



e-Journal of Media & Society

**COMMUNICATIVE EFFECTS OF HEALTH VISUAL MESSAGES ON  
CIGARETTES PACKAGING TOWARDS SMOKERS**

Rusydi Mohamad Kamal, Muhammad Hakimi Tew Abdullah, Abdul Rauf Ridzuan,  
Fakrulnizam Jafri and Iqbal Jaapar

Faculty of Communication and Media Studies  
Universiti Teknologi MARA, 78000 Alor Gajah, Melaka, Malaysia

\*[rusydi499@melaka.uitm.edu.my](mailto:rusydi499@melaka.uitm.edu.my)

**Abstract**

*This study on communicative effects of health visual messages on cigarettes packaging towards smokers is aimed at identifying the functions of visual communication of health message towards smokers on the danger of smoking. The new and aggressive strategy of displaying chronic diseases images on cigarettes packaging is chosen as the fundamental of this study as the researcher's intent to discover the effectiveness of the messages through visual communication in the form of health message. A qualitative approach with focused group interviews consisted of 10 informants from different demographic factors were done. Finding analysis is matched with the paradigm framework of active message processing written by Pfau and Parrot (1993) in the book entitled Persuasive Communication Campaigns which stated the stages of message processing by public and it is a useful model in research on the effectiveness of health messages. This study found that the messages have affected the informants' emotions in terms of creating fear but it does not work on giving permanent awareness thus they choose to reject the messages delivered on cigarettes packaging. As a conclusion, the displaying of visual messages has given a short-term effect but eventually it becomes a norm and not getting bothered by the message receivers. However, there are also consequences of directly displaying the visual messages to the receivers since it is an act of informing that affects emotions.*

**Keywords:** *Visual Communication, Visual Message, Health Message, smoker, cigarette.*

**Introduction**

The use of visual communication is an aggressive measure by the Ministry of Health in educating the public on the danger of smoking. Starting 2009, the Ministry of Health has ordered that cigarettes packaging should contain at least 40% of graphic that is printed on the front side and 60% on the back side as a measure to minimize the number of smokers that is almost 2.73 million people. A statistic from the Ministry of Health through its website ([www.infosihat.gov.my](http://www.infosihat.gov.my)) shows that Malaysians spend about

RM16 million a day in buying cigarettes. About RM30 million has been allocated by the government for the 'Tak Nak' Campaign of which 77% did not stop smoking while other 33% intended to quit smoking ([www.infosihat.gov.my](http://www.infosihat.gov.my)). This situation has led the government to take another stern action of not permitting individuals below the age of 18 years old to purchase cigarettes, as well as prohibiting the selling of cigarettes to them. At the same time, the government also disallows the selling of individual unit of cigarettes, making the minimal number to 14 units per package as well as increasing the selling prices of cigarettes gradually. This study is done to assess the communication effects of health messages on cigarettes packaging towards smokers.

The uses of visual communication on cigarettes packaging has been made effectively 1<sup>st</sup> June 2009 where all cigarettes packaging in Malaysian markets must compulsorily have 40 percent of graphic warnings on the front side and 60 percent on the back side. Other measures taken by the government through the Ministry of Health include increasing the selling prices of cigarettes as well as the printing of health warning and prohibiting the selling of cigarettes to under 18-year-old individuals which only managed to lessen the number of smokers by two percent as compared to Canada which managed to influence almost half the number of smokers while Thailand managed to minimize about 80 percent of smokers (Ministry of Health Malaysia, 2009).

The strategies involved in preventing smoking habits are including the implementation of regulations such as the prohibition of cigarettes selling to individuals below 18 years old, increasing cigarettes taxes or prices, and the prohibition of smoking in public areas. Educational approach is also used through continuous communication campaigns such the 'TAK NAK' slogan as well as visual communication approach. These approaches are done periodically and starting 1 January 2010, The Ministry of Health has started to implement Minimal Selling Prices for Cigarettes under the Controlling Regulations of Tobacco Products (Amend.) (Number 2) 2009 which subsequently made the selling of cigarettes at the minimum price of RM6.40 for 20 pieces. As a sign of awareness on the serious effects of smoking towards the quality of health in the country, the government drafted the Controlling Regulations of Tobacco Products 1993. The Law Reinforcement Unit of Public Health at the District's Health Offices reinforce this law nationwide. The 10 (1) Law states that all government premises, higher learning institutions, kindergartens, childcare centers, and schools are free-smoking zones. Based on this research, the problem statement was identified by analyzing the research questions in order to gain the objective of the research:

*RQ=* What is the function of visual communication in health messages delivered to smokers on the danger of smoking?

The objective of the study is to identify the inclination of smokers' responses on visual communication on cigarettes packaging. It was also conducted to identify the effectiveness of visual communication as it can be seen and remembered. Figure 1.1 shows the visuals of six chronic diseases that are shown on cigarettes packaging which is the fundamental of this study.



**Figure 1.1: Visual Examples of Chronic Diseases on Cigarettes Packaging**

### **The Uses of Visual Communication in Health Messages**

Every message is intended at educating, just like the visual messages on cigarettes packaging which must be influential for the smokers to quit smoking. The message should be processed by the public and it can be divided into a few stages including a) exposing, b) understanding and c) memorizing. In the exposing stage, it should identify how far the message/visual is seen and read. In the understanding stage, the message should be understood whether the images on the cigarettes packaging are relevant for them. In the final stage, which is the memorizing stage, the smokers must be imagining the messages displayed on the packaging every time they want to purchase cigarettes.

A study entitled *'Health warnings on tobacco packages: Summary of evidence and legal challenges'* by Hammond (2008) discovered that health warnings on cigarettes packaging are effective in visual communication as they possess high awareness impacts on non-smoking individuals and teenagers. At the same time, blurry warning texts have small impacts while huge visual warnings may enhance health knowledge and motivation to quit smoking. Visual warnings are vital in educating smokers and messages that picture clear health risks are fruitful in creating awareness among the public.

Hammond et. al. (2006) found that the awareness level of smokers on the danger and effects of smoking will only be enhanced if the messages are shown through advertisements on mass media. Meanwhile, Kamar (2009) stated that health messages delivered through cigarettes packaging is the most effective way to inform smokers on the implications of smoking habits to them. His study showed that smokers will quit from smoking after noticing the implications to their health conditions which indirectly shows that health messages through visual communication is proven to be effective in decreasing the number of smokers.

The role of health messages delivered through visual communication will also possess high impacts towards its target as the images displayed on the cigarettes packaging cause fear to the smokers. Cummings (2002) indicated that health messages on the danger of smoking are impactful towards smokers only if they are placed on the front part of the cigarettes packaging. He also highlighted that having health messages displayed in the form of visual on cigarettes packaging is the best measure in decreasing the number of smokers as compared to other means of advertisements.

Among the advantages of visual communication as mentioned by Ruitter (2005) which is the effect of smoking habit using graphic visuals on cigarettes packaging may influence smokers to quit from smoking. Hammond (2004) stated that health messages through graphic visuals on cigarettes packaging may provoke smokers' emotions to stop from smoking as it causes them to feel afraid. Heavy smokers are also found to change the cigarettes packaging by transferring the cigarettes into another container so they would not be seeing the messages displayed on the actual cigarettes packaging. This somehow shows that visual communication is highly effective as mentioned by Borland (1997) that the size of graphic visual messages on cigarettes packaging should be huge that it will possess better impacts towards smokers. Based on the findings from these scholars, it is proven that health messages are influential and should be emphasized in terms of size to provide stronger impacts.

Parker (2008) stated that health messages that are conveyed on cigarettes packaging must be understandable, clear and containing graphic visual images that display the health implications towards smokers. This is surely done right as the health messages on cigarettes packaging visualize the health messages of graphic warnings containing various chronic diseases. Selin and Hammond (2009) stated that visual communication in health messages used on cigarettes packaging can build awareness to smokers on the implications of continuous tobacco intake. They also discovered that a study conducted in Canada in 1990 found out that most smokers claimed the health messages conveyed through cigarettes packaging is the best measure to enhance awareness on the danger of smoking among them. This means the messages in the graphical forms may be seen and eventually understood by the smokers.

These studies show how visual messages influence smokers and affect them. At the same time, it does not only show that the messages sent are delivered to the receiver which is the smokers but also ascertain whether the messages are understood and remembered as well as encourage the smokers to quit smoking. Hence, it can be concluded that the form of messages that is influential and showing threats in terms of chronic diseases caused by smoking is impactful as this affects the smokers' emotions. Plus, the size of the message should also be huge enough, together with clear images will influence their emotions.

### **Awareness on the Danger of Smoking among Society**

Smoking habit among Malaysians has become a phenomenon that needs to be highlighted in order to produce a conducive environment in the country. Serious measures taken by all parties in the country are deemed important to show the drawbacks of smoking habit. In most developed countries, the rate of smoking is decreasing from year to year due to factors such as increasing level of education and awareness on health matters. They are also aware of the danger caused by smoking and have chosen to

quit smoking and not to get influenced by the habit. On the other hand, the scenario in developing countries is slightly different. The number of smokers is increasing especially among teenagers who think smoking is a way to appear trendy due to aggressive cigarette advertising by manufacturers that always look for opportunities to market their products.

Austin and Gortmaker (2001) stated that female teenagers who control their food intake to lose their weight have a higher chance of starting to smoke. This is in relation to their belief that smoking may decrease their body weight. Since female teenagers are more aware of their body weight as compared to males, their anxiety of their body weight increases the tendency for them to smoke as it is deemed as a good strategy to control their weight.

Several studies have proven that smoking habit contributes to drug addiction which is mostly started with the habit of taking weed. Gregory (2003) stated that from 1960s to 1970s, there were a lot of youths including teenagers involved in taking marijuana and eventually led them to misuse drugs. As teenagers are prone to trying everything for the sake of getting fun, it is found that smoking habit leads them to get involved with deviant attitudes especially taking drugs and alcoholic drinks. Gregory (2003) also questioned the authorities for continuing the tobacco industries for economic purpose. Hence, we should be aware that the development of tobacco industries will somehow increase the number of smokers as well as the number of drug addicts and alcoholic drinkers.

### **Message Processing Paradigm by the Public**

Langer (1978) stated that the messages came in the form of awareness are easier to be processed and studied with emotions by the receivers. It also depends on the various attitudes of the receivers especially heavy smokers who will not be influenced and always look for ways to avoid themselves from receiving such messages. Among the ways taken by them includes changing the cigarettes packaging so they will not be seeing the messages displayed on it. Hence, it can be said that the messages are effective when the targets feel emotionally threatened.

Pfau and Parrot (1993) in their book entitled *Persuasive Communication Campaigns* highlighted a few active approaches for receivers to receive a related message delivered to them. These approaches are related with the researchers' topic as it discusses how the research subjects receive a message, how they see, read, study, act or avoid messages that are displayed. Haug and Lavin (1983), and Salmon (1989) explained that campaign messages such as political, charity, commercialized products and service campaigns are used to disseminate and deliver information to public where the biggest delivery medium at that time was televisions which later printed media was started to be utilized, aligned with the development of technology that keeps evolving.

### **Conceptual Framework**

This research is adopted the message processing paradigm by the public which assumes a few factors that affect the activeness of information processing, information inequalities and contradicting and variables of receivers, messages, sources, and channels that influence information processing. This paradigm highlights on how public is exposed to messages, the activeness of information processing, channels, and the influence of the messages.

Based on the research problem, the conceptual framework measures the effects of printed visual messages displaying chronic diseases on cigarettes packaging towards smokers. The effects of those

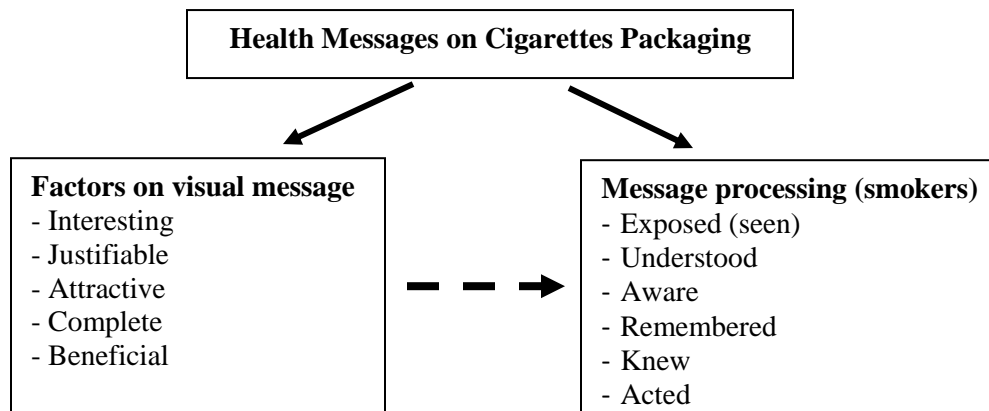
messages depend on the message's factors which are declining and accepting such as feeling fearsome, rejections, knowing and making actions. This study is aimed to see the factors that are present in the visual messages in influencing smokers. The paradigm of this research problem is adapted from two message processing factors by the public which are Visual Communication and Images with messages (Lester, 1999):

*i.) Pulling factors*

It is known as the features in the message that hinder one from processing the message. This factor is present in an individual such as his or her involvement in the related issues or messages that are delivered; for instance, if he or she is a diabetic patient, he or she will expose his or her conditions to others because he or she is involved with it. This factor is related with the individual's self on issues pertaining to his/her personal, families and personalities; it is differed by the exposure level received by the individual.

*ii.) Pushing factors*

Interesting factors found in the message that influence an individual in processing messages. The message should be intriguing especially in the aspects of images, colors, proof, justification and must be attractive. While, the entertaining pushing factors are used to influence receivers and the message should be complete and beneficial. At the same time, it must also be up-to-date as the previous message did not display the diseases in a clear and specific way. All these features play important role in attracting receivers to pay attention towards the message delivered.



**Figure 2.1 Conceptual Framework**

### Methodology

This research is carried out with a qualitative approach which is done through focused-group discussions by adopting the instruments developed by Boree (2005) to identify the level of acceptance of visual messages, whether it is effective enough to influence the smokers. Two focused groups containing five members each were involved in attaining their opinions and responses on visual messages. The research sample was the heavy smokers who purchase and smoke cigarettes. The selection of research subject was based on demographic factors and smoking habits as follows; i.) when they started smoking, ii.) type of cigarettes, and iii.) frequency of smoking.

Students and staff from Universiti Teknologi MARA Melaka Branch (Alor Gajah Campus) were selected as the samples of this research. This location was selected as it is an institution that comprises students who are mostly teenagers as well as staff coming from various age groups and genders. These groups of individuals are potentials smokers as there are a huge number of smokers among them. In terms of the demographic factors, UiTM staff and students are mostly coming from different states and backgrounds and there are about 6,000 individual in the campus making it easier for the researchers to select the sample for this research.

They came from various age groups and genders. The selection of sample was done based on the research subject which was among the smokers. The sample consisted of 10 informants which were grouped into two small groups. The first group comprised of the male and female staff aged between 27 to 52 years old while the other group consisted of male and female students aged between 18 to 25 years old.

A research instrument in the form of group discussion questions were developed which focused on five staffs and five students from Universiti Teknologi MARA Melaka Branch (Alor Gajah Campus) that were divided into groups of five respectively. The data collected from the research was analyzed manually using inductive-thematic analysis.

## Findings

### *Perception of the functions of visual communication in health messages delivered to smokers on the danger of smoking*

The researchers found that all the 10 informants who were eight males and two females aged between 18 to 52 were smokers. Seven of the informants have been smoking for five years to 20 years while another three informants have been smoking for less than four years. Eight of the informants' smoke about 10 to 20 cigarettes per day while two of the informants' smoke less than 10 cigarettes daily. These facts strengthen our research as they were classified as heavy smokers and average smokers which were the subjects of this study as well as the receivers of health messages displayed on the cigarettes packaging.

It can be concluded that only nine informants were aware that the use of images of chronic diseases on cigarettes packaging is to educate the society on the consequences of smoking. The responses as follow;

The sixth informant stressed that health messages displayed are generally meant to the public on the danger of smoking.

*“The images of chronic diseases displayed on cigarettes packaging are to inform the public on diseases related to smoking and consequences that will happen to our health if we smoke. Visual messages on cigarettes packaging may cause some fear among smokers until they stop smoking. For me, I still smoke but every time I smoke I will see those images lingering on my mind.”*

The ninth informant also gave almost the same opinions as the sixth informant but he was more influenced by health messages displayed.

*“The images displayed are aimed at giving awareness to Malaysians that cigarettes are dangerous to our health but there are still smokers. Some are influenced and stop smoking. As for me, I smoke less cigarettes these days. I admit that the images influence me but another reason for doing so is because of its expensive price. RM10 per box is already expensive for me. Those images also frighten me out and*

---

*sometimes I feel like quitting smoking. Now, I have lessened my expenses on cigarettes, maybe just a little but I am still smoking.”*

These general opinions are different from the effects of visual messages displayed to them when five informants mentioned that the messages did not give any effect to them and they still smoke as usual. The third informant said that smokers have their own ways to avoid themselves from seeing the images displayed on cigarettes packaging.

*“For the purpose of giving messages and awareness to smokers, this may be right measure taken by the government to lessen smoking habit. In my opinion, visual messages on cigarettes packaging may give some effects but eventually it will not be effective anymore because there are smokers who purchase smuggled cigarettes because they don’t display these images. I still buy cigarettes but I don’t really see the box or choose a box that shows less impacts. Initially I tore the images but now I don’t bother about it anymore.”*

The fifth informant admitted that he was influenced by the visual messages displayed.

*“For me, this is done to give awareness to smokers on the danger of smoking. At first, I didn’t look at those images but after some time it becomes meaningless. To be honest, I try to smoke less and one of the reasons is those images as I am worried that I will get those diseases.”*

Based on the study, the researchers found that the message process has affected the informants’ emotions. Nonetheless, their fearsome feeling is only temporary where most informants are heavy smokers who decline any impacts coming from the messages displayed. The informants expressed a few feelings related to the messages where most of them felt afraid while some did not feel it; in total, the overall message delivered did not manage to cause them to quit smoking. Based on the interview conducted, the researchers classified two groups of message recipients of which one group reads the whole message and understands it while the other group attempts to avoid themselves from receiving any related messages as they assumed those messages are unimportant. As a whole, the display of visual messages creates short-term impacts before it finally becomes a norm which is not bothered by smokers. At the same time, there are still smokers who are affected by the messages where they will keep imagining the images every time they smoke as the images are in the form of threatening notification that affects them emotionally.

## **Conclusion and Suggestion**

In conclusion, the researchers discovered that almost all informants could understand the visual message which is the use of images in giving awareness to the society on the effects of smoking. The impacts of messages are different from their understanding of visual messages which is shown when five informants did not get affected by the messages where they still smoke without any intention to quit from it while two informants felt angry and threatened by the messages. At the same time, two informants stated that they will continue smoking but in a less frequent habit as they remember the visual messages, and one informant will also continue smoking but with less frequency.

The display of visual messages containing chronic diseases on cigarettes packaging did show some impactful effects in the beginning, but active smokers always find ways to smuggle cigarettes with the help from irresponsible individuals. Smuggled cigarettes are old cheaper and do not display the visuals of chronic diseases and this somehow provides options for smokers to purchase them. Inefficiency in implementations has also increased the availability of smuggled cigarettes nationwide. The government must be stern in controlling the smuggling activities as this may cause serious effects to the country. There is also a trend of manufacturing cigarettes containers which allow smokers to lift the cigarettes



from the original packaging into the container. This portrays the effectiveness of chronic diseases imprinted on cigarettes packaging which has caused smokers to feel fearsome and threatened every time they want to purchase cigarettes, or they will lift the cigarettes into another container. This can be avoided by eradicating and seizing any premises that sell smuggled cigarettes or replacement cigarettes containers under the Commerce Act.

Suggestions made through various anti-smoking, awareness and implementation campaigns have shown very minimal effects of which smokers are portrayed as unhealthy, weak, risky, unhygienic, and infectious and should not be approached by public. This can be done by conducting aggressive campaigns throughout the country through collaborations with mass media in order to educate the society to educate smokers which will eventually cause them to quit smoking.

## References

- [1] Anwar Husin, Ramai wanita merokok mahu kuruskan badan. Retrieved on January 25<sup>th</sup>, 2010, from <http://www.bharian.com.my/bharian/articles/>, 2008.
- [2] Austin, S. B., & Gortmaker, S. L., Dieting and smoking initiation in early adolescent girls and boys: A prospective study. *American Journal of Public Health*, 91(3), 446 – 449, 2001.
- [3] Bandura A., Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review* 84:191-215, 1977.
- [4] Baxter, L.A. & Babbie, E., *The basic of communication research*. Boston: Wadsworth Publishing Co, 2003.
- [5] Boeree, C. G., *Qualitative methods*, 2005. Retrieved on **January 24<sup>th</sup>, 2010, from** <http://webpace.ship.edu/cgboer/genpsyqualmeth.html>.
- [6] Borland R, Hill D., Initial impact of the new Australian tobacco health warnings on knowledge and beliefs. *Tob Control* 1997; 6: 317-325, 1997.
- [7] Chandra, A., Four million Malaysians addicted to smoking, 21st July 2010, *The Star Online*.
- [8] Cigarette.com, History of cigarette smoking and lung cancer, 1990. Retrieved on January 26<sup>th</sup>, 2010, from <http://www.smokinglungs.com/cighist.htm>.
- [9] Eckert, P., Beyond the statistics of adolescent smoking. Retrieved on January 21<sup>st</sup>, 2010, from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1650780>, 1983.
- [10] Edwards, J. A., & Warburton, D. M., Smoking, nicotine and electrocortical activity. *Pharmacology and Therapeutics*, 19, 147-164, 1983.
- [11] Edwards, J. A., Wesnes, K., Warburton, D. M., & Gale, A., Evidence of more rapid stimulus evaluation following cigarette smoking. *Addictive Behaviors*, 10, 113-126, 1985.
- [12] Elliott & Shanahan, Developmental research for new Australian health warnings on tobacco products stage 2. Prepared for: The Australian Population Health Division Department of Health and Ageing. Commonwealth of Australia, August 2003.
- [13] Gregory, R. J., Reflections of the drug scene. *Drugs: Education, Prevention and Policy*, 10(1), 1-5, 2003.
- [14] Hafizah Iszahanid, Risiko mati awal, 2009. Retrieved on January 21<sup>st</sup>, 2010, from [http://www.bharian.com.my/Current\\_News/BH/Sunday/Sihat/20091108100254/Article/](http://www.bharian.com.my/Current_News/BH/Sunday/Sihat/20091108100254/Article/)
- [15] Haizal Haron Kamar, Why smokers just can't stop tobacco. *Malay Mail*, 1<sup>st</sup> June 2009.
- [16] Hammond, D., *Health warnings on tobacco packages: summary of evidence And legal challenges*. University of Waterloo, 2008.
- [17] Hammond D, Fong GT, Borland R, Cummings KM, McNeill A, Driezen P., Text and graphic warnings on cigarette packages: Findings from the ITC four country survey. *Am J Prev Med*; 32 (3): 202–209, 2007.

- [18] Hammond D, Fong GT, Borland R, McNeill A, Cummings KM, Hastings G., Effectiveness of cigarette warning labels in informing smokers about the risks of smoking: findings from the International Tobacco Control (ITC) Four Country Survey. *Tobacco Control*;15(Suppl III): iii19–iii 25, 2006.
- [19] Hammond D, Fong GT, McDonald P, Brown, KS, Cameron R., Graphic Canadian warning labels and adverse outcomes: evidence from Canadian smokers. *Public Health*; 94 (8): 1442-45, 2004.
- [20] Haug MR, Lavin B., *Physician and patient; Power (Social sciences); Consumers; Consumer participation; Consumer advocacy.* Sage Publication, 1983.
- [21] Hecker, S. Stewart's, D.W., *Nonverbal Communication in Advertising.* 2nd Edition, 1988.
- [22] Irfan Mohammad, *Wartakan segera fatwa haram merokok.* Utusan Malaysia, 3 Nov 2009. pp. 11.
- [23] Janz, Becker, Rosenstock. 1974. *Effective health risk messages, A step by step guide.* Sage Publications, 1984.
- [24] Kementerian Kesihatan Malaysia, *Bahagian Pendidikan Kesihatan.* [www.infosihat.gov](http://www.infosihat.gov), 2005.
- [25] Krejcie, R. V. & Morgan, D.W., *Educational and psychological measurement.* Danville, IL: Interstate Printers and Publisher, 1970.
- [26] Krugman, D. M., *Do adolescents attend to warnings in cigarette advertising?* 1994. Retrieved on January 21<sup>st</sup> 2010, from <http://proquest.umi.com/pqdweb>
- [27] Langer, S. K., *Philosophy in a New Key.* Cambridge: Harvard University Press, 1960.
- [28] Leigh, J. P., *Smoking, self-selection and Absenteeism.* Retrieved on February 14<sup>th</sup>, 2010, from [http://papers.ssrn.com/so13/papers.cfm?abstract\\_id=7098](http://papers.ssrn.com/so13/papers.cfm?abstract_id=7098), 1986.
- [29] Lester, P. M., *Syntactic theory of visual communication,* 2006. Retrieved on January 24<sup>th</sup> 2010 from <http://commfaculty.fullerton.edu/lester/writings/>
- [30] Lester, P. M., *Visual communication; Images with messages (2<sup>nd</sup> ed).* Wadsworth, 2000.
- [31] *Modul Berhenti Merokok. Panduan berhenti merokok.* Bahagian Pendidikan Kesihatan, Kementerian Kesihatan Malaysia, 2001.
- [32] Norliza, A.R., *Harga minimum sekotak RM6.40.* Utusan Malaysia, 29 Dis 2009. m.s.8.
- [33] Parker JR, Hammond D, Sirirassamee B, Omar M, Fong GT, Borland R., *Exposure to antismoking information among Thai and Malaysian Youth: findings from the ITC south-east Asia survey.* 1997. Presented at: Society for Research on Nicotine and Tobacco, Portland, OR, February 2008.
- [34] Pfau, M. Parrot, R., *Persuasive communication campaigns.* Augustana College, University of Georgia, 1993.
- [35] Raute, L.J. Pednekar, M.S. Gupta, P.C, *Pictorial health warnings on cigarette packs: A population based study findings from India.* Healix Sekhsaria Institute for Public Health, 2000.
- [36] Reinard, J. C., *Introduction to Communication Research (3rd ed).* McGraw Hill, 2001.
- [37] Rosalinda Md Said, *Harga rokok mungkin RM50.* Retrieved on January 21st, 2010, from <http://www.utusan.com.my/utusan/info>, 2010.
- [38] Rosenstock, I. M., *The health belief model and preventive health behavior.* *Health Education Monograph.*, 2, 354-386, 1974.
- [39] Ruiter, R.A.C., & Kok, G., *Saying is not (always) doing: Cigarette warning labels are useless.* *European Journal of Public Health*, 15, 329, 2005.
- [40] Rusted, J. M., & Warburton, D. M., *Facilitation of memory by post-trial administration of nicotine: Evidence for an attentional explanation.* *Psychopharmacology*, 108, 452-455, 1992.
- [41] Salmon, C. T., *Bridging theory "of" and theory "for" communication campaigns: an essay on ideology and public policy.* *Communication Yearbook 15.* Newbury Park, Calif., Sage: 346-357, 1991.
- [42] Salmon, Charles T., *Information campaigns: balancing social values and social change in: sage annual reviews of communication research, Volume 18.* Newbury Park: Sage Publications, 1989.
- [43] Skinner WF, Krohn MD., *Age, and gender differences in a social process model of adolescent cigarette use.* *Sociological Inquiry.* ;62(1):56, 1990.

- 
- [44] Sufean Russin Mariani Md Nor, Dasar warga sihat: isu psikologi faktor remaja sekolah merokok. Jurnal Pendidikan. Universiti Malaya, 2004.
- [45] Warburton, D. M., Rusted, J. M., & Muller, C, Patterns of facilitation of memory by nicotine. Behavioural Pharmacology, 3, 375-378, 1992.
- [46] Warburton, D. M., & Wesnes, K., Individual differences in smoking and attentional performance. In R. E. Thornton (Eds.), Smoking behaviour: Physiological and psychological influences (pp. 19-43). London: Churchill-Livingston, 1978.
- [47] Wendt, J. K., The languages of pictures: An epidemiological review. Journal of Substance Abuse, 3, 187-204, 1995.
- [48] Werthimer, M, Visual communication; images with messages (2nd ed). Wadsworth, 2000.
- [49] Witte, K, Meyer G, Martell D., Effective health risk messages: a step-by-step guide. Sage Publications, 2001.
- [50] World Health Organization., Programmes and projects, tobacco free initiative (tfi), who report on the global tobacco epidemic, the power package. [http://www.who.int/tobacco/mpower/tobacco\\_facts/en/index.html](http://www.who.int/tobacco/mpower/tobacco_facts/en/index.html), 2008.