# sTUDY OF PUBLIC AWARENESS OF SCIENCE AND TECHNOLOGY MALAYSIA, 2000 

Sponsored by:
MALAYSIAN SCIENCE AND TECHNOLOGY INFORMATION CENTRE (MASTIC)

MINISTRY OF SCIENCE, TECHNOLOGY AND THE ENVIRONMENT, MALAYSIA

With the Co-operation of:
UNIVERSITI TEKNOLOGI MARA
SHAH ALAM

MAY 2000
$\square$

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## JUNE 2000

Assalamulaikum wbt and Greetings,
My name is $\qquad$ This is my letter of idenfffication. We are conducting a study of PUBLIC AWARENES5 OF SCIENCE AND TECHNOLOGY 2000. It is hoped that this study will identify public attitudes to and understanding of Science and Technology. The results of this study will play a very important part in the effort to achieve the aim of making this country an industrialized one by 2020. These results will be used in national development planning. You have been selected through scientific means to help with this study. All data that we get from you will be used only for this study and all information will be kept confidential. I have a few questions to ask you and this interview is estimated to take about 25 minutes.
Shall we begin?

Respondent's Name:
Respondent's Address:

Telephone Number:

Series


## A. SCIENCE AND TECHNOLOGY ISSUES

1. For every issue below state your level of knowledge and level of interest according to the following scale:
```
Level of knowledge code
1-Don't know 2 - A Little 3-Fair 4-In-depth Level of interest code
1-Don't know 2 - A Little 3-Fair 4-In-depth.
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a. Intemational policy and foreign countries (e.g. the Non-Aligned Movement Policy)
b. National Education Policy
c. New discoveries in the field of science (e.g. cloning)
d. New discoveries in the field of medicine
e. New inventions and technology
f. New inventions in Malaysia
g. Applications of computer technology
h. Economics and trade
i. Use of nuclear technology to generate power (e.g. electricity)
j. Space Exploration
k. Environmental Pollution (e.g. the burning of forests that causes haze)

## B. MEDIA

## NEWSPAPERS

2a. Do you read newspapers?
O Yes O No (please go to Question 3a)


2b. If Yes, how often do you normally read newspapers?
O Every day
O A few times a week
O Once a week
O Very Seldom
2c Mark three local sections and three foreign ones that you are most interested in in order of preference (i.e. First, Second and Third ).

|  | Local |  |  | Foreign |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ |
| 1. Politics | O | O | O | O | O | O |
| 2. Business/Economics | O | O | O | O | O | O |
| 3. Sports | O | O | O | O | O | O |
| 4. Entertainment | O | O | O | O | O | O |
| 5. Science and Technology | O | O | O | O | O | O |
| 6. Others | O | O | O | O | O | O |

## MAGAZINES

3a Do you read magazines?

1. Non-scientific magazines
2. Scientific magazines

| Often | Seldom | Never |
| :---: | :---: | :---: |
| O | O | O |
| O | O | O |

(If Often, please go to Question 3b)
(If Seldom or Never, please go to Question 4a)
3b If you often read magazines/publications, give the name/s of the magazine/s that you often read in the last three months.

1. Non-scientific magazines: $\qquad$
$\square$
2. Scientific magazines: $\qquad$
$\square$


## TELEVISION

4a Do you watch TV?
O Yes O No (go to Question 5a)

4b If Yes, state three kinds of local programmes and three kinds of foreign ones that you most often watch, in order of frequency (i.e. First, Second and Third).

|  | Local |  |  | Foreign |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 | 1 | 2 | 3 |
| 1. News | O | O | O | O | O | O |
| 2. Documentaries | O | O | O | O | O | O |
| (Name____ |  |  |  |  |  |  |
| 3. Entertainment (Name $\qquad$ | O | O | O | O | O | O |
| 4. Sports | O | O | O | O | O | O |
| 5. Religious Programmes | O | O | O | O | O | O |
| 6. Others | O | O | O | O | O | O |
| (State |  |  |  |  |  |  |

4c How many hours a day do you usually spend watching TV?
$\mathrm{O}<1$ hour
O 1 -<2hours
O 2-<3hours
O 3-<4hours (State $\qquad$


## RADIO

5a Do you listen to the radio?
O Yes
O No (please go to Question 6a)
$5 b$ If Yes, state the kind of radio programme that you most often listen to:

1. Entertainment O
2. News

O
3. Religious programmes

O
4. General Knowledge

O
5. Sports

O
6. Others

O
(State $\qquad$
$\square$
5c How many hours do you usually spend listening to the radio in a day?
$\mathrm{O}<1$ hour
O $1-<2$ hours
O $2-<3$ hours
O $3-<4$ hours
O $>4$ hours (State $\qquad$ _)
$\square$

## NEW MEDIA

6a Do you use the following facilities?

1. Internet
O Yes
O No
2. E-mail
O Yes
O No
3. IRC
O Yes
O No
[If the above are NOT applicable to you, please go to Question 7)
6b If your answers to 6a are Yes, how often do you use the facilities?
4. Everyday
5. A few times a week

| Internet | E-mail | IRC |
| :---: | :---: | :---: |
| O | O | O |
| O | O | O |
| O | O | O |
| O | O | O |

6c Where do you normally use them?

|  | Internet | E-mail | IRC |
| :--- | :---: | :---: | :---: |
| 1. Office | O | O | O |
| 2. School | O | O | O |
| 3. University/College | O | O | O |
| 4. Home | O | O | O |
| 5. Cyber Cafe | O | O | O |
| 6. Others |  |  |  |
| $\quad$ State |  |  |  |

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7. If you have answered that you read, watch, listen to and/or use the relevant media, what is the level of your belief in the truth of the information regarding Science and Technology disseminated by those mass media?

| 0 | 1 | 2 | 3 | 4 |
| :---: | :---: | :---: | :---: | :---: |
| Don't Believe |  | Partly Believe |  | Believe |


| a. Newspapers | O | O | O | O |
| :--- | :--- | :--- | :--- | :--- |
| b. Magazines | O | O | O | O |
| c. Scientific Magazines | O | O | O | O |
| d.TV | O | O | O | O |
| e. Radio | O | O | O | O |
| f. Intemet | O | O | O | O |

## C. VISITS / EXHIBITIONS

8. In the last year, how many times have you visited the following places?

|  | 1 | 2 | 3 | 4 | $>4$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| a. Museums |  |  |  |  |  |
| b. Zoos | O | O | O | O | O |
| c. Aquariums | O | O | O | O | O |
| d. Science Centre | O | O | O | O | O |
| e. Planetarium | O | O | O | O | O |
| f. Petrosains | O | O | O | O | O |
|  | O | O | O | O | O |

9. In the last year, how many times have you visited the following exhibitions?
a. Higher Education
b. Information Technology(1T)
O O
O O
O
O
c. Science \& Technology
(not including IT)
d. Art
e. Books
f. Others
O
O
O
O
(State $\qquad$

1
2
3
4
$<4$


## D. KNOWLEDGE OF S \& T

10. Have you ever read or heard about the following issues? If you have read or heard about the following terms or issues, state the level of your understanding of those terms or issues.
(If your answer is No, please go to Question 13 )

| 2. A little | 3. Fair | 4. Good |  |  |  |
| :--- | :---: | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |
|  | 1 | 2 | 3 | 4 |  |
|  |  |  |  |  |  |
| 1. Acid rain | O | O | O | O |  |
| 2. Hole in the ozone layer | O | O | O | O |  |
| 3. Air Pollution | O | O | O | O |  |
| 4. Global Warming | O | O | O | O |  |
| 5. Greenhouse effect | O | O | O | O |  |

11. For each Good answer to Question 10 above, state whether the following statements are True or False:
12. Not Sure 1. False 2. True
a. Acid rain destroys forests.
O
$0 \quad \mathrm{O}$
b. The hole in the ozone layer can cause skin cancer.
O O
O
c. The use of LPG by motor vehicles can lessen air pollution.
O
O
O
d. Sea levels can fall as a result of global warming.
$\begin{array}{lll}0 & O & O\end{array}$
e. The greenhouse effect can cause an increase in sea levels.
O
O
O
13. Scientists have reported that 'the ozone layer has become thinner.' This is usually eferred to as a 'hole' in the ozone layer. Do you know where this 'hole' is?

O Yes (State where $\qquad$ ) $\square$
O No

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13. What do you think of the following statements ?
0. Not Sure 1. Don't Agree 2. Agree
a. Science and technology make our lives easier,

| 0 | 1 | 2 |
| :--- | :--- | :--- |

more healthy and more comfortable.
$\mathrm{O} \quad \mathrm{O} \quad \mathrm{O}$
b. The quality of science and mathematics education in school is not satisfactory.
$\mathrm{O} \quad \mathrm{O} \quad \mathrm{O}$
c. The use of computers and automation will increase job opportunities in factories.

O $\quad \mathrm{O}$
O
d. We depend too much on science, and not enough on religious faith.
$\mathrm{O} \quad \mathrm{O}$
O
e. Although scientific research does not produce immediate benefits, it is necessary in order to increase knowledge. The government should therefore support it.
$\mathrm{O} \quad \mathrm{O} \quad \mathrm{O}$
f. Scientists ought to be given permission to conduct research that causes suffering to animals such as dogs and monkeys, if such research produces new findings for human health.
$0 \quad \mathrm{O} \quad \mathrm{O}$
g. We don't really need to know anything about science in our daily lives.

O O O
h. Science causes our lifestyles to change too rapidly.
$\mathrm{O} \quad \mathrm{O} \quad \mathrm{O}$
i. Most scientists work in order to make human life more comfortable.
$\mathrm{O} \quad \mathrm{O}$
O
j. Daily work becomes more attractive with the use of science and new technology.
$\mathrm{O} \quad \mathrm{O}$
k. If the development of science and technology produces harmful results, there are bound to be new discoveries to counteract them.
$\mathrm{O} \quad \mathrm{O} \quad \mathrm{O}$

14a Do you know about the Multimedia Super-Corridor (MSC) project?

## O Yes O No (please go to Question 15)

14b If Yes, please name one of the flagships of the Multimedia Super-Corridor (MSC).

## E. BENEFITS AND HARM OF SCIENCE

15. Scientific research can cause positive or negative effects. What is your opinion?

O The good effects exceed the bad ones
O They are about equal
O The bad effects exceed the good ones

16. Please state the effects of $\mathrm{S} \& \mathrm{~T}$ on the following:
0 . Negative effects

1. No effect
2. Positive effects
$0 \quad 1 \quad 2$
a. Standard of living
(e.g. Better conditions of life)
$\mathrm{O} \quad \mathrm{O}$
b. Working Conditions
(e.g. Makesworkeasier)

O O O
c. Public Health
(e.g. Higher life expectancy)

O O O
d. World Peace

O
O
O
e. Cost of living
$\mathrm{O} \quad \mathrm{O}$
O
f. The Environment
$\mathrm{O} \quad \mathrm{O}$
O
g. Individual enjoyment of life

O O
O

17a. Have you ever heard of genetic engineering or cloning ?
O Yes
O No (Please go to Question 18)

17b. If Yes, please give one example of the above:


17c. If you have heard of genetic engineering or cloning, do you agree that they should be practised?
O Yes
O No
O Not Sure

17d. If Yes or No, please give reasons:
$\qquad$
$\square$
18. In your opinion, what is the relationship between Malaysian economic growth and scientific research?

O None at all

O A slight connection

O A strong connection

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19. Give your opinion on the efforts that have been made by the government in the following matters:
0. Not sure 1. Not enough 2. Enough 3. More than enough

| a. Support for the space industry | O | O | O | O |
| :--- | :--- | :--- | :--- | :--- |
| b. Decreasing pollution | O | O | O | O |
| c. Improving the level of public health |  |  |  |  |
| (e.g. building more hospitals) | O | O | O | O |
| d. Support for scientific research <br> e. Improving the level of education <br> (e.g.training moreteachers) <br> f. Strengthening national defence <br> (e.g. buying more military equipment) | O | O | O | O |
|  | O | O | O | O |
|  | O | O | O | O |

## F. PUBLIC UNDERSTANDING OF S\&T

20. State whether each of the following statements is True or False.
21. Not Sure
22. False
23. True
a. The centre of the earth is very hot.

| O | O | O |
| :--- | :--- | :--- |
| O | O | O |
| O | O | O |

c. The oxygen we use for breathing is produced by plants.

O O
O
d. The father's genes determine whether a foetus will be born a girl or a boy.
$0 \quad 0 \quad 0$
e. Lasers function by combining sound waves.

O O O
f. Electrons are smaller than atoms.
9. Antibiotics kill not only viruses, but also bacteria.

O
O
h. The earth began with a very big explosion.

O
O
i. The continent we are on has changed its location in the last few million years and will continue to move in future.
$0 \quad 0 \quad 0$
j. Man as we know him today originated from an earlier animal species.

O O O
k. Smoking causes lung cancer.

O O O
I. The first men lived at the same time as dinosaurs.

O O
O
m . Milk that is contaminated by radioactivity will be safe to drink after boiling.
n . The earth goes round the sun.

| O | O | O |
| :--- | :--- | :--- |
| O | O | O |


21. Which travels more quickly, light or sound?

O Not sure
O Light
O Sound
O Both travel at the same rate
22. How long does the earth take to go round the sun?

O Notsure
O 1 day
O 1 month
O 1 year
O None of the above (State $\qquad$ _)

## G. PARTICIPATION IN S\&T POLICY

23a. Do you know the Govemment Education Policy regarding S\&T ?
O Not sure (Please go to Question 24a)
O No (Please go to Question 24a)
O Yes

23b. If Yes, state the Policy:
$\qquad$
$\square$
24a. Are you participating in the steps taken by the government to increase the public level of awareness of S\&T?
O Not sure ( Please go to Question 24f)
O No (Please go to Question 24f)
O Yes

24b. If Yes, please state one of the above steps?


24 c . What is your opinion regarding the effectiveness of these steps?
O Not effective
O Fairly effective
O Effective


24d. Give the reason $/ \mathrm{s}$ for your opinion.
$\qquad$
$\square$
24e. What is the public level of awareness of $\mathrm{S} \& \mathrm{~T}$ after the steps taken by the government ?
O Increased a lot
O Increase a little
O Hasnotchanged
O Not sure
24f. Please give one suggestion for further increasing the public level of awareness of $\mathrm{S} \& \mathrm{~T}$.
$\qquad$
$\square$
H. DEMOGRAPHIC PROFILE OF RESPONDENTS
25. Area of residence
O Town
O Rural area
26. Ethnic group

O Malay
O Melanau
O Iban
O Bidayuh
O Kadazan
O Aborigine
O Other bumiputera group (state $\qquad$
O Chinese
O Indian
O Others (state $\qquad$
27. Age Category

O 12-14
O 15-20
O 21-60
28. Gender

O Male O Female

29. What is the level of your education?

O Never went to school
O Did not complete primary school
O Completed primary school
O Form 3 (SRP/LCE/PMR) and below
O Form 5 (OSC SPM MCE) and below
O Completed vocational training
O Completed Form 6 (STPM/HSC) or matriculation
O Diploma
O Bachelor's Degree and above
O Others (State $\qquad$ )
30. What stream were you in while in Secondary school ?

O Arts
O Commerce
O Science
O Religious
O Others (State $\qquad$ )
31. If you are a student, what field would you like to go into in future ?

O Scientific O Non-scientific
Give your reason/s: $\qquad$

32a. State your employment status:
O Employed O Notemployed

32b. If you are not employed, state whether you are:
O A full-time student
O Retired
O Looking for a job
O Not interested in a job
O A housewife
O Others (State $\qquad$ )
$\square$
33. State your monthly income:

O Less than RM500
O RM500 - < RM1000
O RM1000 - < RM2000
O RM2000 - < RM3000
O RM3000 - < RM4000
O RM4000 - < RM5000
O RM5000 or more
34. In which sector are you employed ?

O Govemment
O Private
O Statutory Body
O Self-employed
O Others (state $\qquad$ _)

## THANK YOU FOR YOUR COOPERATION

