as the link between processing political information and taking political actions or decisions (Ahmed, 2011). There is a difference between measuring political information and political knowledge. 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). For measuring political knowledge, scholars clarified the difference between political information versus political knowledge in order to avoid measuring political information as political knowledge (Elo & Rapeli, 2010; Ahmed, 2011). Therefore, factual and structural political knowledge are considered as the two dimensions of measuring political knowledge (Ahmed, 2011).

Factual political knowledge is testing factual information, while structure political knowledge is testing permanent information stored and organized in the memory that forms the person's political attitude or ideology (Elo & Rapeli, 2010; Ahmed, 2011). Elo & Rapeli (2010) measured factual political knowledge by asking about the names of individuals involved in politics or party names on a scale ranging from 0 to 6, and measured structure political knowledge by asking about their parties' tasks on a scale ranging from 0 to 8. Each correct answer was given one point. Consequently, this research followed this classification in measuring political knowledge because it is simple and clear, but used multiple choice questions (Table 6).

Table 3: Measures of Political Knowledge

	Measures	Operational Definitions
Political Knowledge	1) **Factual** political knowledge	Factual political knowledge measured by asking about names of political officials, titles of political officials' positions, names of national political figures, and Egyptian party names.
	2) The **structural** political knowledge	Structure political knowledge measured by asking about tasks of political officials, political process to elect a president, governmental ministers, parliamentary candidates, and asking about political events that have been recently in the news.

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 and the complete questions are in Appendix (C).

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	Basics 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 of 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. The results explain the correlation between the study variables depending on the three groups of the sample (Media, Politics and other fields). To measure the political knowledge, the researcher depended on the scale of three main categories which were correct answers, incorrect and don't know. Students who answered correctly were given 1 point for each correct answer, and zero points for incorrect and for don't know. The high level of political knowledge included the correct answers of more than 5 questions out of 10, while low level of political knowledge included answering less than 5 correct answers out of 10.

The scale that measure opinions and beliefs is agreement- disagreement 5 point Likert scale. Strongly agree scored 5 points , agree 4 points , neutral 3 points ,

dis agree 2 points and strongly disagree scored 1 point . The scale that measured the behaviors is: Never (1 point) , Rarely (2 points) , Sometimes (3 points) , Often (4 points) and Always (5 points) .There is another scale that measured the news media reliance through one item which is: None (1 point) , A little (2 points) , Some (3 points) A lot (4 points), and Complete (5 points).

The researcher considered the easy and difficult questions as non- indicators of political knowledge level. Therefore, questions of medium difficulty were kept in the final survey. In addition, the final survey included 10 questions for measuring political knowledge with at least one difficult and one easy question. Easy questions are considered those questions that received more than 70% correct answers and difficult questions are those questions that received more than 65% don't know and/or incorrect answers. Also, table (5) shows the political knowledge questions tested in the pre-test and removed from the final survey.

Table5: Political knowledge questions mentioned in Pre-test survey & removed from the final survey

Questions	Reasons
How many four-year terms can the president of Egypt be elected for by popular vote?	Easy question: more than 85% answered correctly
How many seats of the parliament have been assigned according to the new constitution?	Difficult question: about 65 % answered don't know and incorrect
How many Egyptian parties exist?	Difficult question: more than 80 % answered don't know and incorrect
Which party held the seat majority in the last elected parliament (2011-2012)?	Easy question: more than 85% answered correctly
Who is the current interim president of Egypt?	Easy question: 100% answered correctly
Which president was ousted in the Egyptian Revolution of January, 2011?	Easy question: more than 80% answered correctly
Who is the Chairman of the Committee of 50 ?	Easy question: more than 70% answered correctly
What do you know about the definition of "Proportional Representation"?	Difficult question: more than 75 % answered don't know

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 population 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 this study, the initial sample was 39 students and the supplementary was 173 with a total sample of 212 students; 136 of them completed the survey, and the study used all the responses with missing cases that is shown in every table. The sample size counted on the number of students who responded to the email message and took the survey.

However, from all the cases used in the final survey results, only the completed surveys were considered in the pre-test survey to reduce scale's items and political knowledge questions. 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. In order to increase responses in the final survey, the researcher asked the American University in Cairo's portal to send an email to all students (graduate and undergraduate), who have active emails, during Spring 2014. The students who have active emails received an email message to take an online

survey through a link on surveymonkey.com. The survey was opened for a few days to collect responses. Due to time limitation, the survey closed within a short time period in order to obtain results before the ending of the Spring semester .

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.

Online surveys focus on audiences with frequent access to the internet. The audiences' preferences, opinions and attitudes are not known until researchers test and explain them through their studies. As a result, this research used this online survey, and also because of the internet popularity among youth.

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.

Ethical Consideration (IRB)

The researcher submitted the IRB form through the American University in Cairo IRB website. The researcher got the approval on 27[th] March 2014 and there is a copy of the approval attached at the end of the thesis. The survey was conducted online through surveymonkey.com therefore; the consent form was the first page of the survey that considered proceeding on the survey is an agreement of the consent statements. A copy of the online consent is attached (Appendix I).

Factor analysis and pre-test results

This study uses factor analysis to reduce the items under each factor by focusing on the items with high loadings. Factor analysis is important in developing scales. Garrett-Mayer (2006), explains the importance of factor analysis by stating that it helps avoid redundancy or duplication in a group of variables for a factor. Also, Field (2005), emphasizes its importance because factor analysis aims to ensure that the researcher inquiring about an ability or trait has the questions that are related to the construct he built.

In this study, the researcher tested the relation between the variables and reduced the items by removing the items of low loadings in each factor. The SPSS software provided the results in tables that showed each item loading under each Factor (Appendix D).

The high loadings of the items per factor are considered 0.7 and above. This is demonstrated in the table of each factor in the columns of the first and second solutions by using principal component analysis as an extraction method. Some factors have one solution, others have two, while others have three or four solutions. Statistically, the first solution, considered as the strong solution, includes the items which are highly related to the factor. The second or third or fourth are cumulative solutions which support the first solution by adding other items with high loadings. In other words, the strongest items that measure a construct are provided in the first solution and then come other items in the further solutions. For this reason, the researcher selected the first and second solutions to reduce the items of each factor for the scales presented in the study News Media Literacy scales, Heuristic- systematic scale and Cognitive Mediation measures.

Tables of each factor demonstrate the percentage of variance in the pre-test sample that included 22 respondents. Some items, removed from the scale, can be used in future studies because they have good strength on the factor loadings (>0.5). In reality, the study tried to reduce items' number by focusing on items that are ($\geq$ 0.7). In the news processing modes (Systematic and Heuristic), the researcher considered ($\geq$0.6) as good strength. Consequently, three items were kept to measure each mode.

The extraction method used in the factor analysis is principal component analysis and the rotation method is Varimax with Kaiser Normalization. Both methods help in interpreting the loadings easily.

Media literacy skills include seven skills which are accessing, retrieving, understanding, using/communicating, analyzing, evaluating, and creating skills. Table (2) shows the items loadings for each skill.

First, access skill included 3 items. Two items have high loadings that are shown in the rotated component matrix through two-factor solution and 72.6 % variance in the sample. Item AC1 got (0.922), AC2 had (0.814) and AC3 was removed.

Second, retrieve skill was interpreted through two-factor solution and the researcher selected 37.76 % variance to reduce the items by removing two items instead of selecting 65.9% of the variance and removing one item. The rotated component matrix showed high loadings for items RE1 (0.787), RE2 (0.777) and RE3 (0.729). Thus, item RE4 and RE5 were removed from the final scale for its low loadings.

Third, the rotation method interpreted the understand skill through three-factor solution. Items UN1 (0.838), UN2 (0.800), UN3 (0.824) and UN4 (0.782) got high loadings while UN5, UN6 and UN7 were removed depending on variance percentage of 55.1.

Fourth, the use/communicate skills measured through 3 items that showed high loadings in the factor analysis with variance percentage of 50.9. A one-factor solution indicates high loadings for items UC1 (0.850), UC2 (0.710), and UC3 (0.736) in the component matrix therefore UC4 was removed.

Fifth, analysis skill was reflected through eight items before the factor analysis and the researcher selected 37.16% variance therefore items AN5, AN6, AN7 and AN8 were removed. Rotated component matrix showed high loadings for items AN1 (0.707), AN2 (0.747), AN3 (0.737) and AN4 (0.718) through two-solution factor.

Sixth, the evaluate skills include eight items. Four items were kept and the other four items were removed. The rotated component matrix showed items EV1

(0.917), EV2 (0.724), EV3 (0.846) and EV4 (0.891) with high loadings with variance 49.76 % through two-factor solution.

Seventh, the create skills include six items. The first factor accounts for 45.41 % of variance and the rotated component matrix showed high loading for items CR1 (0.879), CR2 (0.818) and CR3 (0.836). The remaining three items were ignored in the final scale.

<u>SNMLS internal reliability</u>

The 23 items of the news media literacy skills scale showed internal consistency. The results of Cronbach's alpha using SPSS showed a reliability of 0.751 which is an acceptable reliability for a scale in a social science research (see more details in Appendix F).

Table 6: Factor analysis for the items of Scale of News Media Literacy Skills (SNMLS)

Core concepts	SNMLS items	Loadings
1) Access Skills	**AC1--** I read online newspapers using tablets	**0.922**
	AC2-- I read online newspapers using computers	**0.814**
2) Retrieve Skills	**RE1--** I search news information through the online newspapers search engine.	**0.787**
	RE2-- I find news sources that reflect my own political values on the online newspapers.	**0.777**
	RE3-- I store digital news information retrieved from the online newspapers.	**0.729**
3) Understand Skills	**UN1--** The owner of an online newspaper influences the content that is produced.	**0.838**
	UN2-- Two people might see the same news story and get different information from it.	**0.800**
	UN3-- A journalist's first obligation is to the truth by presenting and verifying facts.	**0.824**
	UN4-- Most people tend to think that news has a greater effect on others than themselves.	**0.782**
4) Use/ Communicate Skills	**UC1--** I make a bookmark of news web pages.	**0.850**
	UC2-- I send and share news links or copied messages through email or social media websites.	**0.710**
	UC3-- I follow news on different online newspapers.	**0.736**
5) Analyze Skills	**AN1--** News is designed to attract an audience's attention.	**0.707**
	AN2-- A story about conflict is more likely to be featured prominently.	**0.747**
	AN3-- I pay more attention to news that fits with my beliefs than news that doesn't.	**0.737**
	AN4-- I criticize the quality of news information.	**0.718**
6) Evaluate Skills	**EV1--** Most news stories give representation to all sides of an issue.*	**0.917**
	EV2-- I effectively determine whether or not the news information is correct and reliable.	**0.724**
	EV3-- I check news information received from TV, Radio or printed Newspaper through online newspapers for verifying it.	**0.846**
	EV4-- If I decide to change my selected news sources, I can differentiate which sources provide me with credible news information.	**0.891**
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.	**0.879**
	CR2-- I mention the source of any news information that I share through the Internet	**0.818**
	CR3-- I can produce a news story for an online newspaper.	**0.836**

Items removed from the scale	AC3-- *I read online newspapers using mobile phones.* **
	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.* **
	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.* **
	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.* **
	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.* **
	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.* **
	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.* **

* Reversed on the scale

** *Items removed after factor analysis*

Regarding the news information processing types, the scale of systematic news processing was composed of four items. The factor analysis results revealed variance of 53.497 % and one-factor solution. The items SNP1 (0.809), SNP2 (0.675) and SNP3 (0.918) got high loadings while item SNP4 was removed. Also, the scale of heuristic news processing composed of four items showed the variance percentage to be 48.947, which interpreted high loadings for items HNP1 (0.751), HNP2 (0.845) and HNP3 (0.659) therefore HNP4 item was removed.

Table 7: Factor analysis results for the items of Heuristic- Systematic Scale

Core concepts	Scale's items developed by Schemer, Matthes & Wirth (2008) and modified by the researcher	Loadings
1) The systematic news processing	**SNP1--** The more viewpoints I get, the better.	**0.809**
	SNP2-- It is quite important for me to know as much as possible about political issues.	**0.675**
	SNP3-- I am likely to focus on political issues in the news very attentively.	**0.918**
2) The heuristic news processing	**HNP1--** I rarely spend much time thinking about the news information with respect to political issues.	**0.751**
	HNP2-- I often skim through news stories on political issues.	**0.845**
	HNP3-- I am not interested in specific background information on political issues.	**0.659**
Total Scale <u>after</u> factor analysis	**Composite 6 items**	
Items removed from the scale	**SNP4--** *It is important for me to know all arguments of a political discussion in detail.*** * **HNP4--** *I tune in to the news on political issues very irregularly.***	

*** Items removed after factor analysis*

Media gratification sought is represented through two factors, which are surveillance, and anticipated interaction. Firstly, the surveillance factor was explained through two-factor solution and 74.78% variance in the sample of the pre-test survey. The loadings were explained through the rotation method, which showed high loadings for items S1 (0.926), and S2 (0.816), and demonstrated low loading for item S3. Therefore, item S3 was removed from the final scale. Secondly, the anticipated interaction factor was interpreted through one-factor solution and 47.34% variance in the initial sample. The component matrix showed high loadings for items AI1 (0.749) and AI2 (0.825) and demonstrated low loading for item AI3. As a result, item AI3 was removed from the final scale. Moreover, the elaborative factor included three items with high loadings that are shown in the component matrix through one-factor solution and 58.9% variance in the sample. Item EP1 got (0.732), EP2 had (0.807), and EP3 is (0.761).

**Table 8: Factor analysis results for the Cognitive
Mediation Model Measures**

Core Concepts	Scale items	Loadings
A.Media Gratifications Sought **1.Surveillance**	**S1**-- The news media enable me to understand what is going on in politics.	**0.926**
	S2-- The news media allow me to keep up with political happenings.	**0.816**
A.Media Gratifications Sought **2.Anticipated Interaction**	**AI1**-- The news media prepare me for future political discussions.	**0.749**
	AI2-- I enjoy the excitement of an election race.	**0.825**
C. Elaborative Processing	**EP1**-- Often, when I learned about something in the news, I will recall it later and think about it.	**0.732**
	EP2-- I often interpret news stories in a way that helps me make sense of them.	**0.807**
	EP3-- I rarely spend time thinking about the news stories that I read or heard earlier.*	**0.761**
Total Scale <u>after</u> factor analysis	**Composite 8 items**	
Items removed from the scale	**S3**-- *The news media help me form my opinion on political leaders.*** **AI3**-- *The news media help me develop ammunition for political arguments that I will use with others.***	

* Reversed on the scale

** *Items removed after factor analysis*

Chapter 4: Data Analysis

The survey total responses collected through the link created by the researcher on the website Surveymonkey.com were 212. The statistics of the valid and missed cases for each variable are shown in (Appendix L). Students who are currently enrolled in graduate programs at American University in Cairo represent were 34.9 % of the sample while students who are now studying in undergraduate programs represented 65.1 % of the sample as shown in Figure 9.

Figure (9): Percentages of student according to the Current program
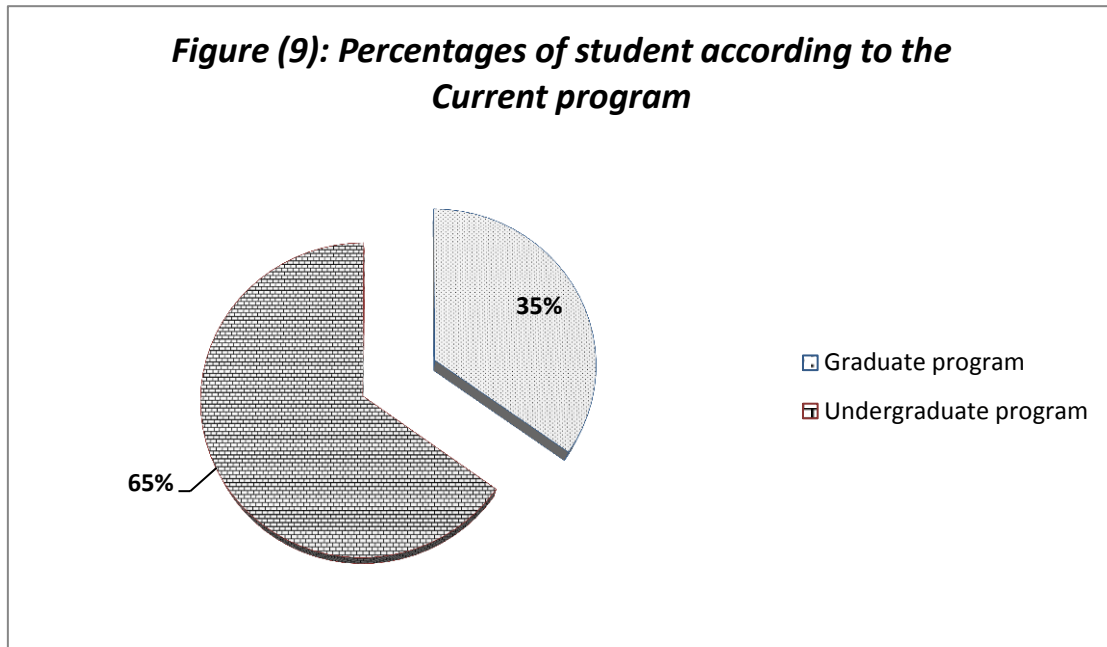
In order to test the hypotheses and answer the research questions, the researcher decided that the educational background is a controlling variable. Therefore, the sample is divided into three groups as shown in Figure 10. The first group is the students in the media field with 28.8%, the second group is students in the field of political science with 11.3%, and all other fields are in one group called 'Other' with 59.9%. Appendix G presents detailed results about other fields that are included under that category.

Figure (10): Percentages of student according to the Percentages of student according to the Major
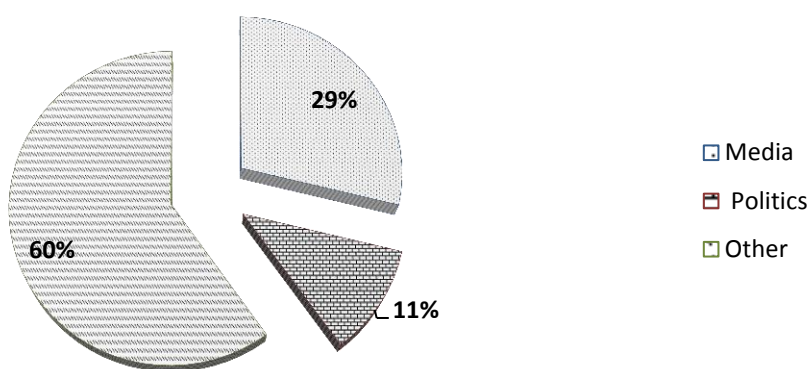
The frequency of using the Internet through PC, tabs and/or mobile phones per day showed a high percentage of students who use it more than 3 and less than 7 hours (48.1%). More than 7 hours comes in the second rank with 42.9%, and lastly less than 3 hours shows 9% as demonstarted in Table 9.

Table 9: Frequencies of Using the Internet through computers, tabs and/or mobile phones per day		
Using the Internet through computers, tabs and/or mobile phones per day	Frequency	Percent
Valid Less than 3 hours	19	9.0
More than 3 and Less than 7 hours	102	48.1
More than 7 hours	91	42.9
Total	212	100.0

Figure (11): Percentages of student according to the Internet usage per day

- Less than 3 hours
- More than 3 and Less than 7 hours
- More than 7 hours

9%

43%

48%
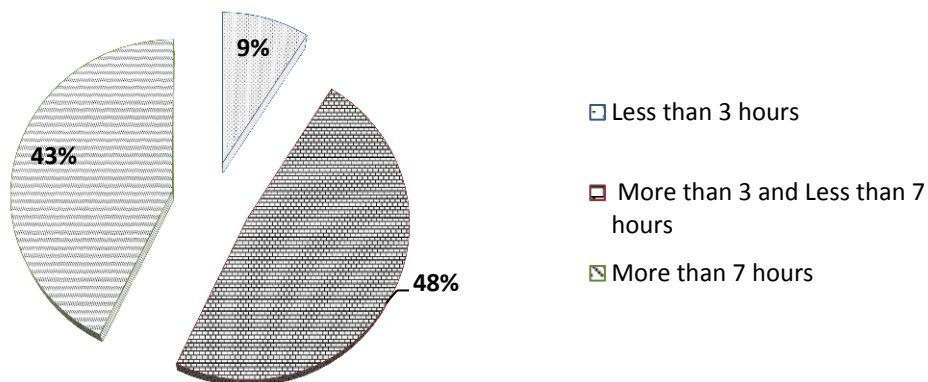
Table 10 shows the frequencies of following the online newspapers per day among AUC students. Less than 3 hours got the highest percentage which is of 61.3% Zero hours came in the second rank with percentage 31.6, thirdly More than 3 and Less than 7 hours got low percentage of 6.6 and lastly More than 7 hours received 0.5 percent.

Table 10: Frequencies of following online newspapers per day		
Following online newspapers per day	Frequency	Percent
Valid Less than 3 hours	130	61.3
More than 3 and Less than 7 hours	14	6.6
More than 7 hours	1	0.5
Zero hours	67	31.6
Total	212	100.0

**Figure (12): Percentages of student according to
Following online newspapers per day**

- Less than 3 hours
- More than 3 and Less than 7 hours
- More than 7 hours
- Zero hours

32%

More than 7 hours 0.5 %

7%

61%
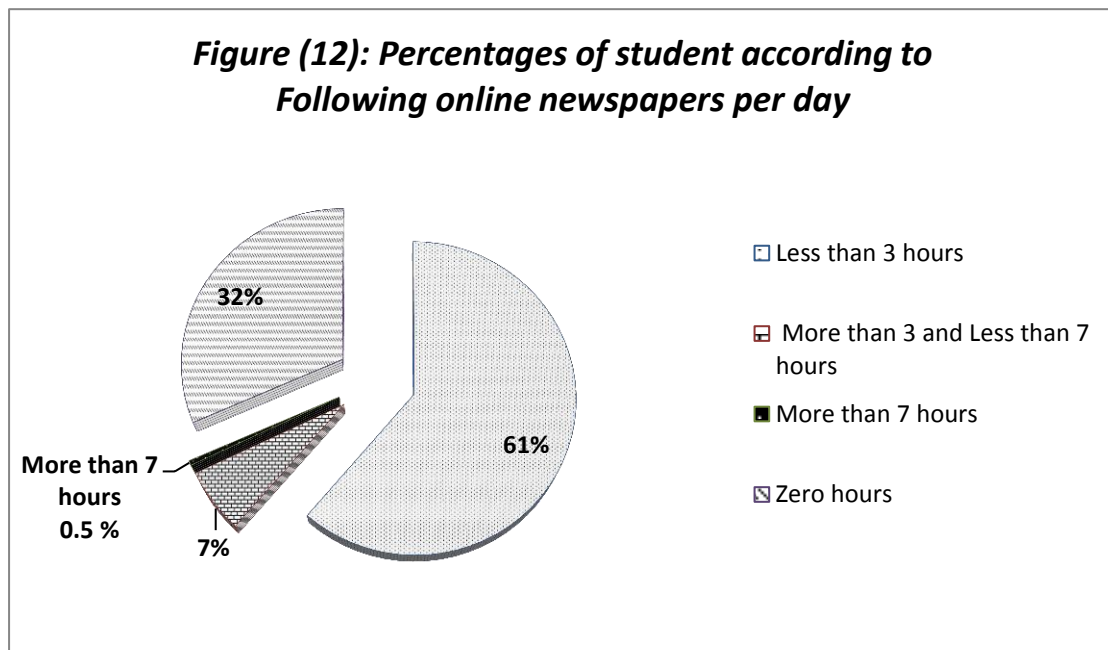
Difference between students according to their current program

The researcher used the T-test in order to know the difference between the graduate students and undergraduate students regarding the main 3 variable of the study which are levels of heuristic and systematic news processing, and levels of news media literacy skills. The following table showed no statistical significance between the two groups concerning levels of heuristic (P value=0.281) and systematic news processing (P value=0.788), and levels of news media literacy skills (P value=0.383). But, there is statistical difference at level of 10% significance between the two groups of students in their levels of political knowledge (P value= 0.081). This means the educational stage has no effect on both groups concerning the heuristic systematic news processing and the news media literacy skills levels, but there is an effect on the political knowledge levels. In other words, the difference in the educational stage of the students didn't make difference in their levels of processing news systematically or heuristically, and their levels of news media literacy skills but there is an influence between the groups in their levels of political knowledge due to the educational stage. Appendix (G) shows more tables and details.

Table 11: Comparisons between the 2 groups of students according to their current programs and concerning the main study variables

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
SNP	Equal variances assumed	.073	.788	.878	164	.381	.12815	.14591	-.15995-	.41626
	Equal variances not assumed			.874	134.605	.383	.12815	.14657	-.16172-	.41803
HNP	Equal variances assumed	1.169	.281	-.731-	148	.466	-.10471-	.14330	-.38788-	.17847
	Equal variances not assumed			-.750-	134.226	.455	-.10471-	.13968	-.38096-	.17155
SNMLS	Equal variances assumed	.765	.383	1.257	168	.211	.09107	.07245	-.05197-	.23410
	Equal variances not assumed			1.276	142.204	.204	.09107	.07139	-.05006-	.23219
PK	Equal variances assumed	3.096	.081	.938	134	.350	.03864	.04120	-.04286-	.12013
	Equal variances not assumed			.977	125.015	.330	.03864	.03955	-.03963-	.11690

Difference between students according to their major

The researcher used the One-Way ANOVA in order to know the difference between the 3 groups of students who are studying media or politics or other majors. The test aimed to demonstrate the statistical difference concerning the main 3 variable of the study which are levels of heuristic and systematic news processing, levels of political knowledge and levels of news media literacy skills. The following table showed 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 the educational field has no effect on the three groups concerning the heuristic news processing levels and political knowledge levels. In other words, 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. Appendix (G) shows more tables and details.

Table 12: Comparisons between the 3 groups of students according to their majors and concerning the main study variables

		Sum of Squares	df	Mean Square	F	Sig.
SNP	Between Groups	11.740	2	5.870	7.534	.001
	Within Groups	126.996	163	.779		
	Total	138.736	165			
HNP	Between Groups	1.757	2	.878	1.202	.304
	Within Groups	107.418	147	.731		
	Total	109.174	149			
SNMLS	Between Groups	3.934	2	1.967	10.329	.000
	Within Groups	31.804	167	.190		
	Total	35.738	169			

PK	Between Groups	.058	2	.029	.529	.591
	Within Groups	7.348	133	.055		
	Total	7.407	135			

In order to present the relation between "educational background and expertise", and other variables, the researcher presents the statistical results of the educational background and its relation to the other variables of this study before answering the research questions. To consider the relation as significant, the significance level should be less than 0.05 at a level of 5% or less than 0.1 at a level of 10%. Moreover, the three levels (low, medium and high), of each variable were measured by considering scores 1 and 2 as low, 3 as medium, and 4 and 5 as high. The exception is for the political knowledge variable, which has two levels of only high and low. The low level is determined by considering the student who answered 5 or less correct answers, while a person with high level of political knowledge is the student who answered more than 5 correct answers.

News Processing and News Media Literacy Skills

The statistical analysis revealed that the relation between the two modes of news processing (HNP and SNP), 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 means that the educational background affects this relation within a group of students who are in different majors, while students within one group, whether in media or political fields, have levels of SNMLS and SNP/HNP that are not influenced by their educational background.

Media Field

The relation between the heuristic news processing (HNP) and level of news media literacy skills (SNMLS) is not significant. The Chi square value is 0.016 and level of significance is 0.992. Therefore, the level of News media literacy skills with

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HNP is insignificant within the group of media as shown in Table 13. Also, the relation between systematic news processing (SNP) & SNMLS is insignificant because Chi square value is 1.257 and level of significance is 0.535 as shown in Table 14. Conclusively, there is no relation between the level of SNMLS and type of news processing levels within one group "media field". This means that the media field has no influence on the relation between the levels of SNMLS and levels of HNP/ SNP due to the similar educational background that the students have.

Table 13:The relation between levels of Heuristic News Processing and news media literacy skills levels (Media Field) [a]

			SNMLS		
			Low	High	Total
HNP	Low	Count	3	14	17
		% within HNP	17.6%	82.4%	100.0%
		% within SNMLS	42.9%	45.2%	44.7%
	Medium	Count	1	4	5
		% within HNP	20.0%	80.0%	100.0%
		% within SNMLS	14.3%	12.9%	13.2%
	High	Count	3	13	16
		% within HNP	18.8%	81.3%	100.0%
		% within SNMLS	42.9%	41.9%	42.1%
Total		Count	7	31	38
		% within HNP	18.4%	81.6%	100.0%
		% within SNMLS	100.0%	100.0%	100.0%

a. Which field is your major related to? = Media

N=38 , X^2= 0.016, level of significance = 0.992

Source: a survey done by the researcher on surveymonkey.com

Figure (13): Percentages of the relation between levels of Heuristic News Processing and news media literacy skills levels (Media Field)
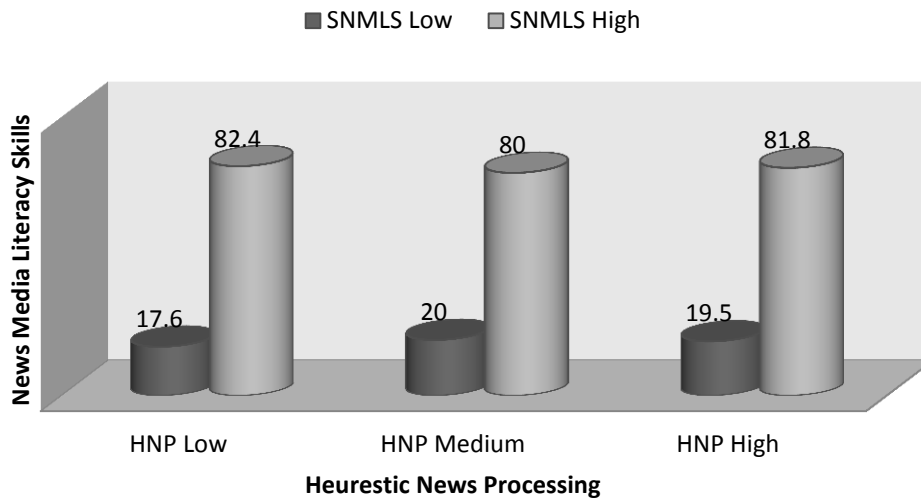
Table 14: The relation between levels of Systematic News Processing and news media literacy skills levels (Media Field) [a]

			SNMLS		
			Low	High	Total
SNP	Low	Count	2	4	6
		% within SNP	33.3%	66.7%	100.0%
		% within SNMLS	25.0%	12.1%	14.6%
	Medium	Count	0	2	2
		% within SNP	0.0%	100.0%	100.0%
		% within SNMLS	0.0%	6.1%	4.9%
	High	Count	6	27	33
		% within SNP	18.2%	81.8%	100.0%
		% within SNMLS	75.0%	81.8%	80.5%
Total		Count	8	33	41
		% within SNP	19.5%	80.5%	100.0%
		% within SNMLS	100.0%	100.0%	100.0%

a. Which field is your major related to? = Media

N=41 , X^2= 1.257,   level of significance = 0.535

Source: a survey done by the researcher on surveymonkey.com

Figure (14): Percentages the relation between levels of Systematic News Processing and news media literacy skills levels (Media Field)

Political science Field

The relation between the heuristic news processing (HNP) and level of news media literacy skills (SNMLS) is insignificant within the group of students who are studying politics as shown in Table 15. The Chi square value is 0.407 and level of significance is 0.816. Also, the relation between systematic news processing (SNP) & SNMLS is insignificant because Chi square value is 0.053 and level of significance is 0.819 as shown in Table 16. Therefore, there is no relation between level of SNMLS and type of news processing levels within this group. This means that political science field doesn't affect the relation between the levels of SNMLS and levels of HNP/ SNP due to the similar expertise that students have.

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Table 15: Percentages of the relation between Heuristic News Processing and News Media Literacy Skills (Political science Field) [a]

			SNMLS		
			Low	High	Total
HNP	Low	Count	1	12	13
		% within HNP	7.7%	92.3%	100.0%
		% within SNMLS	100.0%	70.6%	72.2%
	Medium	Count	0	4	4
		% within HNP	0.0%	100.0%	100.0%
		% within SNMLS	0.0%	23.5%	22.2%
	High	Count	0	1	1
		% within HNP	0.0%	100.0%	100.0%
		% within SNMLS	0.0%	5.9%	5.6%
Total		Count	1	17	18
		% within HNP	5.6%	94.4%	100.0%
		% within SNMLS	100.0%	100.0%	100.0%

a. Which field is your major related to? = Politics

N=18 , X^2= 0.407,   level of significance = 0.816

Source: a survey done by the researcher on surveymonkey.com

Figure (15): Percentages of the relation between Heuristic News Processing and News Media Literacy Skills (Political science Field)
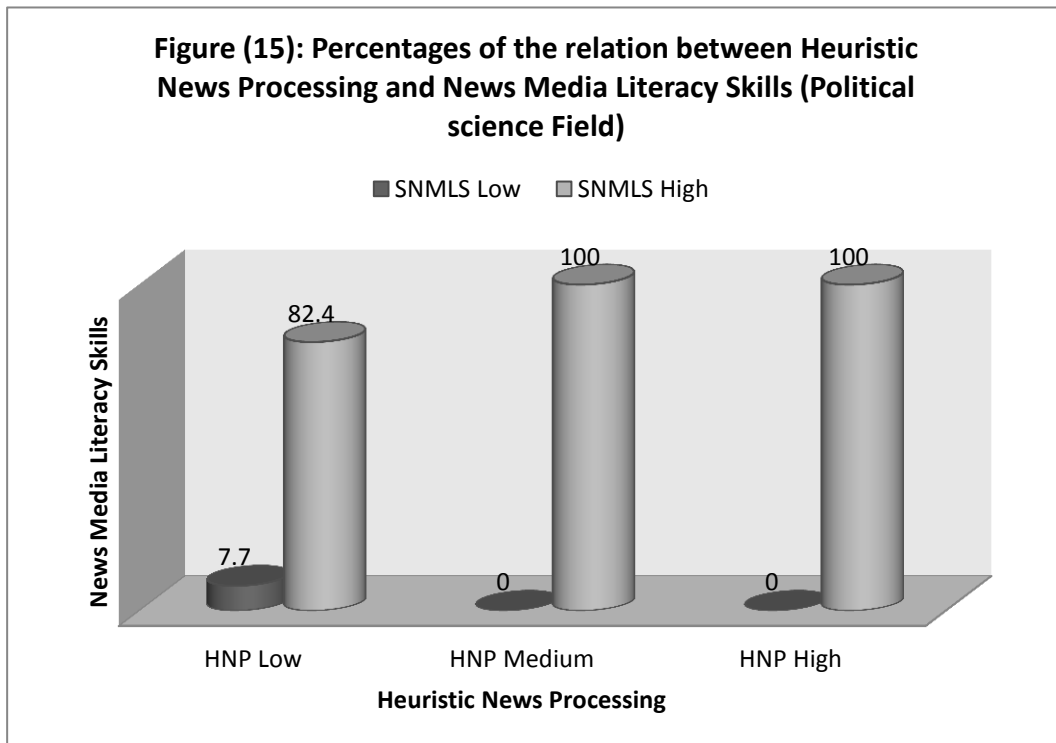
Table 16: Percentages of the relation between Systematic News Processing and News Media Literacy Skills (Political science Field) [a]

			SNMLS		
			Low	high	Total
SNP	Low	Count	**0**	**1**	**1**
		% within SNP	**0.0%**	**100.0%**	**100.0%**
		% within SNMLS	**0.0%**	**5.0%**	**4.8%**
	High	Count	**1**	**19**	**20**
		% within SNP	**5.0%**	**95.0%**	**100.0%**
		% within SNMLS	**100.0%**	**95.0%**	**95.2%**
Total		Count	**1**	**20**	**21**
		% within SNP	**4.8%**	**95.2%**	**100.0%**
		% within SNMLS	**100.0%**	**100.0%**	**100.0%**

a. Which field is your major related to? = Politics

N=21 , X^2= 0.053,   level of significance = 0.819

Source: a survey done by the researcher on surveymonkey.com

Figure (16): Percentages of the relation between Systematic News Processing and News Media Literacy Skills (Political science Field)

Other Fields

The relation between the heuristic news processing (HNP) and level of news media literacy skills (SNMLS) is significant within the group of students who are studying in different fields as shown in Table 17. The Chi square value is 11.663 and

level of significance is 0.020. Also, the relation between systematic news processing (SNP) & SNMLS is significant because Chi square value is 20.737 and level of significance is 0.000 as shown in Table 18. Therefore, there is a relation between levels of SNMLS and levels of news processing types within this group. This means that the different educational fields affect the relation between the levels of SNMLS and levels of HNP/ SNP.

In general, this indicates that the educational background reduces the differences between students of the same field regarding the variables of news information processing and news media literacy skills. The results of the third group emphasize this indication because the different educational backgrounds and expertise affect the relation between the two variables.

Table 17: Percentages of the relation between Heuristic News Processing and News Media Literacy Skills (Other Fields) [a]

			SNMLS			
			Low	Medium	High	Total
HNP	Low	Count	5	1	30	36
		% within HNP	13.9%	2.8%	83.3%	100.0%
		% within SNMLS	17.9%	25.0%	48.4%	38.3%
	Medium	Count	3	1	11	15
		% within HNP	20.0%	6.7%	73.3%	100.0%
		% within SNMLS	10.7%	25.0%	17.7%	16.0%
	High	Count	20	2	21	43
		% within HNP	46.5%	4.7%	48.8%	100.0%
		% within SNMLS	71.4%	50.0%	33.9%	45.7%
Total		Count	28	4	62	94
		% within HNP	29.8%	4.3%	66.0%	100.0%
		% within SNMLS	100.0%	100.0%	100.0%	100.0%

a. Which field is your major related to? = Other (please specify)

N=94 , X^2= 11.663,   level of significance = 0.020

Source: a survey done by the researcher on surveymonkey.com

Figure (17): Percentages of the relation between Heuristic News Processing and News Media Literacy Skills (Other Fields)

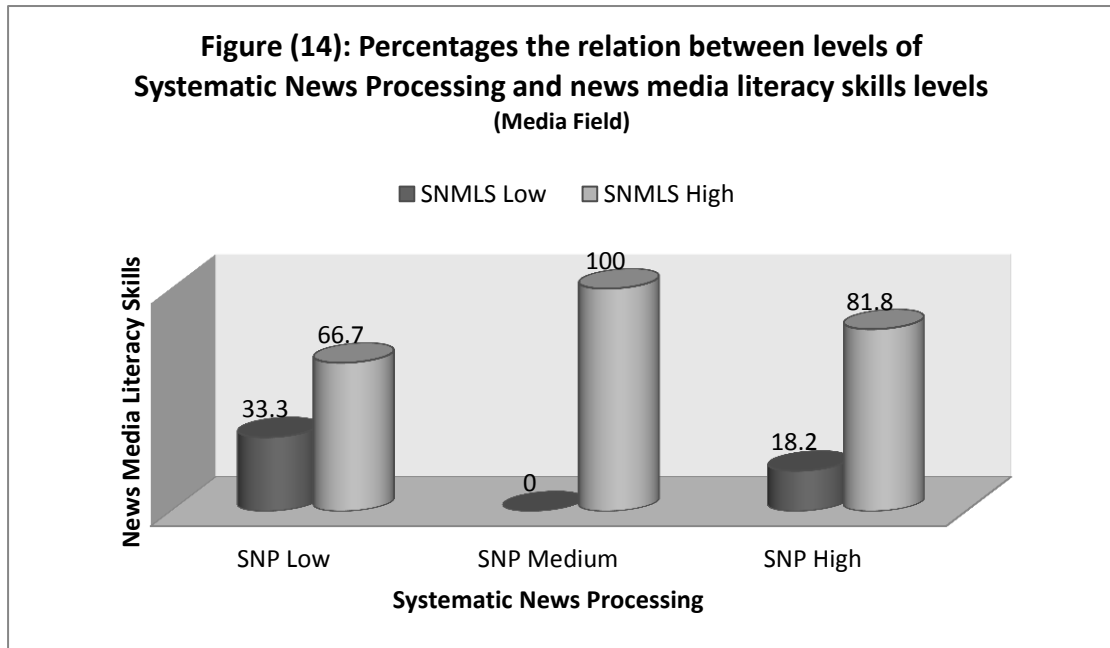**Table 18:** Percentages of the relation between Systematic News Processing and News Media Literacy Skills (Other Fields) [a]

			SNMLS			
			Low	Medium	High	Total
SNP	Low	Count	12	0	15	27
		% within SNP	44.4%	0.0%	55.6%	100.0%
		% within SNMLS	37.5%	0.0%	22.1%	26.0%
	Medium	Count	7	2	2	11
		% within SNP	63.6%	18.2%	18.2%	100.0%
		% within SNMLS	21.9%	50.0%	2.9%	10.6%
	High	Count	13	2	51	66
		% within SNP	19.7%	3.0%	77.3%	100.0%
		% within SNMLS	40.6%	50.0%	75.0%	63.5%
Total		Count	32	4	68	104
		% within SNP	30.8%	3.8%	65.4%	100.0%
		% within SNMLS	100.0%	100.0%	100.0%	100.0%

a. Which field is your major related to? = Other (please specify)

N=104 , X^2 = 20.737,   level of significance = 0.000
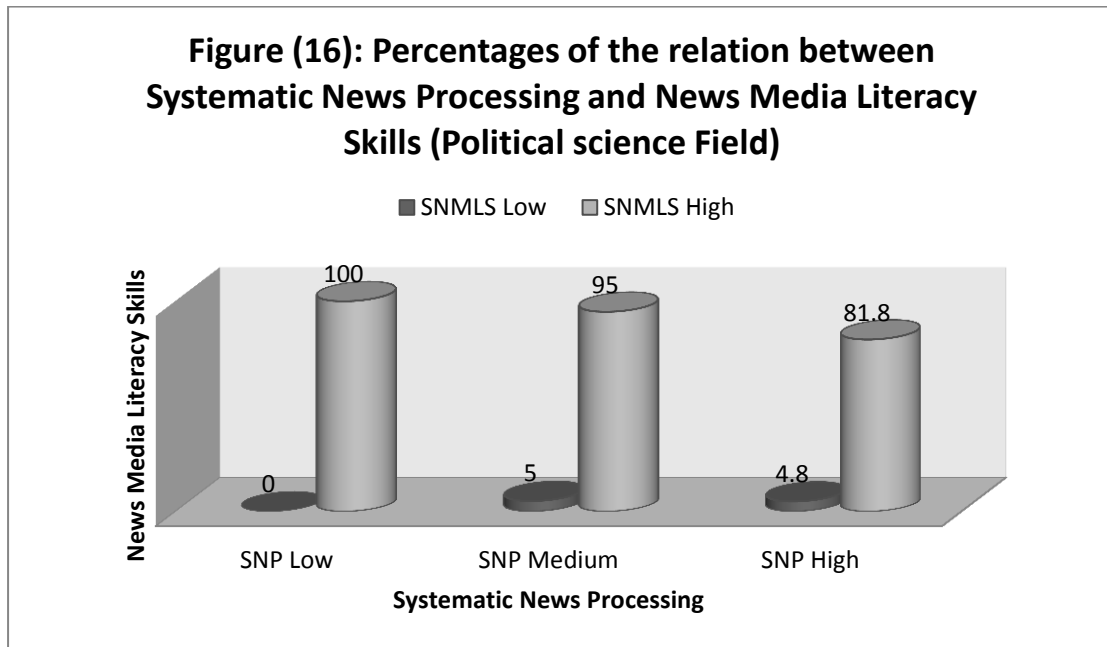
Source: a survey done by the researcher on surveymonkey.com

Figure (18): Percentages of the relation between Systematic News Processing and News Media Literacy Skills (Other Fields)

■ SNMLS Low ■ SNMLS High

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

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. Furthermore, the relation between the levels of the systematic news processing (SNP), and levels of news media literacy skills is positively related. The Chi square value is 26.675 and level of significance is 0.000 therefore; the relation is significant. Appendix (G) shows more tables and details.

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

The numbers and percentages that are shown in Table 19 explain that the largest group that has a **low level** of news media literacy skills, has **a high level** of processing the 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. This explanation confirms that the hypothesis is supported because there is a negative relation between the two variables.

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Table 19: Percentages of the relation between Heuristic News Processing and News Media Literacy Skills

			SNMLS			Total
			Low	Medium	High	
HNP	Low	Count	9	1	<u>56</u>	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	<u>23</u>	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%

N=150 , X^2= 12.404 , level of significance = 0.015

Source: a survey done by the researcher on surveymonkey.com
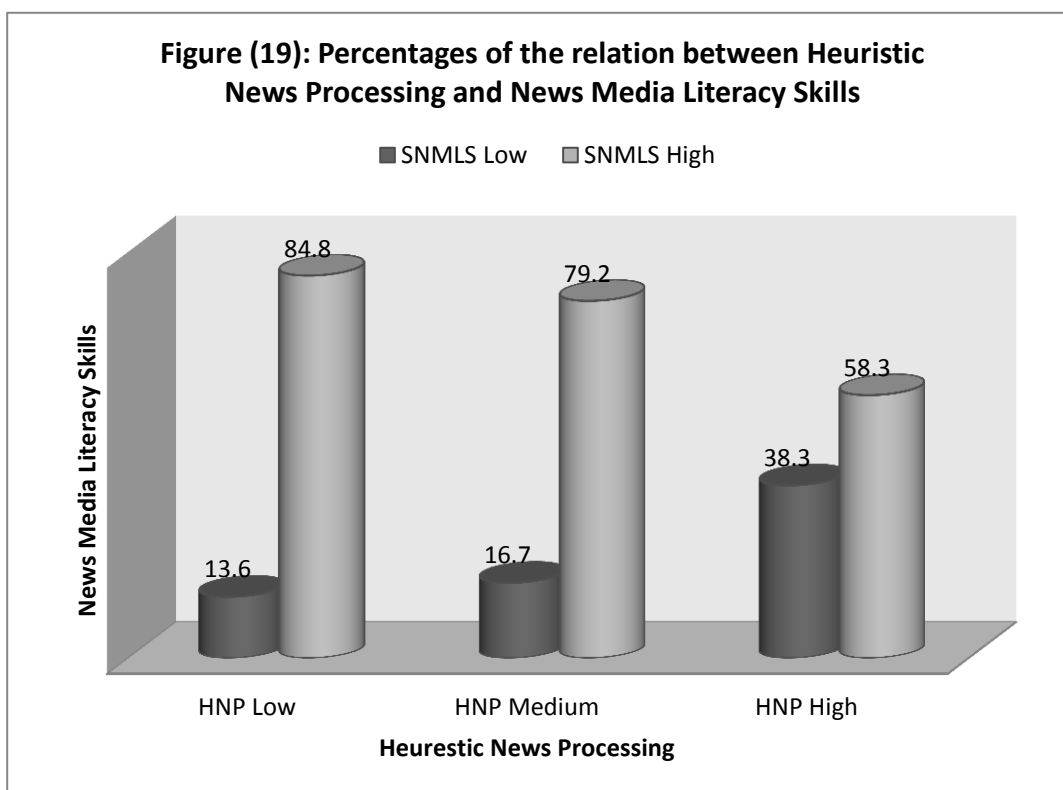
Figure (19): Percentages of the relation between Heuristic News Processing and News Media Literacy Skills

- SNMLS Low
- SNMLS High

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

Numbers and percentages that are shown in Table 20 explain that the largest group that has a **high level** of news media literacy skills **also** has a **high level** of processing the news systematically. This explanation proves that the hypothesis is supported because there is a positive relation between the two variables.

Table 20: Percentages of the relation between Systematic News Processing and News Media Literacy Skills

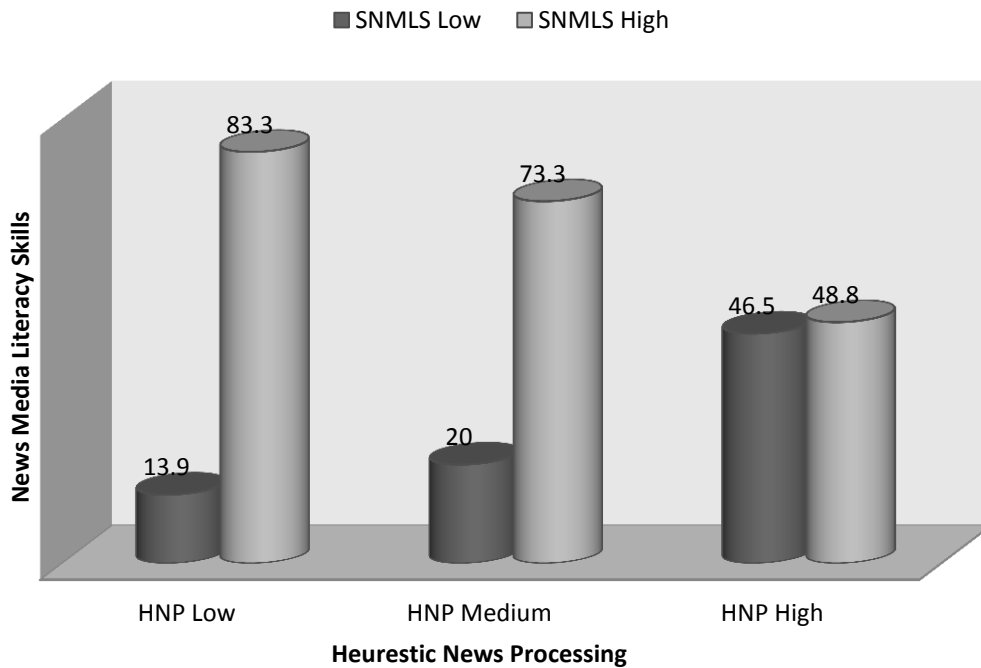|			SNMLS			Total
			Low	Medium	High	
SNP	Low	Count	14	0	20	34
		% within SNP	41.2%	0.0%	58.8%	100.0%
		% within SNMLS	34.1%	0.0%	16.5%	20.5%
	Medium	Count	7	2	4	13
		% within SNP	53.8%	15.4%	30.8%	100.0%
		% within SNMLS	17.1%	50.0%	3.3%	7.8%
	High	Count	20	2	<u>97</u>	119
		% within SNP	16.8%	1.7%	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%

N= 166 , X^2= 26.675 , level of significance = 0.000

source: a survey done by the researcher on surveymonkey.com

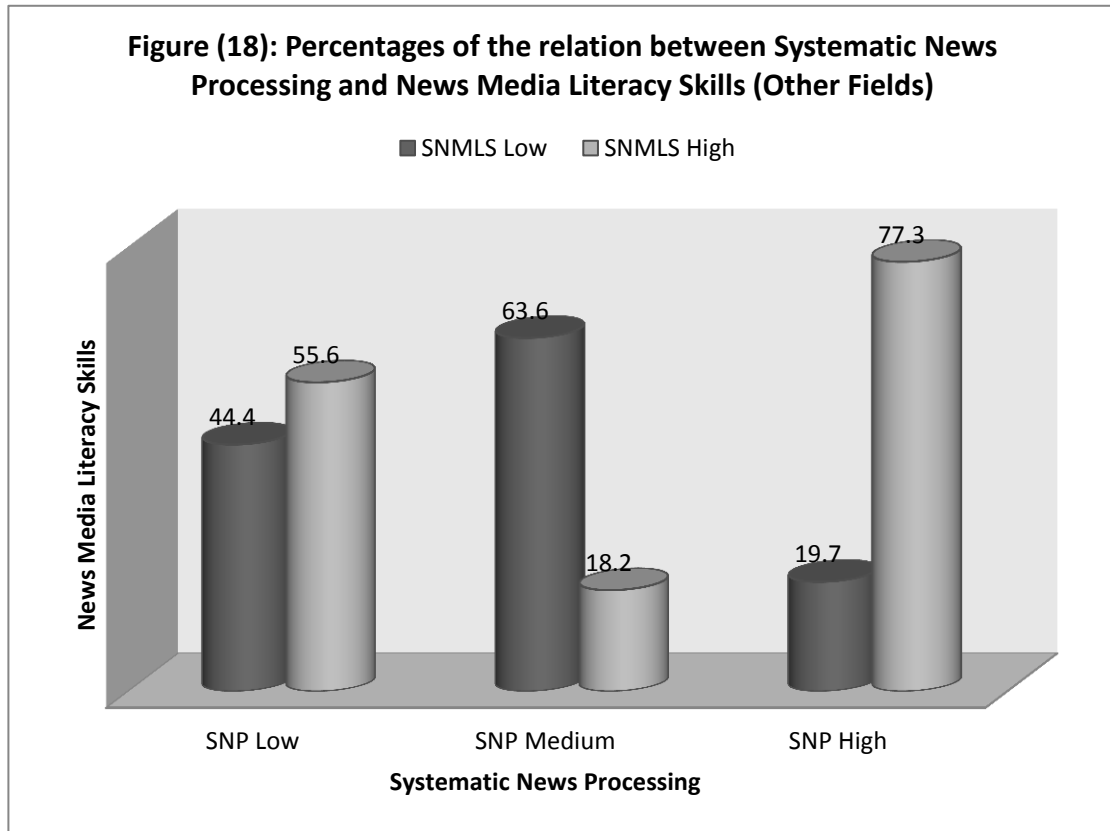**Figure (20): Percentages of the relation between Systematic News Processing and News Media Literacy Skills**
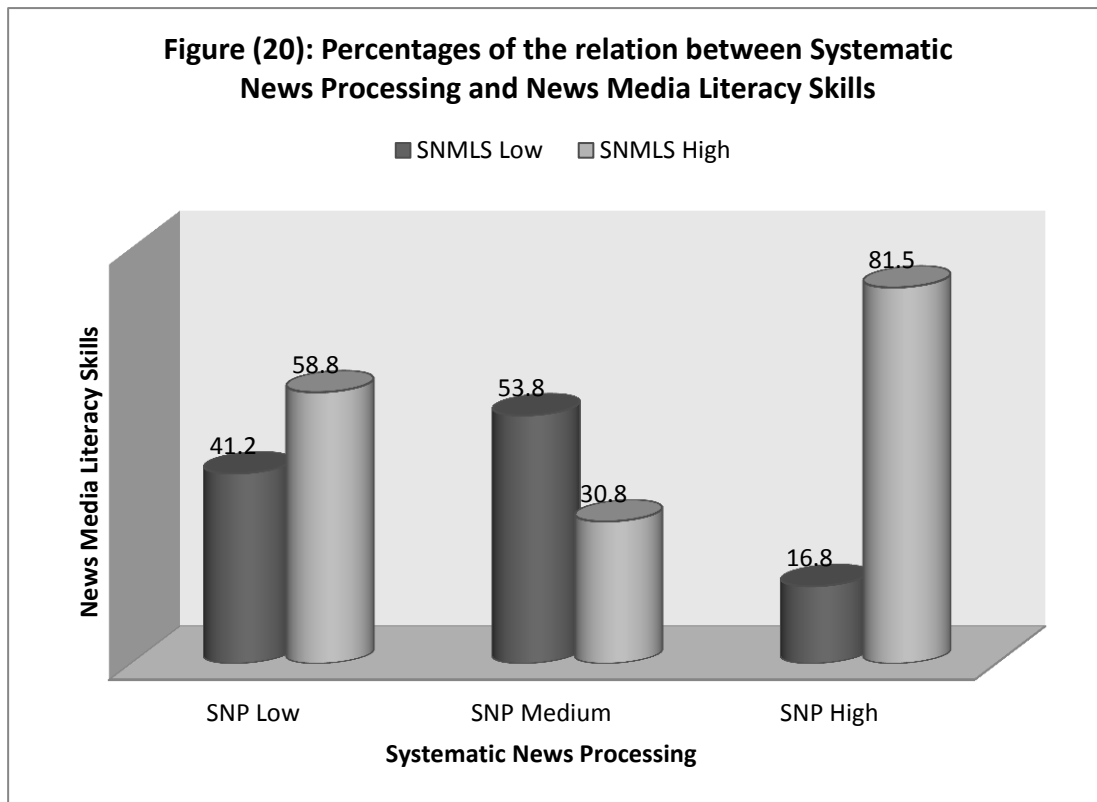
Controlling the educational field variable regarding RQ1:

When controlling for the educational field variable, 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-) as shown in Table 28. Therefore, hypothesis H1a is supported.

When controlling for the educational field variable, the relation between levels of news media literacy skills and levels of systematic news processing is significant and positively correlated (P value= 0.001, Partial r= 0.263) as shown in Table 28. Therefore, hypothesis H1b is supported.

Table 28: Percentages of the relation between NEWS MEDIA LITERACY SKILLS and NEWS PROCESSING			HNP	SNP
Control Variables			HNP	SNP
Educational Field	**SNMLS**	Correlation	-.264-	.263
		Significance (2-tailed)	.001	.001
		df	147	147

R.Q.2: What is the relation between the type of news processing and the level 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. 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. Appendix (G) shows more tables and details.

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

Numbers and percentages that are shown in Table 21 demonstrate 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. This explanation proves the hypothesis is supported because there is a negative relation between the two variables.

Table 21: Percentages of the relation between Heuristic News Processing and
POLITICAL KNOWLEDGE

			POLITICAL KNOWLEDGE		Total
			Low	High	
HNP	Low	Count	14	<u>47</u>	61
		% within HNP	23.0%	<u>77.0%</u>	100.0%
		% within POLITICAL KNOWLEDGE	26.9%	56.0%	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	<u>28</u>	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%

N= 136 , X^2= 11.668, level of significance = 0.003

source: a survey done by the researcher on surveymonkey.com
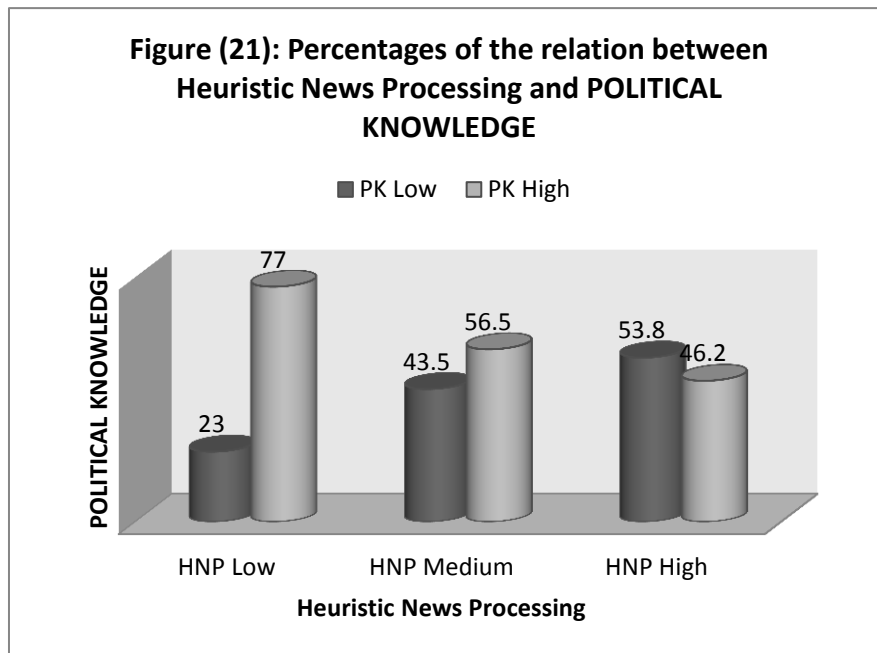
Figure (21): Percentages of the relation between Heuristic News Processing and POLITICAL KNOWLEDGE

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

Numbers and percentages that are in Table 22 showed the relation between the **high level** of political knowledge hand the **high level** of processing the news systematically. The results rejected hypothesis H2b because there is no statistical difference between the two variables.

Table 22: Percentages of the relation between Systematic 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	<u>64</u>	98
		% within SNP	34.7%	<u>65.3%</u>	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%

N= 136 , X^2= 3.326, level of significance = 0.190

source: a survey done by the researcher on

Figure (22): Percentages of the relation between Systematic News Processing and POLITICAL KNOWLEDGE
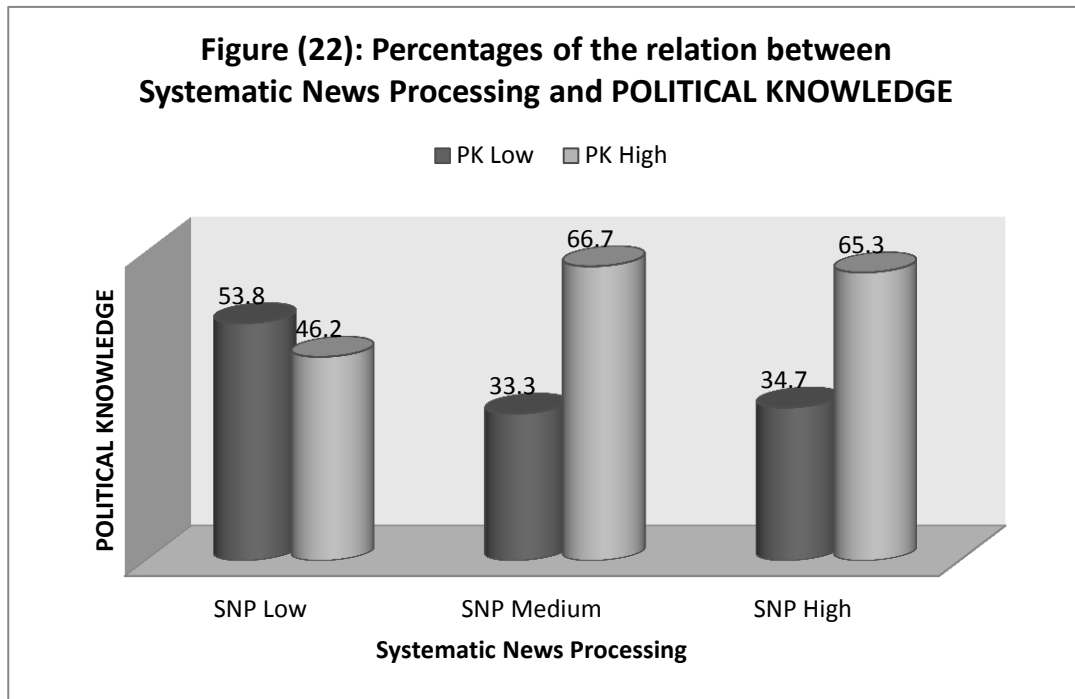
Controlling the educational field variable regarding RQ2:

When controlling for the educational field variable, 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-) as shown in Table 29. Therefore, hypothesis H2a is supported.

When controlling for the educational field variable, 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) as shown in Table 29. Therefore, hypothesis H2b is supported.

Table 29: Percentages of the relation between POLITICAL KNOWLEDGE and NEWS PROCESSING				
Control Variables			**SNP**	**HNP**
Educational Field	**POLITICAL KNOWLEDGE**	**Correlation**	.170	-.305-
		Significance (2-tailed)	.049	.000
		df	133	133

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

The results of the relation between the levels of news media literacy skills and levels of political knowledge showed that the Chi square value is 3.478 and level of significance is 0.176 then the relation between the two variables is insignificant. Appendix (G) shows more tables and details.

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

Numbers and percentages that are in Table 23 showed the relation between the high level of news media literacy skills and high level of political knowledge. The results rejected hypothesis H3a because there is no statistical difference between the two variables.

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

Numbers and percentages presented in Table 23 demonstrate that there is no relation between a low level of news media literacy skills and a low level of political knowledge. This is explained through the percentages of students who have low level of news media literacy skills and low level of political knowledge, representing 51.6%. This concludes 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. The relation between the two variables is insignificant and hypothesis H3b is rejected.

Table 23: Percentages of the relation between News Media Literacy Skills and
POLITICAL KNOWLEDGE

| | | | POLITICAL KNOWLEDGE | | |
			Low	High	Total
SNMLS	Low	Count	<u>16</u>	15	31
		% within SNMLS	<u>51.6%</u>	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	<u>67</u>	101
		% within SNMLS	33.7%	<u>66.3%</u>	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%

N= 136 , X^2= 3.478, level of significance = 0.176

source: a survey done by the researcher on surveymonkey.com

Figure (23): Percentages of the relation between News Media Literacy Skills and POLITICAL KNOWLEDGE
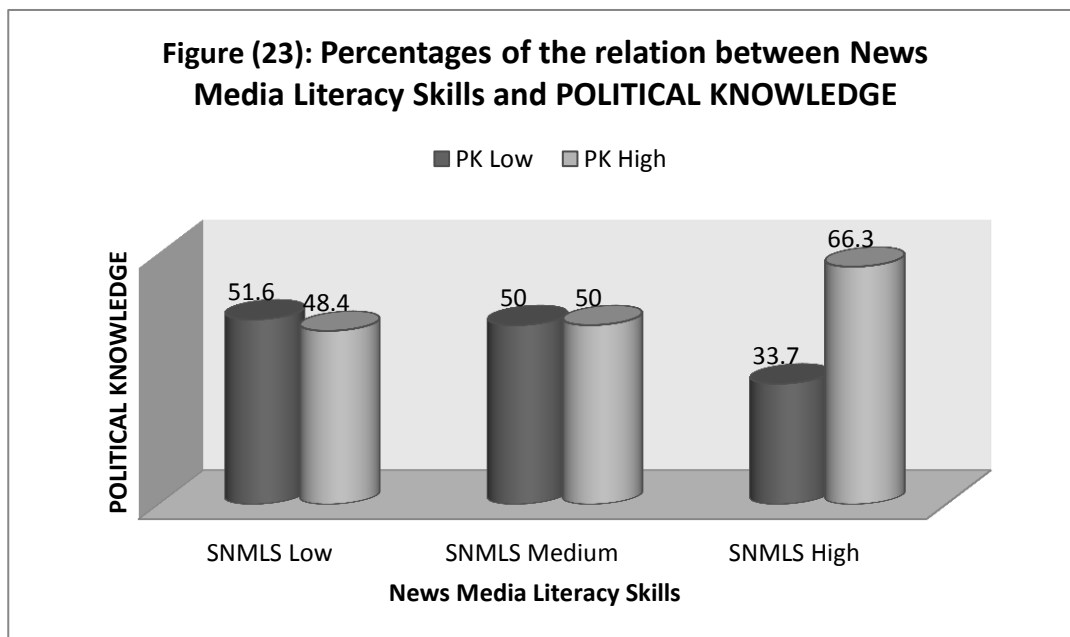
Controlling the educational field variable regarding RQ3:

When controlling for the educational field variable, 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) as shown in Table 30. Therefore, hypothesis H3a and H3b is supported. This significant positive correlation of hypothesis H3b differs from the result without controlling the educational field variable that indicates insignificant relation between levels of news media literacy skills and levels of political knowledge.

Table 30: Percentages of the relation between NEWS MEDIA LITERACY SKILLS and POLITICAL KNOWLEDGE			
Control Variables			**SNMLS**
Educational Field	**POLITICAL KNOWLEDGE**	Correlation	.185
		Significance (2-tailed)	.032
		df	133

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?

The media gratifications sought includes two factors which are, media surveillance and anticipated interaction. The statistical analysis revealed insignificant relation of both factors with the levels of political knowledge. This means that there is no relation between media gratifications sought and the levels of political knowledge. The first factor, which is surveillance, has a Chi square value of 0.360 and the level of significance is 0.835 making the relation between the levels of surveillance and levels of political knowledge insignificant as shown in Table 24. In addition, the relation between the levels of anticipated interaction and levels of political knowledge is insignificant because the Chi square value is 0.369 and level of significance is 0.832 as shown in Table 25. Appendix (G) shows more tables and details.

There is a positive relation between levels of news media reliance (NMR), and levels of political knowledge. The results showed that 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 as shown in Table 26. Furthermore, the relation between the levels of the elaborative processing and levels political knowledge is positively related. The results demonstrated 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 as shown in Table 27. Appendix (G) illustrates more tables and details.

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

This hypothesis is rejected regarding the relation between media levels of gratifications sought and the levels of political knowledge. The results showed insignificant relation between these two variables as shown in Table 24 and 25.

Table 24: **Percentages of the relation between SURVEILLANCE and POLITICAL KNOWLEDGE**

			POLITICAL KNOWLEDGE		
			Low	High	Total
s	Low	Count	7	9	16
		% within s	43.8%	56.3%	100.0%
		% within POLITICAL KNOWLEDGE	13.5%	10.7%	11.8%
	Medium	Count	5	10	15
		% within s	33.3%	66.7%	100.0%
		% within POLITICAL KNOWLEDGE	9.6%	11.9%	11.0%
	High	Count	40	65	105
		% within s	38.1%	61.9%	100.0%
		% within POLITICAL KNOWLEDGE	76.9%	77.4%	77.2%
Total		Count	52	84	136
		% within s	38.2%	61.8%	100.0%
		% within POLITICAL KNOWLEDGE	100.0%	100.0%	100.0%

N= 136 , X^2= 0.360, level of significance = 0.835

Source: a survey done by the researcher on surveymonkey.com

Figure (24): Percentages of the relation between SURVEILLANCE and POLITICAL KNOWLEDGE
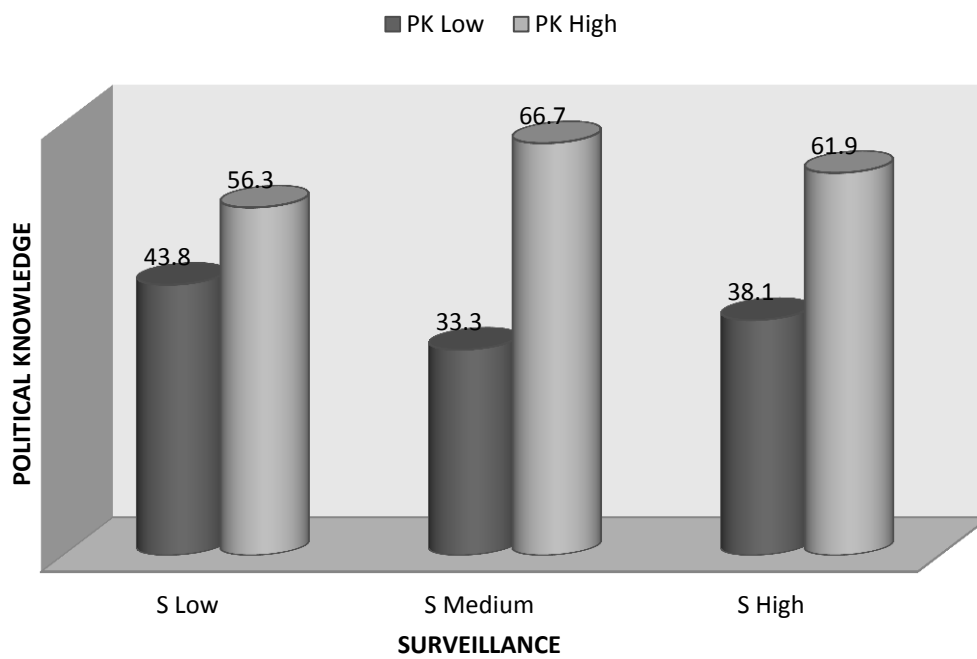
Figure (25): Percentages of the relation between ANTICIPATED INTERACTION and POLITICAL KNOWLEDGE

Table 25: Percentages of the relation between ANTICIPATED INTERACTION and POLITICAL KNOWLEDGE

			POLITICAL KNOWLEDGE		
			Low	High	Total
AI	Low	Count	21	34	55
		% within AI	38.2%	61.8%	100.0%
		% within POLITICAL KNOWLEDGE	40.4%	40.5%	40.4%
	Medium	Count	10	13	23
		% within AI	43.5%	56.5%	100.0%
		% within POLITICAL KNOWLEDGE	19.2%	15.5%	16.9%
	High	Count	21	37	58
		% within AI	36.2%	63.8%	100.0%
		% within POLITICAL KNOWLEDGE	40.4%	44.0%	42.6%
Total		Count	52	84	136
		% within AI	38.2%	61.8%	100.0%
		% within POLITICAL KNOWLEDGE	100.0%	100.0%	100.0%

N= 136 , X^2= 0.369, level of significance = 0.832

source: a survey done by the researcher on surveymonkey.com

In contrast, hypothesis H4 is supported by the relation between levels of news media reliance and the levels of political knowledge. Numbers and percentages that are shown in Table 26 demonstrate that there is a positive relation between the high level of news media reliance and the high level of political knowledge. This is explained through the percentages of students who have a high level of news media reliance and a high level of political knowledge, representing 75.6%.

Table 26: **Percentages of the relation between NEWS MEDIA RELIANCE * POLITICAL KNOWLEDGE**

| | | | POLITICAL KNOWLEDGE | | Total |
			Low	High	
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	<u>31</u>	41
		% within NMR	24.4%	<u>75.6%</u>	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%

N= 136 , X^2= 5.030, level of significance = 0.081

source: a survey done by the researcher on surveymonkey.com

Figure (26): Percentages of the relation between NEWS MEDIA RELIANCE and POLITICAL KNOWLEDGE
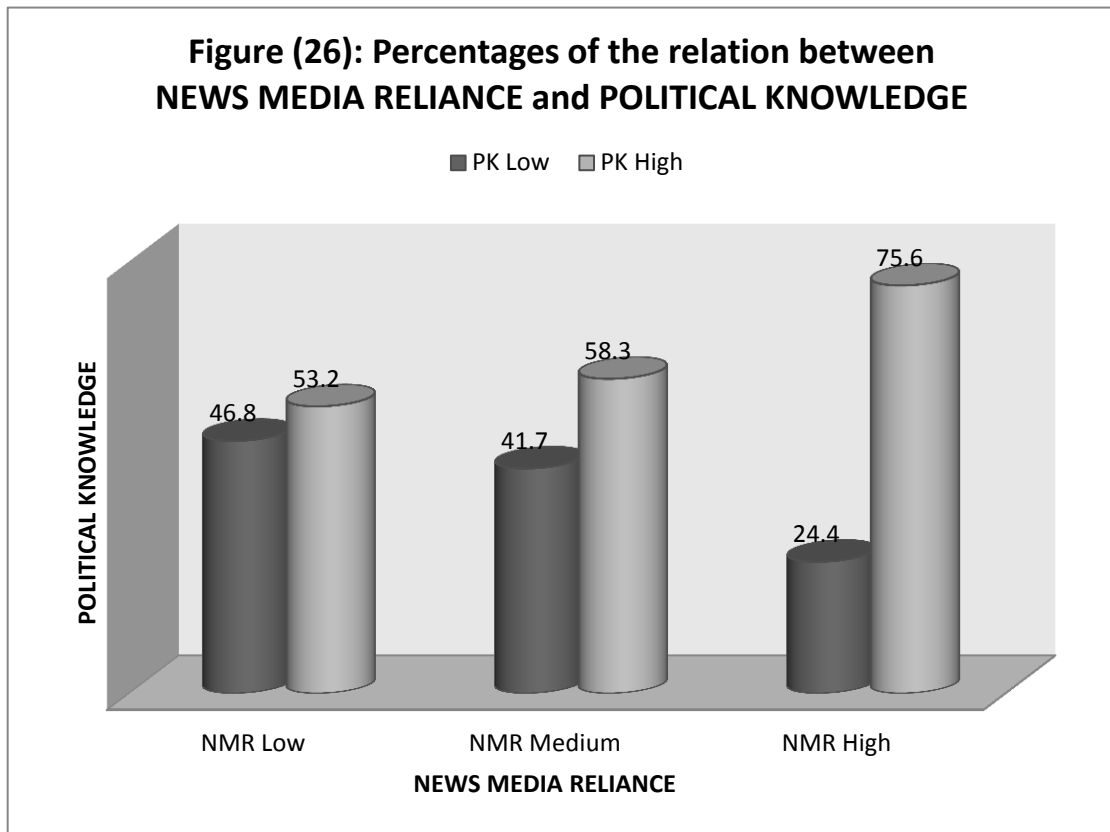
Furthermore, hypothesis H4 is supported in the relation between levels of elaborative processing and the levels of political knowledge. Numbers and percentages that are shown in Table 27 demonstrate that there is positive relation between the high level of elaborative processing and the high level of political knowledge. This is explained through the percentages of students who have a high level of elaborative processing and a high level of political knowledge, are representing 67.6%.

Table 27: The relation between ELAPORATIVE PROCESSING and POLITICAL KNOWLEDGE

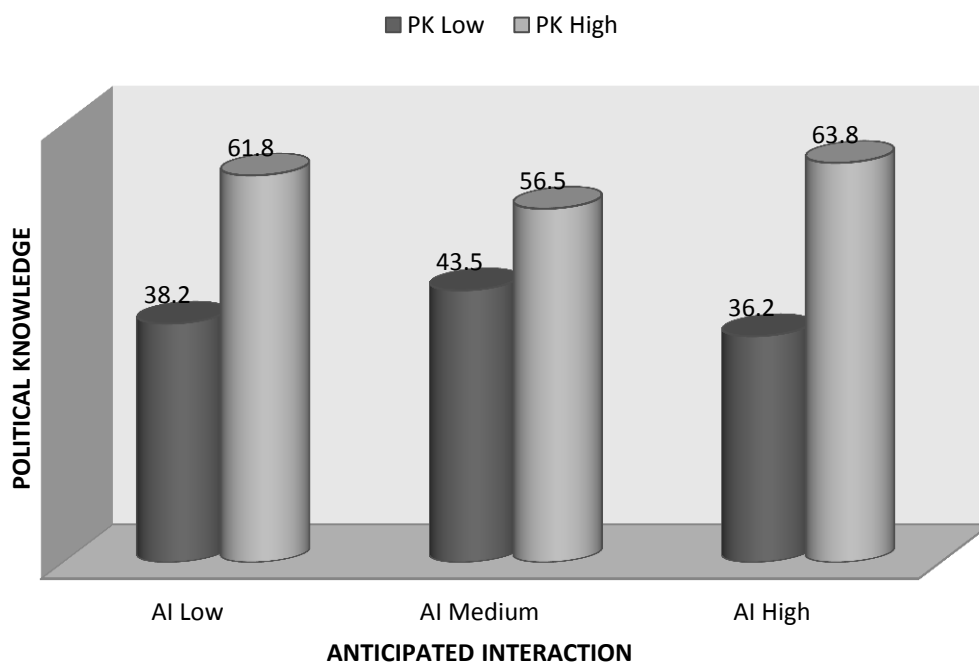|			POLITICAL KNOWLEDGE		
			Low	High	Total
EP	Low	Count	9	9	18
		% within EP	50.0%	50.0%	100.0%
		% within POLITICAL KNOWLEDGE	17.3%	10.7%	13.2%
	Medium	Count	9	4	13
		% within EP	69.2%	30.8%	100.0%
		% within POLITICAL KNOWLEDGE	17.3%	4.8%	9.6%
	High	Count	34	<u>71</u>	105
		% within EP	32.4%	<u>67.6%</u>	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%

N= 136 , X^2= 7.867, level of significance = 0.020

source: a survey done by the researcher on surveymonkey.com

Figure (27): The relation between Percentages of ELAPORATIVE PROCESSING and POLITICAL KNOWLEDGE
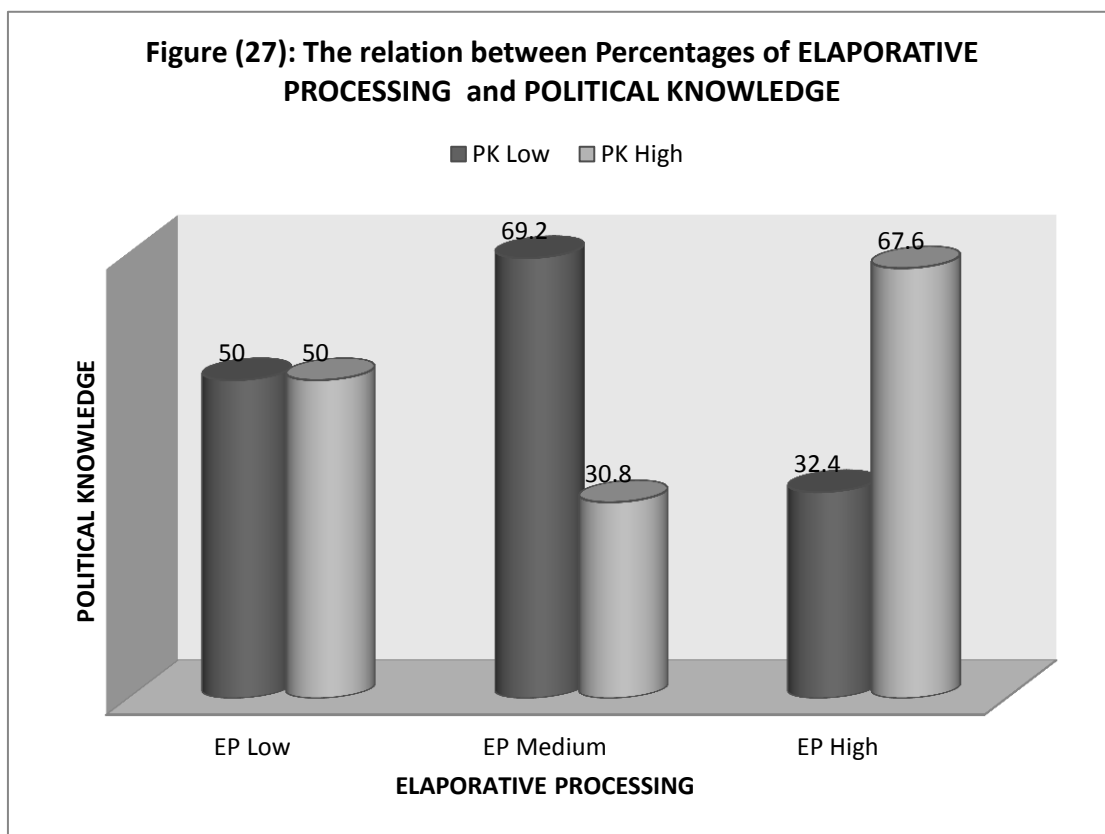
Controlling the educational field variable regarding RQ4:

When controlling for the educational field variable, the relation between levels of political knowledge and the two factors of media gratification sought which are surveillance (P value= 0.597, Partial r= 0.046) and anticipated interaction (P value= 0.758, Partial r= 0.027) is insignificant. Therefore, hypothesis H4 regarding these two variables is rejected.

When controlling for the educational field variable, 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) as shown in Table 31. Therefore, hypothesis H4 regarding these two variables is supported.

When controlling for the educational field variable, 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) as shown in Table 31. Therefore, hypothesis H4 regarding these two variables is supported.

Table 31: POLITICAL KNOWLEDGE * SURVEILLANCE, ANTICIPATED INTERACTION, ELABORATIVE PROCESSING, & NEWS MEDIA RELIANCE			
Control Variables			**POLITICAL KNOWLEDGE**
Educational Field	**SURVEILLANCE**	Correlation	.046
		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

Comments of students on the open ended question about media and politics

Most of the opinions criticized media and politics negatively, except for few comments that were expressed in a positive light. The researcher has compiled the comments in an organized manner, but as they are. One positive opinion said that media keeps them aware of political news, while another had a disapproving view by saying media is a weapon to control politics. The following, obtained comments reflect how the students see media and politics.

Egyptian media needs to attain integrity, transparency, and credibility to carry more weight in covering local news. Newspapers articles should also be thought through as in the international press which allows the reader to gain insight regarding many issues, notably political which adds insights even to experts in the field. Media manipulates people and whatever political party is in power, the media plays accordingly. Media also affects people's ideology, and it is rare to find well accomplished politicians or media personalities talking in politics.

Media in Egypt is guided by the ruling regime, biased, corrupt, and influenced by capital. Most media people are unprofessional in their presentation and coverage. No authentication, reliable reference given or proof is provided. Plagiarism is rampant. The political atmosphere is in a fluid state, even though the authoritarian grip still has a strong hold, however the situation is changing. Media is highly politicized and that is why it is losing its credibility bit by bit.

Politics as a philosophical study is interesting. Politics depicted by media in terms of current events is very much similar to celebrity gossip—extremely mind-numbing. Media is appalling in Egypt, and one has to be very careful when extracting information from it.

One student said that they actually try to avoid politics because they get very tense and when they read the occasional paper, which makes them feel they are living in a dangerous pit of doom. This generally doesn't place them in the most pleasant of moods, so such a person avoids the news almost entirely.

About eight opinions mentioned that both media and politics are "totally biased and that media uses framing for most of the political issues". They show a fair side of an argument and media, especially talk shows, lack diplomacy, civility,

decency and manners when it comes to discussions and disputes. Our media is one of the worst and most disgusting I have come across.

Egypt needs more balanced and mature media to display all political opinions. I believe that the state controls most media outlets if not directly then indirectly. Our main problem is education, once you change the educational system in general in 10 or 15 years everything is going to be much better.

Chapter 5: 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.

A survey was conducted to test the relation between news media literacy skills and the study's variables which are political knowledge, heuristic and systematic news processing, news media reliance, media gratification sought and elaborative processing. The online newspapers was selected as a medium in order to reduce the scale items that covered all media in the beginning. The researcher did a printed pretest, before the online pretest survey, that included all media and survey was too long. Then, the researcher decided to filter questions based on the medium according to the results of the printed pre test that showed high percentage to Televsion and Internet. The researcher main specialization is Journalism therefore, the online newspapers was selected as a medium.

The total responses of the survey collected by the researcher through Surveymonkey.com were 212. AUCian graduate students represent 34.9% of the sample and AUCian undergraduate students represent 65.1 % of the sample.

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) therefore, Hypothesis H1a is

supported. 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 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. For this reason, hypothesis H1b is supported 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.

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. 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.

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 therefore, Hypothesis H2a is supported. 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.

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.

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. Therefore, hypothesis H2a is supported.

Furthermore, the relation between levels of political knowledge and levels of systematic news processing is significant and positively correlated. Therefore, hypothesis H2b is supported.

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 show 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 political 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 media 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.

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. Therefore, hypothesis H3a and H3b is supported. 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 and anticipated interaction. 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. Furthermore, the relation between the levels of the elaborative processing and levels political knowledge is positively related. 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.

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. 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. 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. Therefore, hypothesis H4 regarding these two variables is supported.

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. Diversity of demographics will enrich the results and may give other important findings. Because of the well education and awareness that students have, more than 70 % of students have high news media literacy skills. Including students enrolled in other governmental students in the sample, may affect the results of news media literacy skills levels. Therefore, the sample differs from population of the Egyptian students in other universities.

- The results are not representative and can't be generalized because of the usage of a non-random sample. Due to the difficulties of using a random sample technique, the researcher asked the AUC portal to send an email to all students. Therefore, the sample size determined is based on the students who replied to the email and took the survey.

- The scale and the model developed in this study are limited to measure News media literacy skills for the university students whether graduates and undergraduates. The study didn't cover the school stages and scale's items used may need to be simplified in order to use it with school students.

- The researcher didn't get permission from the authors of the previous scales but there is no convention to ask in the media field. At the same time, the researcher cited the scale used in this study.

Recommendations

<u>Recommendation for the educators at Egyptian Ministry of education:</u>

- The study proved that the educational background influenced levels of news media literacy skills and levels of news processing, and consequently levels of political knowledge. Hence, we should pay attention to the importance of media literacy skills to gain political information, specifically when dealing with political news message. We need courses, on all educational levels, that help in attaining and developing these skills.

<u>Recommendations for future research:</u>

- The researcher recommends replicating the study and using the experiment as a method to investigate the relations between the variables; specifically, focusing on the second research question which examines the relation between the levels of news processing types and the levels of political knowledge. Although this relation has been proven, the researcher suggests investigating it intensely in future research with the application on certain political issue in the news. This may help in obtaining more information on the strength of this relation, while also clarifying it by focusing on certain issues. An experiment may be a suitable method to investigate this relation to test political knowledge levels before and after exposure to news stories focusing on an issue. The experiment method will measure the pre and post levels for each variable after exposing the students to the news.

- The researcher is recommending replicating the study by using the same method but on representative sample because the sample differs from population of the Egyptian students in other universities.

- It is recommended to develop more scales that measure media literacy skills in dealing with all media and cover school students in all stages.

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

- The researcher focused on the online newspapers in testing the news media literacy scale that developed in this study. Thus, it is recommended to examine this scale (SNMLS) by focusing on other media.

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Figure (1): UNESCO's Model- Media and Information Literacy (MIL) for the Future World

Components	Knowledge, Skills and Attitude
Access/Retrieval of Media and Information	
Access	- 'Button knowledge': the technical skills needed to use digital technologies - Information search skills - Curation intelligence - Transmedia navigation skills
Evaluation/Understanding of Media and Information	
Understanding	- Understanding media and informational content, format, institutions and audience - Computational thinking: ability to translate vast amounts of data into abstract concepts and understand data-based reasoning
Assessment and Evaluation	- Cognitive load management: ability to discriminate and filter information for importance - Sense-making: ability to determine the deeper meaning or significance of what is being expressed - Critical digital literacy: ability to critically assess the quality and validity of content that uses new media forms, and to leverage these media for persuasive communication - Photo-visual skills: ability to read instructions from graphical displays - Real-time processing skills: ability to process and evaluate large volume of information in real time
Organisation and Synthesis	- Knowledge management - Skill of abandonment
Use/Create/Communicate Media and Information	
Communication and Use	- Effective communication and information sharing - Story-telling skills - Specific medium use - Interactive tool use - Security practice - Application and goal achievement - Ethical use of media and information
Creation and Problem Solving	- Creativity - Design mindset: ability to represent and develop tasks and work processes for desired outcomes - Media and information production techniques - Collective knowledge construction and collaborative problem solving
Monitoring	- Media and information criticism and monitoring

Figure (2): Media Literacy Assessment Criteria Model

Criteria	Components	Indicators

USE SKILLS (technical)

- **Computer and Internet Skills**
  - Computer Skills
  - Internet Skills

- **Balanced and Active Use of Media**
  - Internet Use
  - Newspaper circulation
  - Going to the Cinema
  - Reading Books
  - Mobile phone subscriptions

- **Advanced Internet Use**
  - Buying by Internet
  - Reading News by Internet
  - Internet Banking

CRITICAL UNDERSTANDING COMPETENCES

- **Understanding Media Content and its Functioning**
  - Reading Text
  - Classifying written and audiovisual texts
  - Distinguishing media content
  - Elements to which the user attaches importance to rely on the information
  - Classifying Websites
  - Classifying media platforms and interaction systems

- **Knowledge about media and media regulation**
  - Media concentration
  - Knowledge and opinion regarding the media regulation subject
  - Do you know which institution sanctions possible violations of the law operated by TV stations?
  - Do you know the authorized institution to turn to when you noticed something insulting, injurious or offending on TV, radio or Internet? If the answer is yes, name it
  - Rules and rights applicable to media content
  - Perceptions of the watershed
  - Knowledge about regulation on internet
  - Author / Use right

- **User Behavior**
  - Exploring information and critical search of information
  - Checks made when visiting new websites
  - Judgements made about a website before entering personal details

COMMUNICATIVE ABILITIES

- **Social Relations**
  - User-created content in the EU
  - Creating a profile or sending a message in a social networking website.

- **Citizen Participation**
  - Internet for Cooperation
  - "User Centricity" on online public services
  - Citizen Participation activities ever done
  - E-government usage by individuals

- **Content Creation**
  - Media Production Skills
  - Experience of creativity
  - User Created Content

Figure (3): News Media Literacy Scale

News Media Literacy Scale (NML)

AA1: The owner of a media company influences the content that is produced.

AA1: News companies choose stories based on what will attract the biggest audience.

AA2: Individuals can find news sources that reflect their own political values.

MM2: People pay more attention to news that fits with their beliefs than news that doesn't.

MM2: Two people might see the same news story and get different information from it.

MM3: People are influenced by news whether they realize it or not.

MM3: News coverage of a political candidate will influence people's opinions.

MM4: News is designed to attract an audience's attention.

MM4: Lighting is used to make certain people in the news look good or bad.

MM4: Production techniques can be used to influence a viewer's perception.

MM4: When taking pictures, photographers decide what is most important.

RR1: News makes things more dramatic than they really are.

RR2: A news story that has good pictures is more likely to show up in the news.

RR2: A story about conflict is more likely to be featured prominently.

RR2: A journalist's first obligation is to the truth.

Figure (4): Potter's Cognitive Media Literacy Model
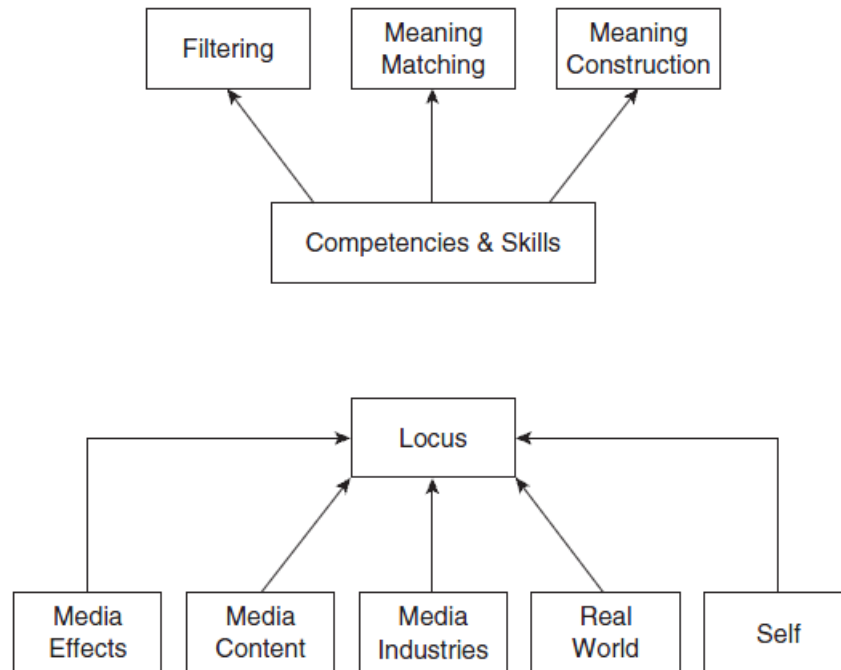
Figure (5): Craft, Maksl & Ashley's News Media Literacy Model
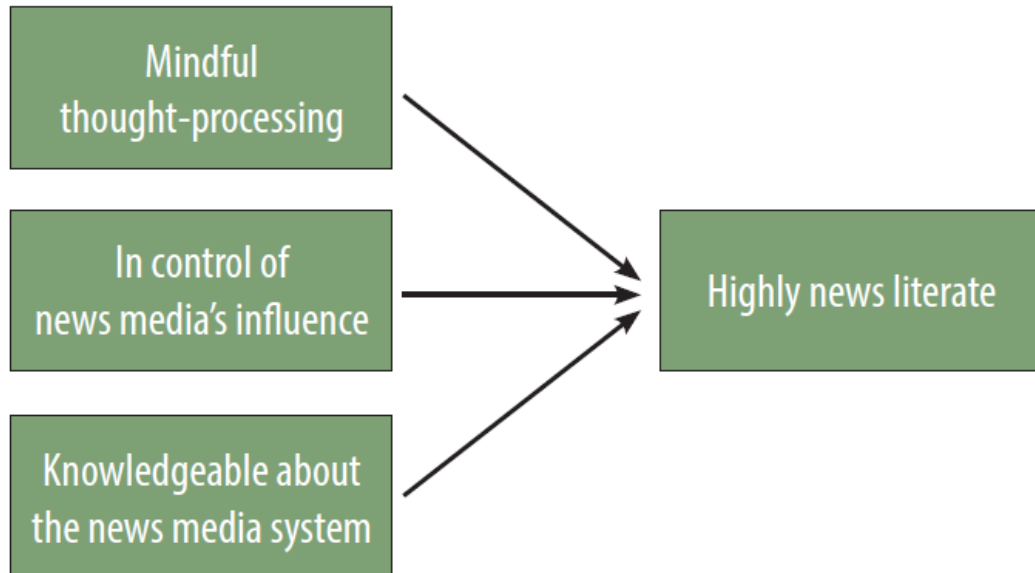
Appendix (A): The Conceptual Framework

The research assessed the news media literacy skills to distinguish between students who have high and low news media literacy levels and its relation to the news processing and political knowledge levels
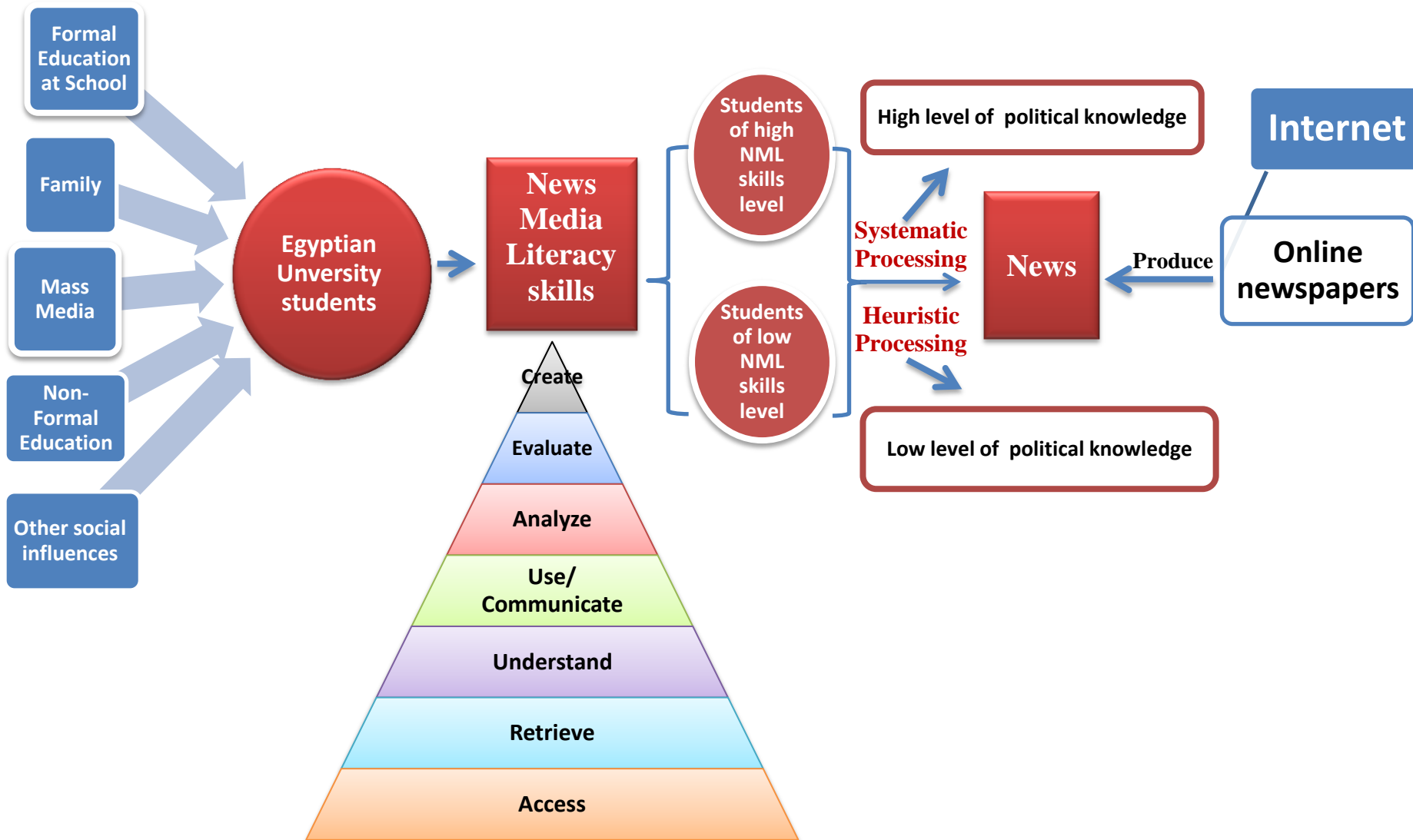
Appendix (B) : Cognitive Mediation Model &

Heuristic Systematic Model

CMM (Eveland, 2001)

Figure 1. Hypothesized Cognitive Mediation Model
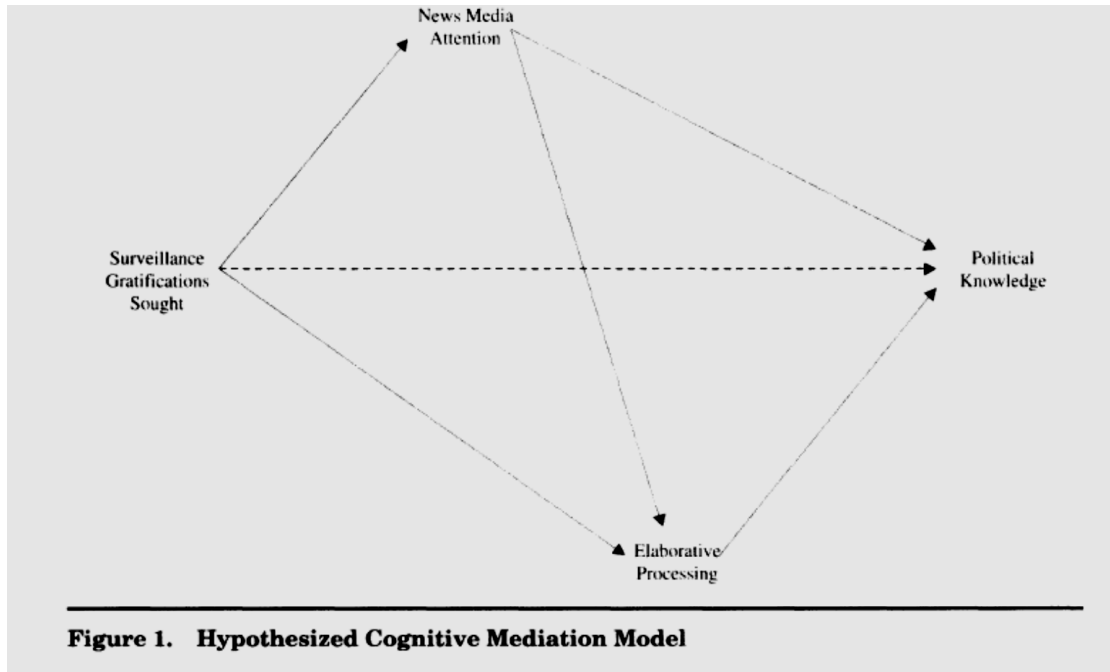
HSM (Reimer, Mata, Katsikopoulos, & Opwis (2005)
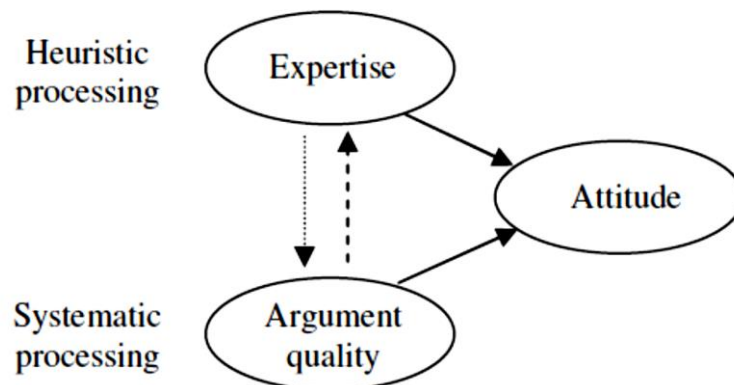
Figure 1: Heuristic and systematic information processing are assumed to exert different attitude effects.

Appendix (C): The final questionnaire form

Section I: Self-Reporting Questions

Please select the best answer that describes your status.

1. **You are currently a student in the …**
   1) Undergraduate program
   2) Graduate program
   3) Other (please specify)……………………

2. **Which field is your major related to?**
   a) Media
   b) Politics
   c) Other (please specify)……………………

3. **On average, how many hours per <u>day</u> do you use the Internet through computers, tabs and/or mobile phones?**
   a) Zero hours
   b) Less than 3 hours
   c) More than 3 and Less than 7 hours
   d) More than 7 hours

4. **On average, how many hours per <u>day</u> do you follow online <u>news</u>papers ….**
   a) Zero hours
   b) Less than 3 hours
   c) More than 3 and Less than 7 hours
   d) More than 7 hours

5. **How much reliance do you place on online newspapers to stay informed about politics?**
   a) None
   b) A little
   c) Some
   d) A lot
   e) complete

Section II: Scale Questions

Please mark the answer that best describes your skills in dealing with the news media based on your level of agreement with each statement.

1. The news media enable me to understand what is going on in politics.

Strongly agree   Agree   Neutral   Disagree   Strongly Disagree

2. I make a bookmark of news web pages.

Never   Rarely   Sometimes   Often   Always

3. I follow news in different online newspapers.

Never   Rarely   Sometimes   Often   Always

4. I pay more attention to news that fits with my beliefs than news that doesn't.

Never   Rarely   Sometimes   Often   Always

5. If I am writing a news event to be published online, I can take photos and decide which are most relevant to news story.

Never   Rarely   Sometimes   Often   Always

6. I mention the source of any news information that I share through the Internet.

Never   Rarely   Sometimes   Often   Always

7. I can produce a news story for an online newspaper.

Never   Rarely   Sometimes   Often   Always

8. I check news information received from TV, radio or newspaper, through online newspapers for verification.

Never   Rarely   Sometimes   Often   Always

9. I search news information through the online newspapers' search engine.

Never   Rarely   Sometimes   Often   Always

10. I find news sources that reflect my own political values on the online newspapers.

Never   Rarely   Sometimes   Often   Always

11. I store digital news information retrieved from online newspapers.

Never   Rarely   Sometimes   Often   Always

12. A journalist's first obligation is to the truth by presenting and verifying facts.

Strongly agree   Agree   Neutral   Disagree   Strongly Disagree

13. Most people tend to think that news has a greater effect on others than themselves.

Strongly agree   Agree   Neutral   Disagree   Strongly Disagree

14. I send and share news links or copied news messages through email or social media.

Never   Rarely   Sometimes   Often   Always

15. A story about conflict is more likely to be featured prominently.

Strongly agree   Agree   Neutral   Disagree   Strongly Disagree

16. I am likely to focus on political issues in the news very attentively.

Strongly agree   Agree   Neutral   Disagree   Strongly Disagree

17. I read online newspapers using computers.

Never   Rarely   Sometimes   Often   Always

18. News is designed to attract an audience's attention.

Strongly agree   Agree   Neutral   Disagree   Strongly Disagree

19. I can effectively determine whether or not the news information is correct and reliable.

Strongly agree   Agree   Neutral   Disagree   Strongly Disagree

20. If I decide to change my selected news sources, I can differentiate which sources provide me with credible news information.

Strongly agree   Agree   Neutral   Disagree   Strongly Disagree

21. It is quite important for me to know as much as possible about political issues.

Strongly agree   Agree   Neutral   Disagree   Strongly Disagree

22. I am not interested in specific background information on political issues.

Strongly agree   Agree   Neutral   Disagree   Strongly Disagree

23. I rarely spend much time thinking about the news information with respect to political issues.

Strongly agree   Agree   Neutral   Disagree   Strongly Disagree

24. I read online newspapers using tablets.

Never   **Rarely**   **Sometimes**   **Often**   **Always**

25. The news media allow me to keep up with political happenings.

Strongly agree   **Agree**   **Neutral**   **Disagree**   **Strongly Disagree**

26. Most news stories give representation to all sides of an issue.

Strongly agree   **Agree**   **Neutral**   **Disagree**   **Strongly Disagree**

27. The news media prepare me for future political discussions.

Strongly agree   **Agree**   **Neutral**   **Disagree**   **Strongly Disagree**

28. I enjoy the excitement of an election race.

Strongly agree   **Agree**   **Neutral**   **Disagree**   **Strongly Disagree**

29. Often, when I learn about something in the news, I will recall it later and think about it.

Strongly agree   **Agree**   **Neutral**   **Disagree**   **Strongly Disagree**

30. I rarely spend time thinking about the news stories that I read or heard earlier.

Strongly agree   **Agree**   **Neutral**   **Disagree**   **Strongly Disagree**

31. The more viewpoints I get the better.

Strongly agree   **Agree**   **Neutral**   **Disagree**   **Strongly Disagree**

32. I often interpret news stories in a way that helps me make sense of them.

Strongly agree   **Agree**   **Neutral**   **Disagree**   **Strongly Disagree**

33. I criticize the quality of news information.

Never   **Rarely**   **Sometimes**   **Often**   **Always**

34. Two people might see the same news story and get different information from it.

Strongly agree   **Agree**   **Neutral**   **Disagree**   **Strongly Disagree**

35. The owner of an online newspaper influences the content that is produced**.**

Strongly agree   **Agree**   **Neutral**   **Disagree**   **Strongly disagree**

36. I often skim through news stories on political issues.

Strongly agree   **Agree**   **Neutral**   **Disagree**   **Strongly Disagree**

Section III: Multiple Choice Questions on Political Knowledge

Please select the suitable answer according to your knowledge.

1. **Which system is the Egyptian political system most similar to? (Mark all that apply)**
   a) A presidential system
   b) Republicanism
   c) Parliamentary republic
   d) A semi-presidential system
   e) Don't know

2. **What is one of the tasks of the prime minister?**
   a) Controlling the extensive powers of the president and monitoring the governmental activities
   b) Heading the cabinet
   c) Amending the constitution
   d) Leading the armed forces as the supreme commander and heading the executive branch of the Egyptian government
   e) Don't know

3. **What is one of the tasks of the president?**
   a) Controlling the extensive powers of the executive power and monitoring the governmental activities
   b) Heading the cabinet
   c) Amending the constitution
   d) Leading the armed forces as the supreme commander and heading the executive branch of the Egyptian government
   e) Don't know

4. **What is the main task of the Committee of 50?**
   a) Controlling the extensive powers of the executive power and monitoring the governmental activities
   b) Heading the cabinet
   c) Amending the constitution
   d) Leading the armed forces as the supreme commander and heading the executive branch of the Egyptian government
   e) Don't know

5. **What is one of the tasks of parliament?**

   a) Controlling the extensive powers of the executive power and monitoring the governmental activities

b) Heading the cabinet
c) Amending the constitution
d) Leading the armed forces as the supreme commander and heading the executive branch of the Egyptian government
e) Don't know

6. Which party held the second most seats in the last elected parliament (2011-2012)?

    a) …..………………..………………………
    b) Don't Know

7. Who is the former speaker of parliament?

    a) …..………………..………………………
    b) Don't Know

8. Who is the current prime minister?
    a) …..………………..………………………
    b) Don't Know

9. What are the parties that have members in the Committee of 50? (Mark all that apply)
    a) …..………………..………………………
    b) Don't Know

10. What do you know about the definition of "Secularism"?
    a) Your definition: ……..……………………….
    b) Don't Know

11. If you have any comments about politics and the media, please list them below.

12. If you have any comments about the survey, please list them below.

نموذج لإختبار العلاقة بين مهارات التربية الإعلامية، ومعالجة الأخبار المنهجية و غير المنهجية ، و مستويات المعرفة السياسية

إستمارة إستبيان

القسم الأول : أسئلة التقييم الذاتى

نم فـضلك كخـتـارفـلـضـل ١ جلـاث الـتّـعـبـز كّـنـك.

٦. أنت حالياً طالباً فى

4) الـمزحـلت لـل جاهـيت
5) مزحـلت لـلدرس الثـكـاليا
6) أخزي)هـلّكز(.............

٧. ما هو تخصصك ؟
1) إعلام
2) كـلّىم سـىـاسـيت
3) أخزي)هـلّكز(.............

٨. فى المتوسط كم عدد الساعات فى اليوم التى تستخدم الانترنت من خلال الكمبيوتر ، التابلت (اللوحة الذكية) ، و/ أو التليفون المحمول ؟

1) ولا سـكّـنت
2) أقل من 3سـراگـاث
3) كـأثـز من 3 وأقـل من 7سـگـاث
4) كـأثـز من 7سـراگـاث

٩. فى المتوسط كم عدد الساعات فى اليوم التى تتابع فيها الصحف الالكترونية ؟

1) ولا سـكّـنت
2) أقل من 3سـراگـاث
3) كـأثـز من 3 وأقـل من 7سـگـاث
4) كـأثـز من 7سـراگـاث

١٠. إلى أى مدى تعتمد على الصحف الالكترونية للتعرف على الأخبار السياسية ؟

1) لا گـتـنـمد
2) گـتـمقـليلا
3) إ لـّ حد ما
4) لخّـيـزاً گـتـمد
5) گـتـمكّـلـيـاه الـهـياً

القسم الثانى : أسئلة المقياس

ضع علامة (√) أمام الإجابة الأفضل التى تصف مهاراتك فى التعامل مع الأخبار كما تبدأ كل درجة موافقتك مع كل عبارة .

١. الأخبار تمكنى من فهم ما يدور حولى فى السياسة

أوافق بشدة	أوافق	محايد	رأفض	أرفض بشدة

٢. أنا أضع صفحات الأخبار بالإنترنت فى المفضلة

دائماً	غالباً	أحياناً	نادراً	لا أبداً

٣. أنا أتابع الأخبار فى صحف إلكترونية مختلفة

دائماً	غالباً	أحياناً	نادراً	لا أبداً

٤. تلفت انتباهى أكثر الأخبار التى تتفق مع معتقداتى عن تلك التى لا تتفق

دائماً	غالباً	أحياناً	نادراً	لا أبداً

٥. إذا كنت أكتب حدثاً إخبارياً لينشر بالإنترنت، أستطيع أخذ صور وأقرر أيها أكثر تلاؤماً مع الخبر

دائماً	غالباً	أحياناً	نادراً	لا أبداً

٦. أنا أذكر أى مصدر أى معلومات إخبارية أعمل لها مشاركة على الانترنت

دائماً	غالباً	أحياناً	نادراً	لا أبداً

٧. أستطيع إنتاج قصة خبرية لصحيفة إلكترونية

دائماً	غالباً	أحياناً	نادراً	لا أبداً

٨. أقوم بمراجعة الأخبار التى أتلقاها من التليفزيون أو الراديو أو الصحف عن طريق الصحف الالكترونية للتحقق منها

دائماً	غالباً	أحياناً	نادراً	لا أبداً

٩. أبحث عن الأخبار بواسطة آلة البحث الالكترونى للصحف

دائماً	غالباً	أحياناً	نادراً	لا أبداً

١٠. أجد مصادر الأخبار التى تعكس القيم السياسية التى تعبر عنى فى الصحف الالكترونية

دائماً	غالباً	أحياناً	نادراً	لا أبداً

١١. أقوم بتخزين وحفظ الأخبار من مواقع الصحف الالكترونية

دائماً	غالباً	أحياناً	نادراً	لا أبداً

١٢. الصدق هو أول التزام للصحفى عن طريق تقديم وتأكيد الحقائق

أوافق بشدة	أوافق	محايد	رأفض	أرفض بشدة

١٣.معظم الناس يميلون للاعتقاد أن الخبر له تأثير أكبر على الآخرين من التأثير عليهم أنفسهم

أوافق بشدة   أوافق   محايد   أرفض   أرفض بشدة

١٤.أنا أرسل وأتشارك روابط الأخبار أو رسائل الأخبار المنسوخة عن طريق البريد الالكترونى أو مواقع التواصل الاجتماعى

دائماً   غالباً   أحياناً   نادراً   لا أبداً

١٥.الأخبار التى تتناول الصراعات تكون أكثر تداولاً و ظهوراً فى الأخبار

أوافق بشدة   أوافق   محايد   أرفض   أرفض بشدة

١٦.أنا أركز على القضايا السياسية فى الأخبار بإنتباه شديد

أوافق بشدة   أوافق   محايد   أرفض   أرفض بشدة

١٧.أنا أقرأ الصحف الالكترونية مستخدماً الكمبيوتر

دائماً   غالباً   أحياناً   نادراً   لا أبداً

١٨.يتم تصميم الأخبار لتجذب انتباه المشاهد

أوافق بشدة   أوافق   محايد   أرفض   أرفض بشدة

١٩.أستطيع أن أجزم ما إذا كانت الأخبار صحيحة ويعتمد عليها أم لا

أوافق بشدة   أوافق   محايد   أرفض   أرفض بشدة

٢٠.إذا ما قررت تغيير مصادرى المختارة للأخبار ، أستطيع أن أميز أى المصادر تمدنى بمعلوما إخبارية موثوق بها

أوافق بشدة   أوافق   محايد   أرفض   أرفض بشدة

٢١.من المهم لى أن أعرف أكثر ما يمكن أن أعرفه عن القضايا السياسية

أوافق بشدة   أوافق   محايد   أرفض   أرفض بشدة

٢٢.أنا لست مهتماً بمعلومات معينة فى القضايا السياسية

أوافق بشدة   أوافق   محايد   أرفض   أرفض بشدة

٢٣.أنا نادراً ما أقضى وقتاً كبيراً فى التفكير فى الأخبار المتعلقة بالقضايا السياسية

أوافق بشدة   أوافق   محايد   أرفض   أرفض بشدة

٢٤.أنا أقرأ الصحف الالكترونية مستخدماً التابلت (اللوحة الذكية)

دائماً   غالباً   أحياناً   نادراً   لا أبداً

٢٥.الأخبار تمكنى من متابعة الأحداث السياسية

أوافق بشدة   أوافق   محايد   أرفض   أرفض بشدة

٢٦. معظم الأخبار تعرض كل جوانب الموضوع

أوافق بشدة	أوافق	محايد	رأفض	أرفض بشدة

٢٧. الأخبار تقوم بإعدادى للمناقشات السياسية المستقبلية

أوافق بشدة	أوافق	محايد	رأفض	أرفض بشدة

٢٨. أنا أستمتع بإثارة سباق الانتخابات

أوافق بشدة	أوافق	محايد	رأفض	أرفض بشدة

٢٩. غالباً ، عندما أعلم عن شيء بالأخبار ، أقوم باستدعائه مؤخراً والتفكير فيه

أوافق بشدة	أوافق	محايد	رأفض	أرفض بشدة

٣٠. نادراً ما أقضى وقتاً أفكر فى الأخبار التى قرأتها أو سمعتها مسبقاً

أوافق بشدة	أوافق	محايد	رأفض	أرفض بشدة

٣١. كلما تلقيت وجهات نظر أكثر كلما كان ذلك كان أفضل

أوافق بشدة	أوافق	محايد	رأفض	أرفض بشدة

٣٢. غالباً ما أفسر الأخبار بطريقة تساعدنى على فهمها

أوافق بشدة	أوافق	محايد	رأفض	أرفض بشدة

٣٣. أنا أنتقد جودة الأخبار

لا أبداً	نادراً	أحياناً	غالباً	دائماً

٣٤. من الممكن أن يشاهد شخصان نفس الخبر ويحصلان على معلومات مختلفة منه

أوافق بشدة	أوافق	محايد	رأفض	أرفض بشدة

٣٥. مالك الصحيفة الإلكترونية يؤثر على ما ينتج من محتوى

أوافق بشدة	أوافق	محايد	رأفض	أرفض بشدة

٣٦. غالبا ما أتصفح الأخبار الخاصة بالقضايا السياسية

أوافق بشدة	أوافق	محايد	رأفض	أرفض بشدة

القسم الثالث : الأسئلة متعددة الاختيارات عن المعلومات السياسية

من فضلك قم بإختيار الاجابة المناسبة طبقاً لمعلوماتك .

١. أى الأنظمة يعتبر النظام السياسى المصرى (ضع علامة على كل ما ينطبق عليه)
  1) نظام رئاسى
  2) نظام جمهوري
  3) نظام شبه جمهوري
  4) نظام شبه رئاسى
  5) لا أعرف

٢. ما هى إحدى مهام رئيس الوزراء ؟
  1) مراقبت أحكام الرئيس والشرطة المحلية
  2) رئاسة مجلس الوزراء
  3) تكييف الدستور
  4) قيادة القوات المسلحة والقائد العام للقوات المسلحة ورئاسة الفرع التنفيذي للحكومة المصرية
  5) لا أعرف

٣. ماهى إحدى مهام رئيس الجمهورية؟
  1) مراقبت أحكام الرئيس والشرطة المحلية
  2) رئاسة مجلس الوزراء
  3) تكييف الدستور
  4) قيادة القوات المسلحة والقائد العام للقوات المسلحة ورئاسة الفرع التنفيذي للحكومة المصرية
  5) لا أعرف

٤. ماهى المهمة الرئيسية للجنة الخمسين ؟
  1. مراقبت أحكام الرئيس والشرطة المحلية
  2. رئاسة مجلس الوزراء
  3. تكييف الدستور
  4. قيادة القوات المسلحة والقائد العام للقوات المسلحة ورئاسة الفرع التنفيذي للحكومة المصرية
  5. لا أعرف

٥. ما هى إحدى مهام البرلمان ؟
  1) مراقبت أحكام الرئيس والشرطة المحلية
  2) رئاسة مجلس الوزراء
  3) تكييف الدستور
  4) قيادة القوات المسلحة والقائد العام للقوات المسلحة ورئاسة الفرع التنفيذي للحكومة المصرية
  5) لا أعرف

٦. أى حزب حصل على معظم مقاعد المركز الثاني فى الدورة البرلمانية الأخيرة (٢٠١١- ٢٠١٢) ؟
  1) ....
  2) لا أعرف

٧. من هو الرئيس السابق للبرلمان ؟

3) ....

4) لا گـزف

٨. من هو رئيس الوزراء الحالى ؟

1) ....

2) لا گـزف

٩. ماهى الأحزاب التى لديها أعضاء بلجنة الخمسين ؟ (ضع علامة على كل ما ينطبق عليه)

1) ....

2) لا گـزف

١٠. ماذا تعرف عن المصطلح " العلمانية " ؟

1) ككپزيفك:...................

2) لا گـزف

١١. إذا كان لديك أى تعليقات عن السياسة والاعلام ، من فضلك أذكرها .

....

١٢. إذا كان لديك أى تعليقات عن الإستبيان ، من فضلك أذكرها .

....

Appendix (D): Factor Analysis Results

THE MEDIA GRATIFICATIONS SOUGHT
surveillance

Total Variance Explained

Compo nent	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.205	40.153	40.153	1.205	40.153	40.153
2	1.039	34.630	74.783	1.039	34.630	**74.783**
3	.756	25.217	100.000			

Extraction Method: Principal Component Analysis.

Component (Factor) Matrix

Component Matrix[a]

	Component	
	1	2
S1	.318	**.870**
S2	**.675**	-.523-
S3	-.805-	-.094-

Extraction Method: Principal

Component Analysis.

a. 2 components extracted.

Rotated Component (Factor) Matrix

Rotated Component Matrix[a]

	Component	
	1	2
S1	-.011-	**.926**
S2	**.816**	-.249-
S3	-.719-	-.374-

Extraction Method: Principal

Component Analysis.

Rotation Method: Varimax with

Kaiser Normalization.

a. Rotation converged in 3

iterations.

Component Score Coefficient

Matrix

	Component	
	1	2
S1	-.050-	.877
S2	.702	-.271-
S3	-.593-	-.322-

Extraction Method: Principal

Component Analysis.

Rotation Method: Varimax with

Kaiser Normalization.

THE MEDIA GRATIFICATIONS SOUGHT
Anticipated interaction

Total Variance Explained

Compo nent	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.420	47.341	47.341	1.420	47.341	**47.341**
2	.969	32.287	79.628			
3	.611	20.372	100.000			

Extraction Method: Principal Component Analysis.

Component (Factor) Matrix

Component Matrix[a]

	Component
	1
AI1	**.749**
AI2	**.825**
AI3	.423

Extraction Method:

Principal Component

Analysis.

a. 1 components

extracted.

Component Score
Coefficient Matrix

	Component
	1
AI1	.527
AI2	.581
AI3	.298

Extraction Method:

Principal Component

Analysis.

Rotation Method:

Varimax with Kaiser

Normalization.

Elaborative Processing

Total Variance Explained

Compo nent	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.767	58.902	58.902	1.767	58.902	**58.902**
2	.684	22.790	81.693			
3	.549	18.307	100.000			

Extraction Method: Principal Component Analysis.

Component (Factor) Matrix

Component Matrix[a]

	Component
	1
EP1	**.732**
EP2	**.807**
EP3	**.761**

Extraction Method:

Principal Component

Analysis.

a. 1 components

extracted.

Component Score

Coefficient Matrix

	Component
	1
EP1	.414
EP2	.457
EP3	.431

Extraction Method:

Principal Component

Analysis.

Rotation Method:

Varimax with Kaiser

Normalization.

<u>Access skills</u>

Total Variance Explained

Compo nent	Initial Eigenvalues			Extraction Sums of Squared Loadings		
			Cumulative %			Cumulative %
1	1.161	38.686	38.686	1.161	38.686	38.686
2	1.018	33.929	72.616	1.018	33.929	**72.616**
3	.822	27.384	100.000			

Extraction Method: Principal Component Analysis.

<u>Component (Factor) Matrix</u>

Component Matrix^a

	Component	
	1	2
AC3	.781	.045
AC1	.380	.840
AC2	.638	-.556-

Extraction Method: Principal

Component Analysis.

a. 2 components extracted.

<u>Rotated Component (Factor) Matrix</u>

Rotated Component Matrix^a

	Component	
	1	2
AC3	.687	.373
AC1	-.013-	**.922**
AC2	**.814**	-.233-

Extraction Method: Principal

Component Analysis.

Rotation Method: Varimax with

Kaiser Normalization.

a. Rotation converged in 3

iterations.

Retrieve skills

Total Variance Explained

Compo nent	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.888	37.766	37.766	1.888	37.766	**37.766**
2	1.407	28.141	65.907	1.407	28.141	65.907
3	.964	19.277	85.184			
4	.456	9.112	94.296			
5	.285	5.704	100.000			

Extraction Method: Principal Component Analysis.

Component (Factor) Matrix

Component Matrix^a

	Component	
	1	2
RE1	.786	.145
RE2	.814	.039
RE3	.516	.703
RE4	.544	-.679-
RE5	-.212-	.655

Extraction Method: Principal

Component Analysis.

a. 2 components extracted.

Rotated Component (Factor) Matrix

Rotated Component Matrix^a

	Component	
	1	2
RE1	**.787**	.139
RE2	**.777**	.247
RE3	**.729**	-.479-
RE4	.273	.826
RE5	.030	-.688-

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

Understand skills

Total Variance Explained

Compo nent	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.195	31.360	31.360	2.195	31.360	31.360
2	1.664	23.766	55.126	1.664	23.766	**55.126**
3	1.167	16.669	71.795	1.167	16.669	71.795
4	.681	9.730	81.525			
5	.580	8.292	89.817			
6	.429	6.134	95.950			
7	.283	4.050	100.000			

Extraction Method: Principal Component Analysis.

Component (Factor) Matrix

Component Matrix^a

	Component		
	1	2	3
UN1	.691	.268	-.479-
UN2	.227	.745	.238
UN5	.560	-.575-	-.348-
UN6	.452	-.339-	.641
UN3	.857	.053	-.196-
UN4	.522	.537	.378
UN7	.374	-.549-	.409

Extraction Method: Principal Component
Analysis.

a. 3 components extracted.

Rotated Component (Factor) Matrix

Rotated Component Matrix[a]

	Component		
	1	2	3
UN1	**.838**	.217	-.171-
UN2	.053	**.800**	-.145-
UN5	.665	-.464-	.329
UN6	.030	.153	.840
UN3	**.824**	.220	.221
UN4	.225	**.782**	.202
UN7	.094	-.152-	.759

Extraction Method: Principal Component
Analysis.

Rotation Method: Varimax with Kaiser
Normalization.

a. Rotation converged in 5 iterations.

Use communicate

Total Variance Explained

Compo nent	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.036	50.910	50.910	2.036	50.910	**50.910**
2	.974	24.355	75.265			
3	.666	16.646	91.911			
4	.324	8.089	100.000			

Extraction Method: Principal Component Analysis.

Component (Factor) Matrix

Component Matrix[a]

	Component
	1
UC1	**.850**
UC2	**.710**
UC4	-.517-
UC3	**.736**

Extraction Method:

Principal Component

Analysis.

a. 1 components

extracted.

Component Score

Coefficient Matrix

	Component
	1
UC1	.418
UC2	.349
UC4	-.254-
UC3	.361

Extraction Method:

Principal Component

Analysis.

Rotation Method:

Varimax with Kaiser

Normalization.

133

Analysis skills

Total Variance Explained

Compo nent	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.973	37.166	37.166	2.973	37.166	37.166
2	1.391	17.386	54.551	1.391	17.386	54.551
3	.959	11.983	66.534			
4	.843	10.537	77.071			
5	.717	8.959	86.030			
6	.542	6.773	92.803			
7	.343	4.289	97.092			
8	.233	2.908	100.000			

Extraction Method: Principal Component Analysis.

Component (Factor) Matrix

Component Matrix[a]

	Component	
	1	2
AN1	.614	-.356-
AN2	.589	-.460-
AN3	.251	.728
AN5	.523	-.345-
AN6	.772	.079
AN4	.827	-.084-
AN8	.593	.433
AN7	.529	.449

Extraction Method: Principal

Component Analysis.

a. 2 components extracted.

Rotated Component (Factor) Matrix

Rotated Component Matrix[a]

	Component	
	1	2
AN1	**.707**	.073
AN2	**.747**	-.026-
AN3	-.225-	**.737**
AN5	.626	.028
AN6	.578	.518
AN4	**.718**	.418
AN8	.226	.699
AN7	.165	.674

Extraction Method: Principal
Component Analysis.
Rotation Method: Varimax with
Kaiser Normalization.

a. Rotation converged in 3
iterations.

Evaluate skills

Total Variance Explained

Compo nent	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.108	26.349	26.349	2.108	26.349	26.349
2	1.873	23.417	49.766	1.873	23.417	**49.766**
3	1.306	16.328	66.093	1.306	16.328	66.093
4	1.166	14.579	80.672	1.166	14.579	80.672
5	.681	8.509	89.181			
6	.411	5.135	94.316			
7	.256	3.196	97.513			
8	.199	2.487	100.000			

Extraction Method: Principal Component Analysis.

Component (Factor) Matrix

Component Matrix[a]

	Component			
	1	2	3	4
EV5	.395	-.209-	.829	-.014-
EV6	.343	-.479-	.083	.587
EV7	.565	.079	-.037-	.592
EV1	.740	-.033-	-.499-	-.308-
EV2	.570	.523	.418	-.153-
EV8	.240	.724	-.341-	.406
EV3	-.029-	.844	.218	-.132-
EV4	.764	-.288-	-.152-	-.413-

Extraction Method: Principal Component Analysis.

a. 4 components extracted.

Rotated Component (Factor) Matrix

Rotated Component Matrix[a]

	Component			
	1	2	3	4
EV5	.058	.022	.926	.163
EV6	-.400-	.020	.221	.699
EV7	.158	.153	.028	.793
EV1	.068	**.917**	-.168-	.133
EV2	**.724**	.274	.430	.113
EV8	.647	.013	-.493-	.448
EV3	**.846**	-.169-	-.023-	-.181-
EV4	-.093-	**.891**	.237	.053

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 7 iterations.

Create skills

Total Variance Explained

Compo nent	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.725	45.415	45.415	2.725	45.415	**45.415**
2	1.126	18.770	64.185	1.126	18.770	64.185
3	.981	16.348	80.533			
4	.511	8.519	89.052			
5	.372	6.195	95.247			
6	.285	4.753	100.000			

Extraction Method: Principal Component Analysis.

Component (Factor) Matrix

Component Matrix^a

	Component	
	1	2
CR1	.826	.304
CR2	.816	.134
CR4	.286	-.258-
CR5	-.153-	.921
CR3	.848	.094
CR6	.744	-.303-

Extraction Method: Principal

Component Analysis.

a. 2 components extracted.

Rotated Component (Factor) Matrix

Rotated Component Matrix[a]

	Component	
	1	2
CR1	**.879**	-.037-
CR2	**.818**	.123
CR4	.193	.333
CR5	.136	-.924-
CR3	**.836**	.170
CR6	.615	.516

Extraction Method: Principal

Component Analysis.

Rotation Method: Varimax with

Kaiser Normalization.

a. Rotation converged in 3

iterations.

Systematic News Processing

Total Variance Explained

Compo nent	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.140	53.497	53.497	2.140	53.497	**53.497**
2	.993	24.827	78.324			
3	.638	15.940	94.264			
4	.229	5.736	100.000			

Extraction Method: Principal Component Analysis.

Component (Factor) Matrix

Component Matrix[a]

	Component
	1
SNP2	**.675**
SNP3	**.918**
SNP4	-.433-
SNP1	**.809**

Extraction Method:

Principal Component

Analysis.

a. 1 components

extracted.

Component Score

Coefficient Matrix

	Component
	1
SNP2	.315
SNP3	.429
SNP4	-.202-
SNP1	.378

Extraction Method:

Principal Component

Analysis.

Rotation Method:

Varimax with Kaiser

Normalization.

Heuristic News Processing

Total Variance Explained

Compo nent	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.958	48.947	48.947	1.958	48.947	**48.947**
2	.895	22.384	71.331			
3	.794	19.858	91.188			
4	.352	8.812	100.000			

Extraction Method: Principal Component Analysis.

Component (Factor) Matrix

Component Matrix[a]

	Component
	1
HNP1	.751
HNP2	.845
HNP4	-.494-
HNP3	.659

Extraction Method:

Principal Component

Analysis.

a. 1 components

extracted.

Component Score

Coefficient Matrix

	Component
	1
HNP1	.384
HNP2	.432
HNP4	-.252-
HNP3	.337

Extraction Method:

Principal Component

Analysis.

Rotation Method:

Varimax with Kaiser

Normalization.

Appendix (E): Scale indices

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 <u>before</u> factor analysis	**Composite 10 items**
Total Scale <u>after</u> factor analysis	**Composite 8 items**

* Reversed on the scale

** *Items removed after factor analysis*

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*

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	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**

* Reversed on the scale

** Items removed after factor analysis

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**

** Items removed after factor analysis

Appendix (F): reliability results for Scale of News Media Literacy Skills

Scale: SNMLS

Case Processing Summary

		N	%
Cases	Valid	147	69.3
	Excluded[a]	65	30.7
	Total	212	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.751	23

Appendix (G): Additional Results' Tables

<u>Media Field:</u>

HNP * SNMLS

Case Processing Summary[a]

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
HNP * SNMLS	38	62.3%	23	37.7%	61	100.0%
SNP * SNMLS	41	67.2%	20	32.8%	61	100.0%

a. Which field is your major related to? = Media

Chi-Square Tests[a]

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.016[b]	2	.992
Likelihood Ratio	.016	2	.992
Linear-by-Linear Association	.007	1	.935
N of Valid Cases	38		

a. Which field is your major related to? = Media

b. 4 cells (66.7%) have expected count less than 5. The minimum expected count is .92.

SNP * SNMLS

Chi-Square Tests[a]

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.252[b]	2	.535
Likelihood Ratio	1.541	2	.463
Linear-by-Linear Association	.471	1	.493
N of Valid Cases	41		

a. Which field is your major related to? = Media

b. 4 cells (66.7%) have expected count less than 5. The minimum expected count is .39.

Other Fields:

Case Processing Summary[a]

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
HNP * SNMLS	94	74.0%	33	26.0%	127	100.0%
SNP * SNMLS	104	81.9%	23	18.1%	127	100.0%

a. Which field is your major related to? = Other (please specify)

HNP * SNMLS

Chi-Square Tests[a]

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.663[b]	4	.020
Likelihood Ratio	11.946	4	.018
Linear-by-Linear Association	10.736	1	.001
N of Valid Cases	94		

a. Which field is your major related to? = Other (please specify)

b. 4 cells (44.4%) have expected count less than 5. The minimum expected count is .64.

SNP * SNMLS

Chi-Square Tests[a]

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	20.737[b]	4	.000
Likelihood Ratio	19.694	4	.001
Linear-by-Linear Association	6.940	1	.008
N of Valid Cases	104		

a. Which field is your major related to? = Other (please specify)

b. 4 cells (44.4%) have expected count less than 5. The minimum expected count is .42.

Politics Field:

Case Processing Summary[a]

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
HNP * SNMLS	18	75.0%	6	25.0%	24	100.0%
SNP * SNMLS	21	87.5%	3	12.5%	24	100.0%

a. Which field is your major related to? = Politics

HNP * SNMLS

Chi-Square Tests[a]

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.407[b]	2	.816
Likelihood Ratio	.673	2	.714
Linear-by-Linear Association	.333	1	.564
N of Valid Cases	18		

a. Which field is your major related to? = Politics

b. 5 cells (83.3%) have expected count less than 5. The minimum expected count is .06.

SNP * SNMLS

Chi-Square Tests[a]

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.053[b]	1	.819		
Continuity Correction[c]	.000	1	1.000		
Likelihood Ratio	.100	1	.752		
Fisher's Exact Test				1.000	.952
Linear-by-Linear Association	.050	1	.823		
N of Valid Cases	21				

a. Which field is your major related to? = Politics

b. 3 cells (75.0%) have expected count less than 5. The minimum expected count is .05.

c. Computed only for a 2x2 table

Statistics

POLITICAL KNOWLEDGE

N	Valid	136
	Missing	76

POLITICAL KNOWLEDGE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Low	52	24.5	38.2	38.2
	High	84	39.6	61.8	100.0
	Total	136	64.2	100.0	
Missing	System	76	35.8		
Total		212	100.0		

SNP * POLITICAL KNOWLEDGE

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.326[a]	2	.190
Likelihood Ratio	3.245	2	.197
Linear-by-Linear Association	2.775	1	.096
N of Valid Cases	136		

a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 4.59.

HNP * POLITICAL KNOWLEDGE

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.668[a]	2	.003
Likelihood Ratio	11.945	2	.003
Linear-by-Linear Association	11.375	1	.001
N of Valid Cases	136		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 8.79.

SNMLS * POLITICAL KNOWLEDGE

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.478[a]	2	.176
Likelihood Ratio	3.415	2	.181
Linear-by-Linear Association	3.365	1	.067
N of Valid Cases	136		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 1.53.

ANTICIPATED INTERACTION * POLITICAL KNOWLEDGE

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.369[a]	2	.832
Likelihood Ratio	.365	2	.833
Linear-by-Linear Association	.049	1	.825
N of Valid Cases	136		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 8.79.

SURVEILLANCE * POLITICAL KNOWLEDGE

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.360[a]	2	.835
Likelihood Ratio	.359	2	.836
Linear-by-Linear Association	.071	1	.790
N of Valid Cases	136		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.74.

ELABORATIVE PROCESSING * POLITICAL KNOWLEDGE

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.867[a]	2	.020
Likelihood Ratio	7.695	2	.021
Linear-by-Linear Association	4.263	1	.039
N of Valid Cases	136		

a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 4.97.

NEWS MEDIA RELIANCE * POLITICAL KNOWLEDGE

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.030[a]	2	.081
Likelihood Ratio	5.215	2	.074
Linear-by-Linear Association	4.513	1	.034
N of Valid Cases	136		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 15.68.

Multiple Comparisons between the 2 groups of students according to their current programs and concerning the main study variables

	w1 You are currently a student in the …	N	Mean	Std. Deviation	Std. Error Mean
SNP	1 Graduate program	65	3.6744	.92910	.11524
	2 Undergraduate program	101	3.5462	.91016	.09056
HNP	1 Graduate program	59	2.8220	.79442	.10342
	2 Undergraduate program	91	2.9267	.89553	.09388
SNMLS	1 Graduate program	65	3.3341	.44128	.05473
	2 Undergraduate program	105	3.2431	.46968	.04584
PK	1 Graduate program	53	1.3922	.20734	.02848
	2 Undergraduate program	83	1.3536	.24994	.02743

Multiple Comparisons between the 3 groups of students according to their majors and concerning the main study variables

LSD

Dependent Variable	(I) w2 Which field is your major related to?	(J) w2 Which field is your major related to?	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
SNP	1 Media	2 Other (please specify)	.21377	.16277	.191	-.1076-	.5352
		3 Politics	-.59950-*	.23686	.012	-1.0672-	-.1318-
	2 Other (please specify)	1 Media	-.21377-	.16277	.191	-.5352-	.1076
		3 Politics	-.81326-*	.21117	.000	-1.2302-	-.3963-
	3 Politics	1 Media	.59950*	.23686	.012	.1318	1.0672
		2 Other (please specify)	.81326*	.21117	.000	.3963	1.2302
HNP	1 Media	2 Other (please specify)	-.00625-	.16433	.970	-.3310-	.3185
		3 Politics	.32846	.24459	.181	-.1549-	.8118
	2 Other (please specify)	1 Media	.00625	.16433	.970	-.3185-	.3310
		3 Politics	.33471	.21993	.130	-.0999-	.7693
	3 Politics	1 Media	-.32846-	.24459	.181	-.8118-	.1549
		2 Other (please specify)	-.33471-	.21993	.130	-.7693-	.0999
SNMLS	1 Media	2 Other (please specify)	.17854*	.07946	.026	.0217	.3354
		3 Politics	-.27367-*	.11663	.020	-.5039-	-.0434-
	2 Other (please specify)	1 Media	-.17854-*	.07946	.026	-.3354-	-.0217-
		3 Politics	-.45221-*	.10416	.000	-.6578-	-.2466-
	3 Politics	1 Media	.27367*	.11663	.020	.0434	.5039
		2 Other (please specify)	.45221*	.10416	.000	.2466	.6578
PK	1 Media	2 Other (please specify)	.00463	.04962	.926	-.0935-	.1028
		3 Politics	.06587	.07136	.358	-.0753-	.2070
	2 Other (please specify)	1 Media	-.00463-	.04962	.926	-.1028-	.0935
		3 Politics	.06124	.06222	.327	-.0618-	.1843

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3 Politics	1 Media	-.06587-	.07136	.358	-.2070-	.0753
	2 Other (please specify)	-.06124-	.06222	.327	-.1843-	.0618

*. The mean difference is significant at the 0.05 level.

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THE AMERICAN UNIVERSITY IN CAIRO
INSTITUTIONAL REVIEW BOARD

To: Doaa M. Fathalla

Cc: Nesrine Azmy

From**:** Atta Gebril, Chair of the IRB

Date**:** March 27**,** 2014

Re**:** Approval of study

This is to inform you that I reviewed your revised research proposal entitled "**A Model for Examining the Relation of News Media Literacy skills, News Processing and Political Knowledge levels,**" and determined that it required consultation with the IRB under the "expedited" heading. As you are aware, the members of the IRB suggested certain revisions to the original proposal, but your new version addresses these concerns successfully. The revised proposal used appropriate procedures to minimize risks to human subjects and that adequate provision was made for confidentiality and data anonymity of participants in any published record. I believe you will also make adequate provision for obtaining informed consent of the participants.

Please note that IRB approval does not automatically ensure approval by CAPMAS, an Egyptian government agency responsible for approving some types of off-campus research. CAPMAS issues are handled at AUC by the office of the University Counsellor, Dr. Amr Salama. The IRB is not in a position to offer any opinion on CAPMAS issues, and takes no responsibility for obtaining CAPMAS approval.

This approval is valid for only one year. In case you have not finished data collection within a year, you need to apply for an extension.

Thank you and good luck.

Dr. Atta Gebril
IRB chair, The American University in Cairo
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T: 02-26151919
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Media Literacy and Politics

1. Consent Form

*You are being asked to participate in a survey for a thesis topic. The purpose of the research is to test news media literacy skills and political knowledge among AUCian undergraduate and graduate Egyptian students. The findings might be published and/or presented. The expected duration of your participation is approximately 10:15 minutes to answer the survey questions. So, kindly be patient to answer all questions because your answer will contribute to the study by helping the researcher to reduce the number of questions in the final survey.

*There will not be any risks or discomforts associated with this research.

*There will be benefits for you from this research, which include: A) Contributing to the field by answering the survey questions, and B) The research results will be available for you by emailing me your interest in knowing the results even before publishing the study in a journal. C) After submitting the survey, you will find the correct answers for the political knowledge questions.

*The information you provide for purposes of this research is anonymous.

*Participation in this study is voluntary. Refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may discontinue participation at any time without penalty or the loss of benefits to which you are otherwise entitled.

In order to ensure that everyone's responses are unbiased by outside influences, please do not speak with anyone about the study. It is very important that others who may participate in the next couple of weeks not know the purpose of the study beforehand.

If you would like to learn more, you may be interested in reading the following scholarly articles:

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/

If you have any inquiries regarding this survey, please feel free to contact me:

Doaa Rady

doaafathalla@aucegypt.edu

Graduate Student of Journalism and Mass Communication

American University in Cairo

By proceeding on, this means you agree to the above statements of the consent form.

20%

Powered by **SurveyMonkey**
Check out our sample surveys and create your own now!

Appendix (J): List of abbreviations

- Heuristic Systematic Model **(HSM)**
- Cognitive Mediation Model **(CMM)**
- Heuristic News Processing **(HNP)**
- Systematic News Processing **(SNP)**
- Scale of News Media Literacy Skills **(SNMLS)**
- News Media Reliance **(NMR)**
- Surveillance (gratification sought) **(S)**
- Anticipated Interaction (gratification sought) **(AI)**
- Elaborative Processing **(EP)**
- Political knowledge **(PK)**

Appendix (K): Cognitive Mediation Model measures

used by Beaudoin C. E., & Thorson E. (2004)

A. Media Gratifications Sought

1. Surveillance

The news media enable me to understand what is going on in politics.

The news media allow me to keep up with political happenings.

The news media help me form my opinion on political leaders.

2. Anticipated Interaction

The news media help me develop ammunition for political arguments that

I will use with others.

The news media prepare me for future political discussions.

I enjoy the excitement of an election race.

B. News Media Reliance

How much reliance do you place on online newspapers to stay informed about politics? (Adapted to online newspapers)

C. Elaborative Processing

Often, when I learned about something in the news, I will recall it later and think about it.

I often interpret news stories in a way that helps me make sense of them.

I rarely spend time thinking about the news stories that I read or heard earlier. (Reversed on the scale)

Appendix (L): Statistics of the study Variables

Statistics

		S	AI	EP	NMR	POLITICALKNOWLEDGE	SNMILS	HNP	SNP
N	Valid	161	147	147	212	136	170	150	166
	Missing	51	65	65	0	76	42	62	46