



National Science Fair for Young Children Report 2010

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**National Science Fair for Young Children
2010 Report**

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1

INTRODUCTION

1.1 SUMMARY

Science is best learnt by experimenting and reasoning, instead of just reading and remembering. Students of science, especially the young, should be encouraged to learn science by doing science projects that bring 'to live' underlying scientific concepts.

Recognising this need, a group of community based non-profit organisations developed the Science Fair for Young Children (SFYC) an annual event that has been spurring primary school children to enjoy the joy of science since 2007. SFYC is organised jointly with Tamil Schools at local, state and national levels, with over 5,000 children participating in the event every year.

SFYC 2010 is a collaborative effort by the Malaysian Indian Science Intellectuals (MISI), Malaysian Tamil Educational Research and Development Foundation (Tamil Foundation), Putera MIC, Tamil Schools Headmasters' Council, and the Development of Human Recourses for Rural Areas (DHRAA) Malaysia. SFYC is funded by the Malaysian Community & Education Foundation (MCEF) and ECM Libra Foundation. Astro's Vaanavil channel will be the official broadcaster for the event. Each of these organisations will hold a different integral role to run this programme successfully.

This year, a total of 263 schools nationwide took part in this fair staged at 9 zone level. The national-level fair was held from June 4-6 at AIMST University in Kedah. The total expenses for organising the zone level and national level science fairs amounted to RM276,488.15.

1.2 BACKGROUND

SFYC traces its origin to the Young Scientific Explorers (YSE) that was initiated in 2004 involving 360 students from 10 schools in Kuala Lumpur and Selangor. YSE sought to introduce science to young people in a fun way using everyday items. It was conducted by the participating schools which displayed 8 simple experiments, followed by a visit to the National Science Centre. YSE proved to be a success, and in 2006 the programme benefited 2,094 students.

Having seen the benefits of 'hands-on' and 'fun' science, SFYC was set up by the MCEF Centre for Community Initiatives (MCEF-CCI) at a pilot level in 2007.



Science Fairs are ideal in accomplishing just that by giving students an opportunity to learn a scientific topic or concept in greater depth, while simultaneously allowing them to:-

- Use scientific methods to develop an understanding of controls and variables;
- Take an open and creative approach to problem solving;
- Sharpen their writing skills, ability to work in team, and ability to plan and execute tasks;
- Develop public speaking skills as they present projects to schoolmates and judges
- Complete and be recognized for academic achievement: the judging process also provides students with the invaluable experience of developing poise and thinking on their feet.

It was implemented with the help of Tamil Foundation and Selangor Tamil School Headmasters Council at Dewan Tunku Cancellor, University of Malaya, where 49 teams from 44 schools across Federal Territory and Selangor took part.

We were surprised to see the participating students bringing science to life as they tackled investigative questions through hands-on experiments, developing and demonstrating their interests and strengths in science. We also noticed an increase in confidence among the participating students.

Seeing the positive response of SFYC in 2007, we expanded SFYC nationwide. At the SFYC 2008 6 events were held at 6 zones across the country with 197 teams from 180 schools taking part. The top 60 schools from these zones were then chosen to compete in the grand finals on June 14 -15 which was held at the National Science Centre in Bukit Kiara.

Last year the fair attracted a total of 207 teams from 188 schools, which was slightly higher than 2008. Of these 207 teams, 60 winning teams were selected for the National Level Science Fair held at the Kelab Kilat (TNB Hall) in Bangsar, Kuala Lumpur. The fair was a roaring success ... and the feeling was electrifying ... literally! It gave us the utmost satisfaction to see the children with so much of enthusiasm and exuberance, being fully committed to their science projects. With that under our belt, we embarked on SFYC 2010.

1.3 OBJECTIVES OF SFYC 2010

- To review and improve resource materials – the 'SFYC Folder'- provided to students, teachers and coordinators of SFYC; to add new science projects to the sample projects already available.
- To train science teachers from estimated 250 schools on 'hands-on' science, science projects and ultimately organising school-level science fairs.
- To empower local coordinators and organise nine State Level Science Fair.
- To organise a national level science fair for the best 60 science projects.

1.4 METHODOLOGY

For SFYC 2010, we revised the handbook based on the feedback we had obtained from participants of SFYC 2008 and 2009. We also increased the number of sample projects and chose more innovative projects. The SFYC 2010 Handbook was compiled as a folder in a CD format and was sent to all the states through the respective coordinators in each state. For last year and again this year, we had encouraged school level science fairs by providing a small seed funding of RM300 to each school if requested.



SFYC 2010 Milestones (October 2009 – October 2010):

ITEM	TIME FRAME
Review & upgrade of SFYC Folder	Oct. - Dec. 2009
Identify NGO partners and state coordinators	Oct. - Dec. 2009
Form SFYC 2010 Working Group	Dec. 2009
Develop a detailed implementation plan for SFYC 2010	Dec. 2009
Finalise SFYC 2010 Folder	Jan. 2010
Train local partners on conducting state-level fairs	Jan. 2010
Train school teachers & facilitators on SFYC	March 2010
Visit schools to observe and guide teams as needed	April 2010
State-level SFYC 2010	May 2010
National SFYC 2010	June 2010
Post-mortem of SFYC 2010	July 2010
SFYC 2010 final report preparation	Aug. - Oct. 2010



2

IMPLEMENTATION

The participation of schools in SFYC is increasing year by year which shows the impact and support given by schools to this programme. The details of participation by schools in the last two years are shown below:

Zone	State(s)	Total Schools		Total Teams	
		2008	2009	2008	2009
1	Kedah, Penang, Perlis	28	28	31	32
2	Perak	18	15	21	18
3	Selangor, W. Persekutuan	58	74	58	74
4	Malacca, Negeri Sembilan	4	3	4	3
5	Johor	57	54	64	63
6	Pahang, Kelantan	15	14	19	17
Total		180	188	197	207

Table 1: Participation of Schools in the Fairs in 2008, 2009 and 2010

This year the organising committee has made changes in the number of zones to ensure more schools are given the opportunity to participate in the state level science fairs , by increasing the the number of zones from 6 to 9 zones. The difference made this year in zone categorisation is shown below;

Zone	2008 & 2009	2010
Zone 1	Kedah, Perlis & Penang	Kedah & Perlis
Zone 2	Perak	Penang
Zone 3	Selangor & Kuala Lumpur	Perak
Zone 4	Negeri Sembila & Melaka	Selangor
Zone 5	Johor	Kuala Lumpur
Zone 6	Pahang	Negeri Sembilan
Zone 7	-	Melaka
Zone 8	-	Johor
Zone 9	-	Pahang

Table 2: Comparison of Zone categories



The number of schools which participated at zone level based on this year's zone categorisation is as follows:

Zone	State(s)	Total Schools	Total Teams
Zone 1	Kedah & Perlis	17	20
Zone 2	Penang	16	16
Zone 3	Perak	50	53
Zone 4	Selangor	54	54
Zone 5	Kuala Lumpur	14	14
Zone 6	Negeri Sembilan	18	22
Zone 7	Melaka	21	21
Zone 8	Johor	59	68
Zone 9	Pahang, Kelantan	14	17
Total		263	285

Table 3: Participation Level of Schools in the 2010 Fair



- 1** KEDAH, PERLIS = **59** Schools
17 Schools Participated – **20** Teams
- 2** PENANG = **28** Schools
16 Schools Participated – **16** Teams
- 3** PERAK = **134** Schools
50 Schools Participated – **53** Teams
- 4** SELANGOR = **97** Schools
54 Schools Participated – **54** Teams
- 5** WILAYAH = **15** Schools
14 Schools Participated – **14** Teams
- 6** NEGERI SEMBILAN = **61** Schools
18 Schools Participated – **22** Teams
- 7** MELAKA = **21** Schools
21 Schools Participated – **21** Teams
- 8** JOHOR = **70** Schools
59 Schools Participated – **58** Teams
- 9** PAHANG, KELANTAN = **38** Schools
14 Schools Participated – **17** Teams



2.1 SCIENCE FAIR - DATES & VENUE

Zone Level

Zone	Venue	Date
Zone 1	AIMST University, Sungai Petani, Kedah	29 May 2010
Zone 2	SJK (T) Ramakrishna	22 May 2010
Zone 3	Masterskill, Perak	15 May 2010
Zone 4	TNB Hall, Kuala Lumpur	2 May 2010
Zone 5	TNB Hall, Kuala Lumpur	2 May 2010
Zone 6	SJK(T) Ldg. Seremban	22 May 2010
Zone 7	Planetarium Melaka, Melaka	30 May 2010
Zone 8	Universiti Tun Hussein Onn, Johor	9 May 2010
Zone 9	SMK Hwa Lian, Mentakab	23 May 2010

National Level

Accommodation	AIMST University, Sungai Petani, Kedah
Event	Great Hall, AIMST University, Sungai Petani, Kedah
Dates	June 5 – 6 2010

2.2 IMPLEMENTATION OF ZONE LEVEL SCIENCE FAIRS

2.2.1 ZONE 1: KEDAH & PERLIS

The event was successfully organised at AIMST University on 29 May 2010, with the collaborative effort between Putera MIC Kedah, staff and students from AIMST University and students from University Utara Malaysia. The state level science fair was held in the student centre, AIMST University. 17 teams from 20 schools participated in this event. (For full details and accounts refer to Appendix A1.)

2.2.2 ZONE 2: PENANG

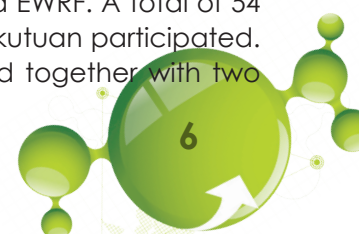
The Penang zone Science Fair for Young Children 2010 was held at SJK(T) Ramakrishna, on 22 May 2010, with the effort of the Tamil Foundation. A total of 16 teams from 16 schools took part. This year, Penang was categorised as a separate zone compare to previous years it was categorised as zone 1 together with Kedah, and Perlis. Categorising Penang as a separate zone enabled more Tamil Schools to participate in the science fair compared to previous years. 57 percent out of the 28 Tamil Schools in Penang participated this year. (For full details and accounts refer to Appendix A2)

2.2.3 ZONE 3: PERAK

This year's Science Fair in Perak was a very big success compared to the last two years. A total of 53 teams from 50 schools took part. In the Perak zone level Science Fair which was held on 5 May at the Ipoh Masterskill Campus with the collaborative effort between the Tamil Foundation and the Perak local organisation. (For full details and accounts refer to Appendix A3.)

2.2.4 ZONE 4 & 5: SELANGOR & WILAYAH PERSEKUTUAN

The Selangor and Wilayah Persekutuan Science Fair was successfully organised at the TNB Hall, Bangsar, Kuala Lumpur on 1 May 2010, with the collaborative effort between the Tamil Foundation and EWRF. A total of 54 teams from 54 schools from Selangor and 14 teams from 14 schools from Wilayah Persekutuan participated. Though the two states were categorised as two different zones the fair was organised together with two different judging groups. (For full details and accounts refer to Appendix A4.)



2.2.5 ZONE 6: NEGERI SEMBILAN

The Science Fair was staged at SJK (T) Ladang Seremban, Negeri Sembilan on 22 May 2010. The event was successfully organized by the Negeri Sembilan HM council and supported by the Malaysian Indian Science Intellectuals (MISI). A total of 23 teams from 19 schools participated in this event. (For full details and accounts refer to Appendix A5.)

2.2.6 ZONE 7: MELAKA

The Melaka Science Fair was held at Planetarium Melaka, on 30 May. The event was successfully organized by Putera MIC, MIES committee members and UTeM students & lecturers. A total of 21 teams from 21 schools (100%) participated (For full details and accounts refer to Appendix A6.)

2.2.7 ZONE 8: JOHORE

The Science Fair event was successfully organised at University Tun Hussein Onn Malaysia (UTHM) on 9 May, with the joint between PUTRA MIC, IPTI, SMC, EWRF, UTHM, and UTM. 68 teams from 59 schools participated in this event. (For full details and accounts refer to Appendix A7.)

2.2.8 ZONE 9: PAHANG & KELANTAN

The Pahang Science Fair was successfully organised at SMK Hwa Lian in Mentakab , on 23 May 2010. It was an effort between Tamil Foundation and Tamil Schools HM Council Pahang, with 17 teams from 14 schools participating. (For full details and accounts refer to Appendix A8.)



3

SCHOOLS PARTICIPATING IN STATE LEVEL SCIENCE FAIRS

3.1 ZONE 1: KEDAH & PERLIS

No.	School	Topic	Qualified to National Fair
1	SJK(T) Ladang Bukit Mertajam	Compass	YES
2	SJK(T) Tun Sambanthan	Sail a self powered boat	
3	SJK(T) Ladang Jabi	Volcano Eruption	
4	SJK(T) Thiruvalluvar	Rusting	
5	SJK(T) Mahajothi (A)	Colour a flower	
6	SJK(T) Mahajothi (B)	Hot air balloon	
7	SJK(T) Bukit Jenun	Ships and Shapes	
8	SJK(T) Saraswathy	Growth of bread mold	
9	SJK(T) Ladang Perbadanan	Colour a flower	YES
10	SJK(T) Ladang Sungai Ular	Solution and solubility	YES
11	SJK(T) Kulim	Bridge	
12	SJK(T) Wellesly (A)	Bridge	YES
13	SJK(T) Wellesly (B)	Water cycle	YES
14	SJK(T) Ladang Sungai Puntar	Volcano Eruption	
15	SJK(T) Ladang Sungai Bongkoh	Insect behavior	
16	SJK(T) Ladang Sungai Batu	Cake	
17	SJK(T) Bedong Weight Lifter	Weight Lifter	
18	SJK(T) Ladang Henrietta	Air pressure (Own topic)	
19	SJK(T) Ladang Bukit Sidim (A)	Rusting	
20	SJK(T) Ladang Bukit Sidim (B)	Homemade perfume	

3.2 ZONE 2: PULAU PINANG

No.	School	Topic	Qualified to National Fair
1	SJK(T) Bukit Mertajam	Growth of Bread Mould	
2	SJK(T) Ladang Kerian	Bridge	YES
3	SJK(T) Ladang Jawi	Asteroids	YES
4	SJK(T) Rajaji	Decoration On Plant Leaves	
5	SJK(T) Subramaniya Barathee	Rusting	
6	SJK(T) Palaniandy, Kepala Batas	Compass	
7	SJK(T) Ladang Prye, Prai	Energy Transformation	YES
8	SJK(T) Permatang Tinggi	Blade Shapes & Speed of Boat	YES
9	SJK(T) Ladang Changkat	Vitamin C	YES
10	SJK(T) Ladang Juru	Windmill	
11	SJK(T) Ramakrishna	Deoxyribonucleic Acid (DNA)	
12	SJK(T) Sungai Ara	Parachute Jumper	
13	SJK(T) Ladang Sempah	Vitamin C	
14	SJK(T) Mak Mandin	Volume of Air	
15	SJK(T) Perai	Water Purification	YES
16	SJK(T) Mayfield	Solution and Solubility	

3.3 ZONE 3: PERAK

No.	School	Topic	Qualified to National Fair
1	SJK(T) Maha Ganesa Vidyasalai	Viscosity of Liquids	YES
2	SJK(T) Mukim Pundut	Breathing is Essential to Life	YES
3	SJK(T) Ladang Sungai Samak	Deoxyribonucleic Acid (DNA)	YES
4	SJK(T) Tanah Rata	Bridge	YES
5	SJK(T) Taman Desa Pinji	Detergents and Plant Growth	YES
6	SJK(T) Ladang Chemor	Homemade Perfume	YES
7	SJK(T) Bagan Serai	Frictional Force	YES
8	SJK(T) Mahatma Gandhi Kalasalai (B)	Light Pattern	YES
9	SJK(T) Ladang Jendrata Bhgn 3	Stability	YES
10	SJK(T) Klebang, Chemor	Sail a Self-Powered Boat	YES
11	SJK(T) Menglembu	Frictional Force	
12	SJK(T) Pangkor	Missiles Launcher	
13	SJK(T) Ladang Sin Wah	Sail a Self-Powered Boat	
14	SJK(T) Ayer Tawar	Growth of Bread Mould	
15	SJK(T) Methodist, Buntong	Vitamin C	
16	SJK(T) Nattessa Pillai	Vitamin C	
17	SJK(T) Gunung Rapat	Stability	
18	SJK(T) Ringleet, Cameron Highlands	Hydroelectric Power Station	
19	SJK(T) Thiruvalluvar	Make Your Own pH Paper	
20	SJK(T) Jalan Sir Chulan, Selama	Vitamin C	

No.	School	Topic	Qualified to National Fair
21	SJK(T) Tong Wah, Tapah	Paper Chromothography	
22	SJK(T) Mambang Diawan	Detergents and Plant Growth	
23	SJK(T) Beruas	Homemade Perfume	
24	SJK(T) St.Mary, Parit Buntar	Rusting	
25	SJK(T) Keruh, Pengkalan Hulu	Frictional Force	
26	SJK(T) Ladang Sogomana	A Magnetic Boat	
27	SJK(T) Mahatma Gandhi Kalasalai (A)	Rusting	
28	SJK(T) Sungai Biong	Make Your Own pH Paper	
29	SJK(T) Pengkalan Baru	Colour of Light	
30	SJK(T) Gerik	Energy Transformation	
31	SJK(T) Tanjong Rambutan	Growth of Bread Mould	
32	SJK(T) Simpang Lima	Photosynthesis Process in the Green Plant	
33	SJK(T) Chettiars, Jalan Lahat	A Magnetic Boat	
34	SJK(T) Ladang Soon Lee	Colour of Light	
35	SJK(T) Tan Sri Dato' Manickasagam (A)	Weight Lifter	
36	SJK(T) Kg.Simee	A Natural Electricity	
37	SJK(T) Ringlelet (B)	Solar Energy	
38	SJK(T) Gopeng	Decoration On Plants' Leaves	
39	SJK(T) Ladang Glenealy, Parit	Colour A Flower	
40	SJK(T) Sithambaram Pillai	Fly A Straw Plane	
41	SJK(T) Ladang New Coconut	Growth of Bread Mould	
42	SJK(T) Kerajaan, Jalan Sg.Pari	Cake	
43	SJK(T) Ladang Nova Scotia 1	Missiles Launcher	
44	SJK(T) Perak Sangeetha Sabah	Water Cycle	
45	SJK(T) Ladang Jin Seng	Colour A Flower	
46	SJK(T) Tan Sri Dato' Manickasagam (B)	Water Purification	
47	SJK(T) Perak River Valley	Stability	
48	SJK(T) Bagan Datoh	Brightness of Lights	
49	SJK(T) Dato Sithambaram Pillai	Photosynthesis Process in the Green Plant	
50	SJK(T) Ladang Kota Lima, Lenggong	Hydroelectric Power Station	
51	SJK(T) Banopdane	Rusting	
52	SJK(T) Ladang Sungai Reyla	Cake	
53	SJK(T) Ladang Dovenby	Floating Footwear	

3.4 ZONE 4: SELANGOR

No.	School	Topic	Qualified to National Fair
1	SJK(T) Sepang	Home-made Perfume	
2	SJK(T) Ladang Ebor	A Magnetic Boat	
3	SJK(T) Gadong	Natural Electricity	
4	SJK(T) Batu Caves	Natural Electricity	
5	SJK(T) Jalan Meru	Amphibious Vehicle	
6	SJK(T) Sungai Renggam	Breathing is Essential to Life	
7	SJK(T) Glenmarie	Bridge	
8	SJK(T) Ladang Hopeful	Brightness of Light	
9	SJK(T) Taman Melawati	Cake	
10	SJK(T) North Hummock	Cake	
11	SJK(T) Vageesar	Characters of Air	YES
12	SJK(T) Ladang Riverside	Colour a Flower	
13	SJK(T) Ladang Kg. Baru	Colour a Flower	
14	SJK(T) Vivekandanda, PJ	Colour of Light	
15	SJK(T) Persiaran Raja Muda Musa	Colour of Light	
16	SJK(T) West Country (Timur)	Decoration On Plant Leaves	
17	SJK(T) Ladang Braunston	Decoration on Plants' Leaves	
18	SJK(T) Ladang Bukit Ijok	Detergents and Plant Growth	
19	SJK(T) Bestari Jaya	Detergents and Plant Growth	
20	SJK(T) Ghandiji	DNA	
21	SJK(T) Kuala Kubu Baru	Energy Transformation	
22	SJK(T) Ladang Mary	Energy Transformation	
23	SJK(T) Methodist, Kapar	Floating Footwear	YES
24	SJK(T) Ladang Coalfields	Fly a Straw Plane	
25	SJK(T) Bandar Baru Salak Tinggi	Frictional Force	
26	SJK(T) Kinrara	Frictional Force	
27	SJK(T) Saraswathy, Sungai Buloh	Growth of Bread Mould	
28	SJK(T) Ladang Kuala Selangor	Growth of Bread Mould	
29	SJK(T) Castlefield	Home-made Perfume	
30	SJK(T) Ladang Highlands	Hydroelectric Power Station	
31	SJK(T) Ladang Vallambrosa	Hydroelectric Power Station	
32	SJK(T) Taman Permata	Liquid Pressure	YES
33	SJK(T) Sungai Buaya	Liquid Pressure	
34	SJK(T) Teluk Merbau	Load and Effort	YES
35	SJK(T) Effingham	Make a Compost Bin	
36	SJK(T) Ladang Midlands	Make a Compost Bin	
37	SJK(T) Bukit Beruntung	Make Your Own pH Paper	
38	SJK(T) Telok Datok	Make Your Own pH paper	YES
39	SJK(T) FES Serdang	Paper Chromothography	
40	SJK(T) Dengkil	Photosynthesis	
41	SJK(T) Kajang	Repulsive Force Between Magnets	YES

No.	School	Topic	Qualified to National Fair
42	SJK(T) Hicom	Rollercoaster	
43	SJK(T) Ladang Sungai Terap	Rusting	
44	SJK(T) Rinching	Rusting	
45	SJK(T) Batu Arang	Sail a Self-powered Boat	
46	SJK(T) Rawang	Solar Energy	
47	SJK(T) Ldg Raja Musa	Solution and Solubility	
48	SJK(T) Ladang Semenyih	Solution and Solubility	
49	SJK(T) Simpang Lima	Stability	
50	SJK(T) Batu Ampat, Klang	Viscosity of Liquids	YES
51	SJK(T) Ampar Tenang	Vitamin C	
52	SJK(T) Sg. Choh	Volume of Air	
53	SJK(T) Ladang Emerald	Water Cycle	
54	SJK(T) Ladang Lima Belas	Water Cycle	

3.5 ZONE 5: WILAYAH PERSEKUTUAN KUALA LUMPUR

No.	School	Topic	Qualified to National Fair
1	SJK(T) Segambut	Vitamin C	YES
2	SJK(T) Vivekananda, Brickfields	Fly a Straw Plane	YES
3	SJK(T) Jalan Cheras	Stability	
4	SJK(T) Sungai Besi	Missiles Launcher	
5	SJK(T) Bukit Jalil	Growth of Bread Mould	
6	SJK(T) Tamboosamy Pillai	Bridge	
7	SJK(T) St. Joseph	Corrosion of Metal	YES
8	SJK(T) Edinburgh	Incredible Box	YES
9	SJK(T) Kg. Pandan	Volume of Air	
10	SJK(T) Jalan San Peng	Parachute Jumper	YES
11	SJK(T) Jalan Fletcher	Colour a Flower	
12	SJK(T) Jalan Bangsar	Decoration on Plants' Leaves	
13	SJK(T) Saraswathy	Spreading of Lights	
14	SJK(T) Appar	Water Purification	

3.6 ZONE 6: NEGERI SEMBILAN

No.	School	Topic	Qualified to National Fair
1	SJK(T) Lobak	Sail a Self Power Boat	
2	SJK(T) Ldg Senawang	Colour a Flower	
3	SJK(T) Ldg Juasseh	Rusting	
4	SJK(T) Tampin	Rusting	
5	SJK(T) Rantau	Vitamin C	
6	SJK(T) Ldg Lenggeng	Colour of Light	
7	SJK(T) Ldg Seremban (A)	Frictional Force	
8	SJK(T) Ldg Seremban (B)	Windmill	
9	SJK(T) Ldg Batang Benar	Solution and Solubility	
10	SJK(T) Ladang Cairo	Growth of Bread Mold	
11	SJK(T) Sungai Salak (A)	Decoration On Plants Leaves	
12	SJK(T) Sungai Salak (B)	Parachute Jumper	
13	SJK(T) Chembong	Growth of Bread Mold	
14	SJK(T) Ldg ST Helier	Colour of Flower	
15	SJK(T) Nilai (A)	Volume of Air	YES
16	SJK(T) Nilai (B)	Water Purification	YES
17	SJK(T) Kuala Pilah	Solution and Solubility	
18	SJK(T) Ldg Tampin Linggi	Stability	YES
19	SJK(T) Java Lane (A)	Paper Chromatography	
20	SJK(T) Java Lane (B)	Homemade Perfume	YES
21	SJK(T) Ldg Air Hitam	Spreading of Lights	
22	SJK(T) Mukundan	Make Your Own PH Paper	YES

3.7 ZONE 7: MALACCA

No.	School	Topic	Qualified to National Fair
1	SJK(T) Ladang Gadek	Colour of Flower	
2	SJK(T) Kemuning (H/D)	Fly a Straw Plane	
3	SJK(T) Melaka (Kubu)	Growth of Bread Mold	YES
4	SJK(T) Bukit Lintang	Vitamin c	
5	SJK(T) Durian Tunggal	Bridge	
6	SJK(T) Ldg Diamond Jubilee	A Magnetic Boat	
7	SJK(T) Rumbia	Cake	
8	SJK(T) Ldg Bukit Kajang	Water Purification	YES
9	SJK(T) Ldg Sg Baru (H/D)	Rusting	YES
10	SJK(T) Ladang Serkam	Homemade Perfume	
11	SJK(T) Merlimau	Stability	
12	SJK(T) Jasin	Colour of Light	YES
13	SJK(T) Alor Gajah	Water Cycle	
14	SJK(T) Pekan Tebong	Photosynthesis Process in Green Plant	

No.	School	Topic	Qualified to National Fair
15	SJK(T) Paya Rumpit	Decoration on Plant Leaves	
16	SJK(T) Ldg Jasin Lalang	Compass	
17	SJK(T) Ldg Bukit Asahan	Make a Compost Bin	
18	SJK(T) Batang Melaka	Detergents and Planth Growth	YES
19	SJK(T) Pulau Sebang	Frictional Force	
20	SJK(T) Ldg Tebong	Make our Own pH Paper	YES
21	SJK(T) Ldg Kemuning Kru	Make a Compost Bin	

3.8 ZONE 8: JOHOR

No.	School	Topic	Qualified to National Fair
1	SJK(T) Ladang Tebrau	Ancient Clock	
2	SJK(T) Ladang Mount Austin	Fly a Straw Plane	
3	SJK(T) Permas Jaya (A)	Cake	
4	SJK(T) Permas Jaya (B)	Floating Object	
5	SJK(T) Ladang Sungai Plentong	Decoration on Plant leaves	
6	SJK(T) Masai, Johor (A)	Roller Coster	YES
7	SJK(T) Masai, Johor (B)	Solar Energy	YES
8	SJK(T) Pasir Gudang (A)	Floating Footwear	
9	SJK(T) Pasir Gudang (B)	Natural Electricity	
10	SJK(T) Desa Cemerlang (A)	Homemade Perfume	
11	SJK(T) Desa Cemerlang (B)	Decoration on Plants	
12	SJK(T) Ladang Ulu Tiram	Rusting	YES
13	SJK(T) Ladang Mados	Volume of Air	
14	SJK(T) Ladang Rini	Photosynthesis Process in the Green Plant	
15	SJK(T) Gelang Patah (A)	Water Cycle	
16	SJK(T) Gelang Patah (B)	Hot Air Balloon	
17	SJK(T) Taman Tun Aminah (A)	Detergent and Plants	YES
18	SJK(T) Taman Tun Aminah (B)	Vitamin c	YES
19	SJK(T) Jalan Yahya Awal (A)	Frictional Force	YES
20	SJK(T) Jalan Yahya Awal (B)	Non Guided (windmill)	
21	SJK(T) Ladang Sri Gading	Growth of Bread Mold	
22	SJK(T)) Seri Pelangi	Colour of Flower	
23	SJK(T) Ladang Yong Peng	Brightness of Light	
24	SJK(T) Jalan Tajul	Sail Speed Boat	
25	SJK(T) Ladang R.E.M.	Renewble Energy	
26	SJK(T) Ladang Pasak	Sail Speed Boat	
27	SJK(T) Ladang Pelepah	Straw Plane	
28	SJK(T) Ladang Nam Heng	Hidroelectric Power Station	

No.	School	Topic	Qualified to National Fair
29	SJK(T) Ladang Teluk Sengat	Viscosity of Liquids	
30	SJK(T) Jalan Parit Ibrahim	Colour a Flower	
31	SJK(T) Cantuman Chaah	Hydrodinamik	
32	SJK(T) Ladang Voules	Energy Transformation	
33	SJK(T) Bandar Segamat	Bridge	
34	SJK(T) Batu Anam	Water Purification (<i>non guide</i>)	
35	SJK(T) Bekok	Electrical Magnet	
36	SJK(T) Ladang Sungai Muar	Spreading of Light	
37	SJK(T) Ladang Sungai Senarut	Decoration on Plant Leaves	
38	SJK(T) Ladang Gomali	Rusting	
39	SJK(T) Ladang Fotrose	Make Own pH Paper	
40	SJK(T) Ladang Nagappa	Spreading of Light	
41	SJK(T) Ladang Tangkah	Parachute Jumper	
42	SJK(T) Ladang Sagil	Liquid Pressure	
43	SJK(T) Ldg. Bukit Serampang	Water Filter	
44	SJK(T) Ldg. Tanah Merah	Decorate on Plant	
45	SJK(T) Jalan Sialang	Make a Compost	
46	SJK(T) Ladang Bekoh	Soap Making	
47	SJK(T) Jalan Khalidi	Home Made Perfume	YES
48	SJK(T) Ladang Lanadron	Make Our Own pH Paper	YES
49	SJK(T) Ladang Nordanal	Volume of Air	
50	SJK(T) Kangkar Pulai (A)	Renewable Energy	
51	SJK(T) Kangkar Pulai (B)	Detergent and Plant Grow	YES
52	SJK(T) Ldg. Kulai Besar (A)	Air Floating Object	
53	SJK(T) Ldg. kulai Besar (B)	Make Own pH Paper	YES
54	SJK(T) Ladang Kelan	Liquid Pressure	
55	SJK(T) Ldg. Kulai Oil Palm	Home Made Perfume	
56	SJK(T) Ldg. Ulu Remis	Transparent Translucent	
57	SJK(T) Jalan Bukit Renggam	Shape of Blade Speed of Boat	
58	SJK(T) Ldg. Simpang Renggam	Fly a Straw Plain	
59	SJK(T) Ldg. Southern Malay	Wheel and Diameter	
60	SJK(T) Ladang Lambak	Stability	
61	SJK(T) Ladang Elaies	Vitamin	
62	SJK(T) Jln Hj. Manan	Photosynthesis	
63	SJK(T) Ldg. Mengkibol(A)	Parachute Jumper	YES
64	SJK(T) Ldg. Mengkibol(B)	Powered Boat	
65	SJK(T) Ladang Pamoll	Bread Mold	
66	SJK(T) Kahang Bt.24	Frictional Force	
67	SJK(T) Jalan Station Paloh	Wind Power	
68	SJK(T) Jalan Ismail	Viscosity of Liquids	

3.9 ZONE 9: PAHANG& KELANTAN

No.	School	Topic	Qualified to National Fair
1	SJK(T) Bentong	Parachute Jumper	
2	SJK(T) Karak	Solution and Solubility	
3	SJK(T) Kuala Lipis	A Magnetic Boat	
4	SJK(T) Ldg. selbourne	Fly a Straw Plane	
5	SJK(T) Raub	Water Purification	
6	SJK(T) Ladang cheroh	Colour of Light	
7	SJK(T) Bdr Indera Mahkota	A Natural Electricity	YES
8	SJK(T) Bdr Indera Mahkota	Rusting	
9	SJK(T) Bandar Mentakab	Missiles Launcher	YES
10	SJK(T) Bandar Mentakab	Breathing is Essential to life	
11	SJK(T) Bandar Mentakab	Roller Coaster	YES
12	SJK(T) Ladang Mentakab	Renewable Energy	
13	SJK(T) Ladang Sg. Tekal	Floating Footwear	
14	SJK(T) Ladang Lanchang	Corrosion of Metal	YES
15	SJK(T) Ladang YCL	Air Floating Object	
16	SJK(T) Ladang Karmen	Stability	
17	SJK(T) Ladang Sg. Kawang	Decoration on Plants Leaves	YES

4

RESEARCH & QUALITY

The Science fair folder was a key tool for the Organisers, Teachers, Students, Parents, Facilitators and Judges to implement the project as accurately as possible. The Folder included:

1. Organisers Manual: Basically gives an explanation on how to organize a science fair. Example in schools, class rooms, organisations, etc.

2. Teachers Manual: Explains roles and responsibilities of the Science Teachers to guide the participants of the Fair.

3. Students Manual: Helps the students to develop their project and provides the format of writing a report.

4. Parents Guide: Guides the participant's parents to motivate their child to perform well in SFYC.

5. Facilitators Manual: Gives a guideline to the Facilitators on how to facilitate so that they can help teachers and students during school visits.

6. Judges Manual: Gives proper guidelines on how to judge a science project effectively. This manual had been improvised considerably after last year's feedback on the Judging criteria.

7. Collection of Experiments: There are 32 guided experiments and 30 non-guided experiments to provide a clear guideline of the various science projects listed in the manual.

8. Evaluation: Questions for evaluation have been included for each respective session for improvement in future.

4.1 SET OF EXPERIMENTS

This year a total of 30 non-guided and 32 guided experiments were prepared to be included in the SFYC folder with the effort of the R&D team judging team. At the same time certain experiments were removed from last year's experiment list to standardise the level of experiments.

Once the titles were confirmed, the R&D Dept. Took charge of the final experiment titles or questions into Tamil. While the translation was going on, the R&D Department had a meeting with the core judges to share their ideas on each non-guided question.

Then it was sent for proof reading and quality control. After making some final amendments, the list was completed during the last week of January.

The complete list of experiments is as follows:

No.	Guided Experiments	Non-Guided Experiments
1	Compass	Repulsive Force Between Magnets
2	Weight Lifter	Airborne Vehicle
3	Sail a self –Powered Boat	Amphibious Vehicle
4	Parachute Jumper	Bridge
5	Decoration on Plants Leaves	Incredible Box
6	Fly a straw Plane	Asteroids
7	Rusting	Rollercoaster
8	Frictional Force	Floating Footwear
9	Solution and Solubility	Windmill
10	Colour a Flower	Load and Effort
11	Liquid Pressure	Characters of Air
12	Detergents of Liquid	A Natural Electricity
13	Viscosity of Lights	Colour and Absorption
14	Spreading of Lights	Hydroelectric Power Station
15	Colour of Lights	Hot Air Balloon
16	Vitamin C	Water Purification
17	Growth of Bread Mold	Wind Power
18	Stability	Light Pattern
19	Volume of Air	Water Cycle
20	Breathing is Essential to Life	Corrosion of Metal
21	Missiles Launcher	Ships and Shapes
22	Photosynthesis Process in the Green Plant	Brightness of Lights
23	Cake Blade	Shapes and Speed of Boat
24	Hull Design and Hydrodynamics	Solar Energy
25	Homemade Perfume	Energy Transformation
26	Alternative Current Generator	Wheels and Diameters
27	Paper Chromatography: Basic Version	Ancient Clock
28	Deoxyribonucleic Acid (DNA)	Water Rollercoaster
29	Gaseous Exchange in Leaves	Air Floating Object
30	Make Your Own pH Paper	Renewable Energy
31	A Magnetic Boat	
32	Make a compost Bin	

4.2 SCIENCE FAIR FOLDER

The Science Fair was a project which could span several months. The organising committee had the responsibility of developing and upgrading last year's modules to help them conduct the fair effectively.

Modules were developed and compiled for the:-

- (1) Organisers
- (2) Students
- (3) Teachers
- (4) Parents
- (5) Facilitators
- (6) Judges

Working Committee members and a group of professionals from Johor led by Dr.Subramaniam (Johor Chief Judge) helped in reviewing the manuals, which were then distributed in the form of CDs to all the participated schools.

We hope that the modules would help future committee members to organise science fairs at school levels, district levels, State levels and also at national level. The manual should be upgraded from time to time to improve the Quality of the Science Fair.

4.3 VCD PRODUCTION

This year NSFYC's materials were given out in the form of CD, VCD and DVD. We prepared the Students guide, Teachers guide, Parents guide, Experiment guide VCD Documentation and NSFYC '08 and SFYC'09 event day and also a simple experiment demonstration into DVD documentation. All the materials in the SFYC folder were given out in hard copy in previous years, but this year softcopy (CD) was sent to all schools.

4.4 NATIONAL SCIENCE FAIR EVENT DAY SURVEY

A survey was carried out by the R&D department during the event day to obtain the following information:

- (1) Students, Teachers and Visitors opinion on organising methods
- (2) Analyse the quality of the programme

(For a detailed survey report, please refer to Appendix B.)

4.5 RECOMMENDATIONS FOR THE FUTURE

- (1) To involve teachers in the preparation of manuals and translation.
- (2) Make sure that all the manuals are in dual-language (Tamil & English).
- (3) Experiments should be in simple language which can be understood by the students.
- (4) More graphics and pictures rather than notes so that the students understand easily.



5

TRAININGS

5.1 TEACHERS & FACILITATORS TRAINING

Training for teachers and facilitators were conducted parallel in each zone and the training sessions were arranged by the respective zone coordinators. These sessions were conducted by the National Science Fair Working Committee members.

The training sessions and materials were planned by the National Science Fair Working Committee and training dates were given by the respective zone coordinators in advance so that the training team can make the prior arrangements. All the training sessions were conducted as stated below.

5.1.1 ZONE 1: KEDAH & PERLIS

Date	: 20 March 2010
Venue	: AIMST University, Sungei Petani, Kedah
No. of Teachers	: 20
No of Facilitators	: 0

There were no teachers came from Perlis Tamil schools. Facilitators' training was not arranged by the coordinator. A lot of questions were asked by the teachers.

5.1.2 ZONE 2: PENANG

Date	: 7 March 2010
Venue	: SJK(T) Ramakrishna
No. of Teachers	: 15
No of Facilitators	: 6

The teachers' training was well organised and they were keen to participate. New schools attended the training.

5.1.3 ZONE 3: PERAK

Date	: 6 – 7 March 2010
Venue	: Ipoh, Bagan Serai, Teluk Intan, Sungkai
No. of Teachers	: 87
No of Facilitators	: 25

Training was held at 4 different locations. Teachers were interested to join in the Science Fair in previous years but there was lack of information. The other problem is the lacking of facilitators to facilitate teachers in schools. Anyway lot of effort was put in by the sub-coordinators and coordinators to pull the schools into Science fair.

5.1.4 ZONE 4 & 5: SELANGOR & WILAYAH PERSEKUTUAN

Date	: 20 March 2010
Date	: 13 February, 26 February and 6 March 2010
Venue	: 2nd college, Universiti Malaya
No. of Teachers	: 56
No of Facilitators	: 7

The training was organized twice due to insufficient teachers and facilitators. The coordinator and his team had to work hard to invite the schools for the training session.

5.1.5 ZONE 6 : NEGERI SEMBILAN

Date	: 3 April 2010
Venue	: SJK (T) Lobak, Negeri Sembilan
No of Teachers	: 31
No. of Facilitators	: none

The training session was well organised. Teachers from 31 schools attended the training but only 18 schools were registered to participate at state level.

5.1.6 ZONE 7: MELAKA

Date	: 21 March 2010
Venue	: Kolej Komuniti, Melaka
No. of Teachers	: 17
No. of Facilitators	: 12

Teachers were not very keen to participate initially because they did not get a clear picture of the fair which was being held in Melaka for the first time. However facilitators and coordinators worked hard to get teachers into SFYC.

5.1.7 ZONE 8: JOHORE

Date	: 6 march 2010
Venue	: University Tun Hussein Onn, Batu Pahat, Johor.
No of Teachers	: 120
No. of Facilitators	: 40

Teachers from 70 schools attended the training and were keen to participate. The training session was well organised.

5.1.8 ZONE 9 : PAHANG & KELANTAN

Date	: 13 March 2010
Venue	: SJKT Mentakab & SJKT Raub
No. of Teachers	: 20
No. of Facilitators	: 0

Teachers were keen to participate but they would like the training to be held near their school area because they have to travel far to attend the training.



6

PUBLIC RELATIONS & FUNDING

6.1 PUBLIC RELATION

Public Relations (PR) for the Science Fair is the flow of information between the Science Fair Secretariat and its publicity. Pamphlets and Invitations were sent to VIP's, guests and well-wishers to spread information and to garner public awareness for the National Science Fair. Main activities included discussion sessions with the relevant media. Etc. ASTRO Vaanavil as the official media partner provided good publicity to SFYC.

The publicity slots arranged by ASTRO Vaanavil is as follows :

1. 13 series science capsules
2. 2 interview slots in Vizhuthugal.
3. Promotion 2 weeks before National Level.
4. Publicity on newspaper (Appendix D)

This year, a special 13 series science capsule programme was telecasted in ASTRO Vaanavil. The capsule programme highlighted some foreign and local popular scientists as an appreciation to their achievement towards the world of science. Since the capsule had given very good publicity, in previous years, the SFYC working committee decided to carry out the worth while capsule programme again this year. This year the programme featured the presentation of top 10 winners of 2009's national level science fair who displayed simple, catchy and informative experiments. A total of 13 capsules were telecasted, each with duration of 30 seconds.

Other than Astro Vaanavil, the national broadcasting radio channel (RTM) and Minnal FM also provided us three interview slots which was arranged and supported by Dhraa Malaysia, one of our partner organisations. One slot gave information of the overall state level science fairs and the national fair and the two slots after the event, interviewed the winners of SFYC 2010.

6.2 FUNDING

This year, the funding came from donations, sale of advertisement space and products. The targeted funders were approached through phone calls and emails by the key stakeholders. After receiving their positive feedback, they were told the importance of the Science Fair and the funds needed for the fair.

SFYC's main funder is MCEF-CCI and this programme was also funded by ECM Libra Foundation. These two funding organisations are the backbone of SFYC and besides them other individuals from various professional backgrounds also provided sponsorship.

The sponsor details for National Science Fair 2010 are listed below:

No.	Sponsors	Amount (RM)
1	MCEF-CCI	150,000.00
2	ECM Libra Foundation	55,235.00
3	Dato' Dr. Subra	20,000.00
4	EWRF	15,180.00
5	Mr. Dorairaj	6,000.00
6	Mr. Kabilan/Winning Magnitude	5,000.00
7	Haygroup	5,000.00
8	Mdm. Anne	3,000.00
9	Dato' Sahadevan	3,000.00
10	NLFCS	2,000.00
11	DHRRR MALAYSIA	2,000.00
12	RPS Supply Services	1,500.00
13	Haji Taslim	1,000.00
14	Mr. Sharan	600.00
15	YB Mohan	500.00
16	Prof. Kurunathan	500.00
17	Warisan Global	500.00
Grand Total		271,015.00

The AIMST University management sponsored the venue for the National Level Science Fair. Their contribution reduced the funding needed by RM22,000. We also approached many other corporate companies to sponsor products for our programme. The response was not encouraging. We were only able to get products sponsored by Cotra Enterprises Sdn. Bhd. They sponsored 480 packets of Marigold drinks for our participants. Their contribution is highly appreciated by the working committee of SFYC. We look forward to more companies coming forward to sponsor us in the future.

The products they sponsor will be delivered to our participants during the event day. We believe that their contributions will also serve as good publicity and a good marketing strategy for their products to our participants who were aged between 10 – 11 years old, teachers, parents and the public who visited our fair. As an appreciation to all our sponsors we included their company logo in all our promotional materials such as banners, buntings and programme book. We also prepared a special bunting for our sponsors to recognise them and displayed it at the venue.



7

VOLUNTEERS & FACILITATORS MANAGEMENT

Target Group

Form 6 leavers, college and university students were recruited to facilitate schools with Science fair experiments because they have better knowledge and skills to help the students and teachers.

Objective

Involvement of college and university students will encourage the participating students to do better besides getting a lot of knowledge and ideas from them.

Facilitators Recruitment

Science Fair for Young Children requires more human resource to run the event at state and national levels. There were a few drawbacks due to the lack of facilitators for Science Fair 2010 compared to the National Science Fair for Young Children last year.

Facilitators training

- Introductions, Project Overview

- A group introduction and discussion on SFYC.
- Learn personal objectives of every participant.
- Discuss general preparation for the SFYC.

Facilitators' roles in SFYC

- Guide and help the participating children and their teachers.
- School visits
- Submit report to coordinator.
- Help out in state level Science Fairs – organising the fair - Conduct supplementary Competitions for example Colouring, Drawing, Science Quizzes, and Multi media quizzes.
- Support the National Science Fair.

The Facilitator management began with the recruitment of facilitators at a few universities and colleges by the R & D Department. Facilitators, who signed up, had their details included in the database and the name list was given to the coordinator of the particular state for them to follow up and coordinate the event. All facilitators were given a facilitators manual each as a guide for them to perform their task.

Based on the feedback, certain schools complained that the facilitators did not help the students much compared to previous years. More intense training for facilitators should be carried out and a few zones need more facilitators to help the teachers and students. Thus, more facilitator recruitment must be carried out to ease the problem in schools and among coordinators.



8

NSFYC 2010 STUDENT'S CONFERENCE

At the National Science Fair, the top three winning teams from each zone submitted a 2-page conference paper. The papers were reviewed by the NSFYC Committee and were presented at a special conference paper presentation at the AIMST University lecture Hall on 5 June 2010 from 7.30 pm to 10pm.

Objectives

- To cultivate the concept of research findings and sharing the academic approach with the other participants of the fair in a formal way.
- To provide an opportunity to write the research findings in an organised and systematic manner.
- To provide an avenue for the young scientists to experience the atmosphere of a conference paper presentation.
- To develop confidence, encourage and expose them to speak in public and mould them to be good presenters in future.

Guidelines

- 3 conference papers from the 1st, 2nd and 3rd prize winners of each zone were submitted to the Conference Paper judges. All the teams presented their conference paper for NSFYC 2010.
- The conference paper was written based on the experiments conducted by the teams for National Level Competition.
- One person from each team was required to present the paper at the Conference Paper Presentation.
- Students were required to present their paper using Microsoft PPT slides (only 8 pages are allowed). Presentation time was 10 minutes and 5 minutes for Q&A.

NATIONAL SCIENCE FAIR FOR YOUNG CHILDREN 2010

The National Science Fair for Young Children 2010 was a three day event which started on a Friday evening and ended on Sunday evening. The details of the event are as follows:

Venue for Accommodation	: AIMST University
Date	: 4 – 6 June 2010
Venue for Science Fair	: Great Hall, AIMST University, Sungei Petani. Kedah

1st Day – 4 June 2010

Participants from each zone started arriving from 2pm onwards. They started to check into their rooms after registering upon arrival. Meanwhile, the log book and report book which had been collected from the teams during registration were judged by a group of judges.

After dinner, the participants were briefed on the itinerary for the 3 days by Mr. Maheswaran and his team. Mr. Ranjit (Head of Division, Student Affairs) from AIMST University briefed them on the rules and regulations of the premises.

2nd Day – 5 June 2010

There was a close door judging on the 1st day of the fair from 9.30am until 4.00pm. Lunch was served from 12.00 noon to 1.00pm. The public viewing was delayed for an hour due to the long judging process. The public were only allowed to view the booths at 4.00pm. Those who came earlier had to wait until the judging process was over. There were also some additional activities such as drawing competitions and quizzes for the public besides booth viewing.

The participants were given a tea break from 4pm-5pm, followed by dinner at 7.00pm. After dinner, the conference paper presentation was held at a lecture hall of AIMST in 4 parallel sessions. The top three teams from each zone presented their research and findings from their experiments. A total of 27 teams participated in this section and the top 2 teams from this 4 group were selected to a VIVA section which was held the following day.

3rd Day – 6th June 2010

After breakfast the participants was brought to the Anatomy Museum inside the AIMST University (Exclusive of 8 selected teams for VIVA section). At the same time the VIVA for the 8 teams was carried out at the lecture Hall of AIMST University. When a team was doing their presentation, the other teams were quarantined in a separate hall. After attending the VIVA section, the teams visited the Anatomy Museum.

The 2nd day of the Science Fair was opened to the public from 11.00 am to 3.00 pm. During the fair, there were other activities such as science quest, games, and competitions, the closing ceremony started at 3.30pm and ended at 5.00pm.



10

JUDGING

The Judging department worked based on the time line stated below:

(i) Nov-Dec 2009:

Finalising Judging criteria based on Experiments/ Projects (*Guided and Non-Guided*), working together with Research and Development team.

(ii) Dec-Jan 2010:

Formation of a Core Judging Panel and conducting a Brainstorming Session within the Judging Panel:

(a) to discuss the methodology and training materials required for the training of State/zone level judges.

(b) To set the criteria to select the state/zone level judges.

(iii) Jan-March 2010:

Task 1: Prepare Training materials (*Slides/handouts, etc*) to train the judges.

Task 2: A Complete briefing on guided and non-guided experiments to the Judging Panel (*It's like a Workshop session, to make sure the Core-Judging Panel was well equipped with the "experimental" and "theoretical" knowledge of all the experiments*). The briefing & workshop session needed help from the R&D Department.

The Judges liaised with the state coordinators to conduct regional training and a schedule was put in place.

To identify new members to join the judging team as the Core Judging Panel. Gear the Core Judging Panel to have regular meetings with the core judges. Core Judges to visit the state level Science Fairs if necessary to obtain better feedback from those Science Fairs. National Science Fair – close door judging by the selected judging group from each zone. (refer Appendix C for full report).

BEST COORDINATORS

Appreciation for Coordinators

Two coordinators were chosen for setting the benchmark as good Science Fair Coordinators. We look forward to their continuous support and help to make next year's Science Fair a success.

All other zone coordinators have also done their best.

i. Mr.Rama Sockalinggam
Team Melaka Zone Coordinator.

- He has shown great enthusiasm with a positive attitude
- He also managed to keep up his promises by getting 21/22 schools (100%) in Malacca to participate in the state and school level Science Fairs.
- Has good managing skills & created cooperative environment between the committees
- Excellent and active planning
- Supportive person.
- He cares about the students as well as their success and achievement and is able and willing to communicate this concern.

ii. Mr.Thiagarajan Sockalinggam and Team
Perak Zone Coordinator

- Really committed and has enhanced leading skills.
- Always updating, gives accurate information, well versed with the project aims and objectives.
- Caring, communicative, competent and confident.
- Excellent and active planning.

12

ACHIEVEMENTS OF THE PROJECT

Having conducted the Science Fair for the last 4 years:

2007	Selangor & Wilayah only	44 Schools	49 Teams
2008	National Level (6 zones)	180 Schools	197 Teams
2009	National Level (6 zones)	188 Schools	207 Teams
2010	National Level (9 zones)	263 Schools	285 Teams

This year, we conducted the state level Science Fairs in 9 zones, with 263 Tamil schools participating and 60 schools taking part in the National Level Fair. This year we invited the Development of Human Recourses for Rural Areas (DHRAA) Malaysia to be one of our partner organizations for SFYC 2010. The National Level Science Fair 2010 was held at the AIMST University on 4 – 6 June, 2010. We have encouraged the schools to conduct school level science fairs and some schools have done so with the support of the state coordinators. The schools that had organised school level Science fairs and participated in the State Level Science Fair, performed much better than all other schools at the National Level Science Fair.

We were surprised to see the participating students from each zone having improved their presentation and public communication skills. The students brought science to life as they tackled investigative questions through hands-on experiments, helping them develop and demonstrate their interests and strength in science.

We noted many improvements in the thinking process at varying levels, in the schools taking part, among them were:

- Students approached problems using scientific methods.
- Students asked questions, formed hypotheses and created experiments to test their hypotheses.
- Students observed recorded data and drew conclusions from them.
- Students communicated their scientific research articulately & confidently to others.
- Students worked cooperatively as a team of 3-5 persons.
- Students budgeted their time, organised their work into manageable chunks, kept to a schedule and delegated work diligently.
- Students used reading, writing, research and computer skills.
- Students were able to answer the questions in different angles.
- Students were confident during presentation.



13

PROBLEMS FACED

There were some critical and sensitive problems faced by the NSFYC 2010 Organizing/WGC committee during the organising process. This needs to be looked into very seriously so that we could improve in organising better Science Fairs in the coming years. The problems which were faced from the beginning of the project till now are listed below with a brief explanation.

13.1 SFYC FOLDER

- The review section was not well organised.
- None of the WGC members took the responsibility to review it until the training began.
- Too much of last minute work.
- Late submission of new experiments.

13.2 STATE LEVEL SCIENCE FAIR

- Lack of communication
- No problem reporting
- Poor information updating
- Poor minuting of meetings

13.3 JUDGING

- Judging session did not follow the time frame according to the agenda.
- Venue is very congested and delayed the judging process.
- Need more experience judges during the Science Fair.
- Judges were not very cooperative during judging.
- Variation of marks occurred among the judges.
- Many judges did not understand the Tamil language and it was hard for them to judge presentations, log book and report book in Tamil.

13.4 NATIONAL LEVEL EVENT MANAGEMENT

- Lack of communication
- Poor reporting system
- Poor understanding of motives and clear objectives
- Very individual concept
- High self ego of their own teams and very self esteem
- Denomination feelings
- Less understanding level of coalition/ collaboration
- Not clear sense of direction
- Poor ethics

14

RECOMMENDATIONS FOR FUTURE

The Science Fair for Young Children 2010 working group committee would like to recommend some valuable suggestions to future working group committees to have well organised fairs in the coming years.

14.1 WORKING GROUP COMMITTEE

- WGC members are not paid by the National or any state level Science Fairs – only claims are allowable.
- Every important suggestion / decision must be raised at the WGC meeting to get approvals before implementing it even though it was communicated to important persons such as the Project Director/Advisor.
- All WGC members should make decisions for the goodness of the project (Science Fair for Young Children) without bias.

14.2 PARTNER ORGANISATIONS

- Better to have different funders and sponsors for National and State level SFYC.
- All partner organisations should be able to raise or contribute funds (*minimum of RM5,000*) for National Level event if required by the project.
- Publicity from this event should be made equally for all the partners without considering their level of contribution.
- Try to promote the value and importance of SFYC towards the Tamil community and participant empowerment (children) and not just winning.
- Each partner should take responsibility for on one of the following - Training, Event Committee, Secretariat, Publicity or State/Zone Level SFYC, etc.

14.3 SFYC FOLDER

- A team consisting of primary and secondary school teachers, judges and working group members must be formed to review the folder.
- The folder must be ready and updated at the end of December 2010.



14.4 STATE LEVEL SCIENCE FAIR

- Coordinator's payments must be made as per scheduled.
- Zone SFYC reports must be sent two weeks after their zone SFYC.
- Coordinators must avoid getting funding once the accounts have been closed and sent to the central committee.
- All the excess funds which were raised this year must be carried forward to next year and must be included in next year's accounts.
- Prizing category should be minimised to the top 5 to 10 prizes only. This might help us to reduce confusion among teachers during judging.
- Coordinator must send the copy of the minutes of their zone meetings to the working group.

14.5 PROJECT OFFICER / ADDITIONAL STAFF

- Project officers should not be involved in the state level SFYC without permission from the Working Group committee, as it may create some misunderstanding among the organisers and participants. Even though the secretariat takes charge for any zone level project coordination, a new project officer must be hired to coordinate the zone arrangement. The National level project officer must only focus on national level arrangement to avoid too many pending jobs.

14.6 TRAINING

- The coordinators must confirm commitment before assigning them. They must truly understand the nature of the organising science fair.
- The training dates must be fixed during the training for organisers to avoid too many changes later.
- Separate training sessions to be conducted for larger zones.

14.7 JUDGING

- Have a briefing session on judging criteria with the participated school teachers.
- Strictly inform participants that the judges' decision is final.
- Follow the time frame given for judging according to agenda.
- Chief Judge must have a day session with all judges to brief them marking system.
- Must have at least one judge in a team who can read, write and understand Tamil.
- Same group of judges should assess log book, report book and student's presentation.

14.8 NATIONAL LEVEL EVENT DAY

- Select the right person to be the head of departments.
- Clear definition on rules – Key responsibilities to all persons – Deliverable, measurable format.
- Website must be updated frequently and attractive to be surfed.



CONCLUSION

The emphasis is currently on revising and improvising the resource materials based on the experience gained and also encourages all the Tamil schools to conduct school level science fairs. This phase envisioned the expansion of the programme to all Tamil Schools nationwide with the view of conducting several state level science fairs in the 9 zones nationwide in May-June 2010 and the National Science Fair on 4 – 6 June 2010. We have also encouraged the school level science fairs so that we can reach out to more Tamil school students throughout the country. The Science Fair was a great success and we hope that it can be further improved next year with more schools participating.



APPENDIX

A1

A1.1 IMPLEMENTATION

The Northern Region Science Fair for Young Children 2010 was held at the AIMST University on the 29 May 2010. The initial work for the event began in early February. The first task was to set-up the working committee team. The team was coordinated by Mr. Mahesvaran Dorai Singam, a lecturer from AIMST University.

The working committee members consisted of members from Putera MIC Kedah, staff and students from AIMST University and students from University Utara Malaysia. AIMST University played a major part in this event by allowing us to utilize the facilities such as meeting rooms, seminar room and event hall free of charge. Invitation letters were sent to the schools in mid February. Letters were sent via post, fax and e-mails. Responses from the schools were poor at the early stages but after follow up calls to the schools, 25 schools confirmed their participation in the science fair (as of 20 April 2010).

The training for teachers and facilitators was held on 20 March 2010 at AIMST University. A total of 16 teachers participated in the training session which was conducted by a team headed by Captain Vikneswaran and Mr. Aghilan. Schools were given one week to finalize their titles and the selected title was confirmed by schools by 30 March 2010.

Calls to the participating schools were made on the first week of April and school visits began on the second and third weeks of April. A total of 27 facilitators were involved in the school visits. Facilitators from AIMST university visited the schools from Sungai Petani (14 schools) and Kulim (6 schools) whereas facilitators from UUM visited the schools from Alor Setar (5 schools).

The second round of visits was completed by the third week of May. The task of publicizing the event was done in early May through banners, newspaper flyers and face book. Other tasks such as logistics, food and prizes were completed by the third week of May.

The Judging team was headed by Ms. Devaki Sekaran, a lecturer from AIMST University. The team involved 14 lecturers from AIMST and UITM and the judges' training was held on 20 May 2010 and conducted by Ms. Devaki. The judges were paired into 6 groups based on their field of interest and knowledge.

The Northern Region Science Fair for Young Children was successfully organized on 29 May 2010. The event day will be further discussed in the next section.

A1.2 FINANCIAL REPORT OF ZONE 1 (Kedah & Perlis)

INCOME	AMOUNT (RM)	EXPENDITURE	AMOUNT (RM)
Central Committee	4250.00	Operational Cost	
Coordinator Allowance	1000.00	phone calls and fax	412.56
Coordinator Donation	1245.81	Stamps	26.40
		Facilitators Visiting	
		Food	23.90
		Transport	650.00
		Teachers & Facilitators Training	
		Food	120.00
		Stationary	41.55
		Venue	0.00
		Transport (Teachers)	0.00
		Transport (Facilitators)	0.00
		Transport	0.00
		Others	18.00
		Others	
		Invitation cards	50.00
		Tags	480.00
		Publicity	520.00
		Judges Training	
		Food	56.00
		Science Fair Event	
		Hall decoration & set up	256.70
		Prizes	1,890.00
		Cash Prizes	900.00
		Transport	100.00
		Technical	200.00
		Certificates & pamphlets	165.70
		Food	720.00
		Corsage	45.00
		Partition	1,720.00
		Others	100.00
TOTAL	6495.81	TOTAL	8,495.81



APPENDIX

A2

A2.1 IMPLEMENTATION

This project was held for the first time in Penang and it kicked off with the appointment of Penang state coordinator (*Dr. S. Balasubramaniam*). A training session was held at the Tuanku Bainun Teacher Training Institute for facilitators with 30 of them participating. This group did not come forward when contacted (*except for one USM student*) and attempts were made through email and mobile phone. The coordinator got the help of USM students and others from Penang and the group training was conducted professionally for volunteers, facilitators and teachers. The training was held at SJKT Ramakrishna.

The facilitators carried out their first and second visits. Initially the commitment of the 16 schools was not very encouraging but eventually all schools started showing interest by making enquiries perhaps due to the first time involvement of the state. Although the coordinator had the opportunity to meet with the school administrators at various other programmes, some of the schools (other than the 16 schools) declined their participation.

The active participation started about three weeks before the science fair. It was really to get the participation of the teachers and I had difficulty getting people to facilitate in 6 schools around Prai, and I had to send a few teams from Penang to help out the schools.

The science fair saw participation by 15 schools and one school failed to turn up (reason given that their experiment had failed). All the 16 booths (*one by Tamil Foundation*) were set up in the Ramakrishna Hall one day earlier. The response by the public was rather encouraging and other booths were also set up to accommodate the public. The booths were the Consumer Association of Penang (CAP), Anti-Dadah Agensi, DXN, Chess Club, Games and quizzes, Ramakrishna Ashram and Multimedia Presentation. Prior to the science fair, all the judges had a meeting and training. All the reports and log books was collected, arranged and evaluated.

A2.2 FINANCIAL REPORT OF ZONE 2 (Pulau Pinang)

INCOME	AMOUNT (RM)	EXPENDITURE	AMOUNT (RM)
Schools Registration Fee	850.00	Stationary	48.70
Central Committee	3750.00	Transport	165.00
Tamil Foundation	11,342.05	Food & Beverage for Volunteers	150.00
		Training - (Food & Bev.)	
		School Visiting Allowances	450.00
		Miscellaneous	
		EVENT- DAY	
		Hall - Ramakrishna Hall	500.00
		Booth Setup	2,650.00
		Prizes	4,656.15
		Printing	
		(Banner, Cards, Backdrop)	1,160.90
		Security (RELA)	150.00
		Games & Quizzes - Prizes	56.30
		Multimedia Quiz	1,000.00
		Photograph	250.00
		Video Shooting & P.A Sys.	800.00
		Food and Drinks	2,135.00
		Insurance	
		(students, teachers etc)	545.00
		Tag Designing	25.00
		Operational Costs	
		Coordinator's Allowance	1,000.00
		Phone calls	200.00
TOTAL	15,942.05	TOTAL	15,942.05

APPENDIX

A3

A3.1 IMPLEMENTATION

The project was well implemented though there were a few hiccups. On the whole the event in Perak was well organized and coordinated. We had volunteers support from Master Skill Indian students on the event day. We appointed assistant coordinators to take charge of each district about 10 district coordinators. Each district coordinator arranged their own facilitators but were regulated and guided by Perak's main coordination team.

The Project on the whole achieved the objective of raising awareness among the general public on the Science Fair. The fair had created a kind of vibration, interest and enthusiasm among the students and also the general public and erased the negative perception public had about it. The public, the teachers, parents, the community leaders acknowledged and recognized the talent and skills of the Tamil school students in SCIENCE.

The students did not comment much as they enjoyed participating in the events. Some students praised the events as it had given them an opportunity to interact, mingle, exchange ideas and knowledge with other schools and get more information from the display of the other schools. It was a platform for them to develop new friendship among their peers.

The teachers were generally happy judging from the feedback and praised venue, security safety arrangement and the concern shown by the organizers in addressing their issues. The booth set up and arrangement of tables made an impact on them. The teachers were critical of the judging and were of the view that the judges did not view the experiment from the teacher's angle. They suggested that in future one teacher should be included in each judging team.

The public commented that this event was wonderful and created an enormous amount of excitement and interest in science among Tamil school students. Some commented that this is the only event or programmes which united the Tamil schools from north to south and there were NO other programmes which matched this scale. Some parents felt that the Science Fair should not be viewed as a COMPETITION but rather an avenue for Tamil school children to exhibit their talents, capabilities and their mastery skill in science.

A3.2 FINANCIAL REPORT OF ZONE 3 (Perak)

INCOME	AMOUNT (RM)	EXPENDITURE	AMOUNT (RM)
Schools Registration Fees	2,650.00	Stationary	-
Central Committee	12,500.00	Transport	1,754.60
Coordinator Allowance	1,000.00	Food & Beverage	
Tamil Foundation	15,514.60	(Coordinators' Meeting)	400.00
		Training	995.00
Mr. Mahendran	400.00	Phone / Prepaid	1,800.00
Dr.Bala	100.00	Postage	-
Mr.Thiru	2,200.00	School Visiting Allowance	
Dr.Jayabalan	300.00	(34 schools)	4,560.00
Mr.Manoharan	500.00	Miscellaneous	33.20
Mr.AMS Nandha	4,000.00		
Mr.Gopi Ramasamy	1,000.00	EVENT- DAY	
		Hall – (Masterskills)	370.00
Dr.Vasan	250.00	Booth Setup	5,700.00
Dr.Sarkunathas	500.00	Prizes	5,780.00
Mr.Susi	300.00	Printing	
Mr.Thaniga & Team	200.00	(Banner, Backdrop, cards)	2,717.10
Mr.Tazan Lawyer	150.00	Security (RELA)	-
Tamil School Teachers	300.00	Traffic & Parking	
Mr.Kumar	400.00	Management	-
		Games & Quizzes - Prizes	140.70
		Multimedia Quiz	1,000.00
		Photograph	22.00
		Video Shooting	400.00
		Media	300.00
		P.A. System	-
		Food	4,240.00
		Insurance	
		(students, teachers etc)	1,007.00
		Volunteers' Transport	
		Claiming	-
		T-shirt	1,020.00
		Tag Designing	25.00
		Operational Costs	
		Project Officer Allowances	9,000.00
		Coordinator's Allowances	1,000.00
TOTAL	42,264.60	TOTAL	42,264.60

APPENDIX

A4

A4.1 IMPLEMENTATION

The Science Fair for the central zone was held at Dewan Serbaguna (Kelab Kilat Kuala Lumpur), Tenaga Nasional Berhad, Bangsar, on 2 May 2010. The Tamil Foundation was the main organiser for Selangor (Zone 4) and Kuala Lumpur (Zone 5). The Selangor and Kuala Lumpur state level Science Fairs were implemented in 3 phases.

Phase One: Training

At the beginning of the year, letters were sent out to all 97 schools in Selangor and 15 schools in Kuala Lumpur to inform them about the Science Fair 2010 and to invite the teachers for training. The teachers' training was held twice. -- 13 February at the 2nd College, Universiti Malaya where 55 teachers from 43 schools attended the training while 27 teachers from 20 schools attended the second stint on 6 March 2010. The schools were given 2 weeks to submit their titles and started their experiments after getting approval from the secretariat.

Meanwhile, trainings were conducted separately for the facilitators and judges. A total of 30 facilitators and 35 judges attended the training.

Phase Two: School Visiting

Trained facilitators visited participating schools and their main task was to assist and guide the students on their experiment. The first visit was at the end of March and the second was during the third week of April. Report book and copy of the logbook were collected during the second visit.

Phase Three: Event-day – State level Science Fair

This year a total of 70 schools registered to participate in the State Level Science Fair. However, only 68 teams turned up on the event day. SJKT Ghandiji and SJKT Sungai Buaya withdrew from the competition at the last minute, as they were disappointed with the negative outcome of their experiments.

On the event day, the registration counter was opened at 7.30am and the registered teams were given breakfast. Participating teams were given one hour to set up their booths and Judging at 9.00am with 36 judges divided into 9 groups.

Experiment presentation and delivery of knowledge by our Tamil school students amazed the judges. They had a tough time deciding on the best when the judging was over at 12pm, the Fair was opened for public viewing.

State Coordinator Mr.C.M.Elanttamil in his opening speech thanked the school management and our Tamil schools' well-wishers who made our dreams come true.

State level Project Director, Mr.S.Kaneswaran said this programme inspired our Tamil school students to widen their knowledge in the field of Science and Mathematics through continuous research and learning.

Our guest of honour, Prof Madya Dr.Irmawati, Director of the National Science Centre said the programme enhances and sharpens the scientific knowledge possessed by the students and it should be continued.

Selangor state exco member, YB. Dr. Xavier Jeyakumar officiated the Selangor and Kuala Lumpur state level Science Fairs for Young Children 2010. In his opening speech YB he said the programme had given the right platform for the kids to establish themselves as young scientists.

This year, all the participants were awarded in honour of 6 Tamil scientists namely APJ Abdul Kalaam, Annadurai, Sir C.V. Raman, Ramanujam, Subramanian and G.K.Naidu. The best three teams from Kuala Lumpur and the best five teams from Selangor were chosen. SJKT San Peng emerged the champion from for Kuala Lumpur while SJKT Methodist, Kapar took the championship for the Selangor zone.

The other winners are:

Zone	Selangor	Kuala Lumpur
Champion	SJKT Methodist, Kapar	SJKT San Peng
1st Runner-up	SJKT Taman Permata	SJKT Segambut
2nd Runner-up	SJKT Teluk Merbau	SJKT Ladang Edinburgh
3rd Runner-up	SJKT Kajang	
4th Runner-up	SJKT Batu Ampat, Klang	

A4.2 FINANCIAL REPORT OF ZONE 4 & 5 (Selangor & Wilayah)

INCOME	AMOUNT (RM)	EXPENDITURE	AMOUNT (RM)
Schools Registration Fee	3,000.00	Stationary	2,141.95
Central Committee	17,000.00	Transport	1,158.55
Donation	20,200.00	Food & Beverage for	
Tamil Foundation	30,082.75	Volunteers	801.10
		Training - (Food & Beverage)	877.00
		Phone / Prepaid	630.00
		Postage	120.00
		School Visiting Allowances	7,830.00
		EVENT- DAY	
		Hall - TNB Bangsar	3,350.00
		Booth Setup - YY System	13,000.00
		Prizes	14,165.75
		Printing	3,804.10
		Security (RELA)	320.00
		Traffic & Parking	
		Management	165.90
		Games & Quizzes - Prizes	197.00
		Multimedia Quiz	1,000.00
		Photograph	560.00
		Video Shooting	850.00
		P.A. System	600.00
		Meal (Breakfast & Lunch)	3,890.00
		Insurance	
		(students, teachers etc)	1,175.00
		Volunteers Transport Claim	121.40
		Miscellaneous	
		(T-shirt, Tag Designing)	1,725.00
		Operational Cost	
		Project Officer Allowances	7,600.00
		Assistant Project Officers	3,200.00
		Coordinator's Allowances	1,000.00
TOTAL	70,282.75	TOTAL	70,282.75

APPENDIX

A5

A5.1 IMPLEMENTATION

Date	: 22 May 2010
Time	: 8.00 am – 5.00 pm
Venue	: SJKT Ladang Seremban
Participants	: 23 Teams
State Level Organizers'	: MGB Sekolah Tamil Negeri Sembilan
Guest of Honor	: Mr S.Mathavan (Organiser of Tamil Schools, State Education Department, NSDK.)

The response from the schools was encouraging compared to last year. 23 teams from 19 schools took part in this competition which was held at state level. The winners were given cash and trophies and the rest of the participants were given souvenirs and certificates.

The organizing committee (MGB SJKT/NS) had a few meetings to polish up and finalize the smooth running of the competition. The committee faced some financial constraints and difficulties in setting up the science booths.

The science teachers (head of science panel) were given adequate briefing by the organizing committee two months prior to the competition at SJKT Lobak. The students were well trained by the respective schools and their presentations were also commendable.

The science fair should be 100% students work with guidance by the teachers and not by outsiders (*person/ parents who are professionally trained*). The budget for each project should be given a maximum and a minimum. Inform the state organizing committee at least 6 months in advance about the date and venue of the competition.

The budgeting should be discussed earlier and assisted by the national organizers. The budget allocated for this year is not enough to cover the overall cost of the competition as the state organizing committee is committed to other events throughout the year for the benefit of the Tamil Schools with limited resources. If we spend much on this fair, we will not be able to carry out other projects as planned.

A5.2 FINANCIAL REPORT OF ZONE 6 (NEGERI SEMBILAN)

INCOME	AMOUNT (RM)	EXPENDITURE	AMOUNT (RM)
Central Committee	4,500.00	Booth (wood)	6,500.00
MGBST NSDK	6,648.50	Printing Tags	518.00
		Foods and Drinks	1,970.00
		Hampers	40.00
		Cash Prize (1-5)	1,200.00
		Trophies	562.50
		Backdrop	120.00
		Photostat	8.00
		Cleaning Services	230.00
TOTAL	11,148.50	TOTAL	11,148.50



APPENDIX

A6

A6.1 IMPLEMENTATION

The state level science fair 2010 in Melaka was organised for the first time by placing Melaka in a "stand-alone" zone. For the past 2 science fairs, the Tamil Schools in Melaka could not participate in this programme as Melaka and Negeri Sembilan was combined as a zone. Despite assistance being given to the organisers in 2009 the Science fair was a miserable failure.

The Melaka State Level Science Fair was organised by Putera MIC Melaka and Melaka Indian Education Society (MIES). The programme was held in at the Melaka planetarium on 30 May 2010 which attracted participation from all the 21 Tamil Schools in Melaka.

The event was graced by the Honourable Melaka Chief State Secretary YB Datuk Wira Hj Omar bin Kaseh on behalf of the Melaka Chief Minister who could not attend due to unforeseeable circumstances.

Others present were YB Datuk R.Perumal, Melaka State Exco Member and Melaka State MIC Liaison Chairman, Datuk R.Raghavan, MIES Chairman, Mr. Aloyxious Xavier, Melaka HM Council President; Mr. V.Anantha Kumar; Assistant Director Tamil Language Jabatan Pendidikan Melaka and Mr. M. Asogan; Penyelia Kanan Bahasa Tamil.

The closing ceremony was officiated by YB P.Kamalanathan; Hulu Selangor Member of Parliament and Putera MIC National Chairman and Dr. Aluwi, Managing Director of Melaka Planetarium.

In an effort to ensure that all 21 Tamil Schools participated, the organisers had to overcome much problems. After the first teachers and facilitators training session that was held on 27 March 2010 at Kolej Komuniti Selandar, only 8 schools confirmation their participation. With assistance from Datuk R.Perumal and Datuk R.Raghavan the Tamil School Headmasters were personally asked to participate. The reasons given by the Headmasters were totally unreasonable and some of them just informed that they had no time as there were many school activities.

The teachers and facilitators trainings were conducted simultaneously. The training was participated by 19 out of the 21 schools and the only problems faced by the teachers were that most of them did not come from the Maths and Science Background. This was because a separate training/course was being conducted by the Melaka Education Department for all Maths and Science Teachers. The facilitators were mainly from University Technical Melaka (UTeM) and a total of 10 facilitators assisted Putera MIC Melaka in assisting the Tamil Schools. District zone coordinators were also appointed to monitor the facilitators and to liaise with the schools in their district. More than 5 visits were being done by the facilitators visited each school more than five times to ensure and monitor their progress.

As the facilitators faced many problems, the second training session was held on 15 May 2010 to clear doubts and to further facilitate the schools. The training was personally handled by Mr.Saminathan;

National SFYC Project Directors with assistance from MISI. The training was also attended by several Headmasters as invitations were extended to them and was attended by 18 schools.

Base on the facilitators' feedback, there was a lack of commitment and support from several schools to participate in this programme even to the last 10 days before the State Science Fair. The organisers had no choice but to postpone the event from 23 May to 30 May to ensure participation from all schools.

The judges' training was conducted on 22 May 2010 at UTeM and they were all professionals including Professors from UTeM. This was to ensure that there will not be any compromise in the judging criteria and quality.

The Science Fair in Melaka was a huge success as we noted the participation and commitment of the schools at the last minute.

At least 1,000 people including parents, teachers, students, exhibitors and general public attended the programme and the success was due to the publicity. It cost RM10, 281.80 to stage the event.

The cost could have gone up if external sponsorship and assistance was not obtained. The Melaka Planetarium reduced their price from RM 5,000 to RM 1,500. Others like UTeM gave us tables, chairs and display boards at no cost, Menara Taming Sari, Perbadanan Sungai Melaka and Magnum Corporation.

The winners of the 1st addition Melaka State Science Fair went to SJK (T) Jasin. Second and third placing went to SJK (T) Kubu Melaka and SJK (T) Ldg. Sungai Baru respectively. Prizes were given to all six finalists to the National Science Fair and an additional five categories were also given prizes.

All schools attending the National Science Fair Competition were greeted and treated to breakfast by YB Datuk R.Perumal on 4 June before their departure home.

A6.2 FINANCIAL REPORT OF ZONE 7 (MELAKA)

INCOME	AMOUNT (RM)	EXPENDITURE	AMOUNT (RM)
Central Committee	5,250.00	Coordinator Allowance	300.00
YB Datuk Yaakub Md. Amin	1,000.00	Facilitator Allowance	300.00
YB Datuk R.Perumal	2,631.40	Medal/Trophy/Souvenir	720.00
MIES / Datuk R.Raghavan	1,000.00	Souvenir for CM/	
Coordinator Contribution	400.40	Datuk Raghavan/YB Perumal	145.00
		Rental of Venue /	
		Planetarium Tickets	1500.00
		Cash Prizes	1000.00
		Food	
		(During Science Fair Day)	1685.00
		Photostat/Printings	127.70
		Bunting Printing	336.00
		Backdrop Printing	200.00
		Opening Gimmick expenses	500.00
		Purchase of winning prizes	39.50
		chocolate for Teachers Day	95.60
		Stationery	82.80
		Teachers Training	
		(Venue & Food)	800.00
		Exhibitor / Judges /	
		Organizer Tags & Prizes	116.00
		Cleaners (Planetarium)	40.00
		Lorry Transport	260.00
		Meal Ticket Chop	14.30
		Lunch - Final Briefing	58.70
		Camera Battery	5.60
		Conqueror Paper	15.00
		Gimmick Chip	26.50
		Video Cam Charger	80.00
		Lunch - Pre-SFYC Preparation	46.00
		Wire & 2 players	10.40
		Buntings stand	44.00
		Extension audio system	30.30
		Additional prizes	
		- 4th, 5th & 6th placing	57.00
		Breakfast -	
		National SFYC Participant	146.40
		Provision for Study Trip	
		- state finalists	1500.00
TOTAL	10,281.80	TOTAL	10,281.80

APPENDIX

A7

A7.1 IMPLEMENTATION

Pre - Program Preparation

To ease communication among schools and the organizing team, volunteers from Maktab were divided into seven groups, each consisting of ten members. Information was passed to one leader, and to all volunteers to inform the necessary parties. Information was communicated via phone calls and also email. To ensure that each of the tentative below goes well, a short meeting among the organizing teams was held a week before the scheduled date.

Headmasters/Headmistresses Meeting

The Headmasters/Headmistress meeting was held on 16 January 2010 at UTHM. Headmasters/headmistress from all the 70 Tamil schools in Johore attended this seminar which was held by Dr Subramaniam. They were briefed on how the Johore state level SFYC 2010 will be conducted, and were provided with a brief tentative programme from 16 January 2010 till the day of event. We had full support from the attendees to participate in the school level SFYC 2010. Certificates, prizes and souvenirs were given to all headmasters/headmistress to be given away to the school level winners.

Teachers' Training

Teachers' training was conducted on 6 March 2010 at UTHM. Dr Subramaniam who was in charge of this training session, briefed the teachers on the flow of the programme. He also stressed on the

importance of the format of the log book and report. Teachers were told their responsibility and how to monitor their students. Also present in this session was Associate Professor Subramaniam who conducted an interesting session, on teaching science creatively. His session stressed on how creative and interesting teaching methods, could help the students grasp science subjects easier.

Facilitators' Training

This training session was held on 15 March 2010. Volunteers from three universities namely UTHM (25), UTM (15) and Maktab (10) attended this briefing session. Volunteers, who had participated in this programme last year, explained FINANCIAL REPORT and their responsibilities and necessary materials such as the experiment lists were given the volunteers.

The school visits were conducted from 30 March 2010 till the day of event. Second visits could not be completed in certain schools; nevertheless facilitators were in touch with the respective schools to help and advice the students if necessary.

Log Book and Report Collection

Log books and reports were collected on 30 April 2010. Schools had sent their materials to collection stations as briefed earlier. Volunteers collected these materials from the collection centers and these were then passed to Dr Subramaniam for evaluation.

Judges' Meeting

Judges' meeting was held at SJKT Tun Aminah on 1 May 2010. Judges were briefed on the evaluation schemes and the session was led by Dr Subramaniam. Evaluation of the log books and reports collected was conducted on that day, after the briefing.

A school level programme was introduced to the event this year. This event includes students of the lower primary level and a special quiz that was prepared by Dr Subra was distributed to all 70 participating schools, together with the certificates, prizes and souvenirs on the day of the headmasters/ headmistresses meeting. The duration of this event was from 15 – 27 February 2010.

About 14,000 students participated in this event and we receive good feedback from this programme. Neighbouring school teachers were assigned as judges, in the school level SFYC 2010.

The Johore state level SFYC 2010 was held at Universiti Tun Hussein Onn on 9 May 2010. It was graced by Johor Menteri Besar Yang Amat Berhormat Dato' Haji Abdul Ghani bin Othman and the event started at 11.00am, with the opening speech and ended at about 6.00pm. In total, 70 teams participated in this programme and hampers were given away to teams that made their way to the top six, till the 40th placing. The top five teams walked away with cash prizes, popular bookshop cash vouchers and hampers. Below are the top five winning teams.

First	SJKT Tun aminah
Second	SJKT Masai
Third	SJKT Tun aminah
Fourth	SJKT Masai
Fifth	SJKT Mengkibol

A7.2 FINANCIAL REPORT OF ZONE 8 (JOHOR)

INCOME	AMOUNT (RM)	EXPENDITURE	AMOUNT (RM)
Central Committee (School Level)	21,000.00	Prizes	35,878.00
Central Committee (State Level)	14,750.00	Food and Drinks	13,506.40
UTHM	13,000.00	Halls	13,000.00
Mr.Raja	12,000.00	Booths	11,500.00
Mr.soros Kim	6,900.00	Students' Goody Bags	8,850.00
Mr.Vererah	5,000.00	T-Shirts	6,210.00
Mr.Elan Ko	3,000.00	Facilitators' Claims	5,195.00
Mr.Thenarasoo	2,278.00	Phone Calls	1,630.00
Datin Sornavalli Krishnasamy	1,500.00	Souvenirs	1,504.00
Mr.Ravin Chandran	1,500.00	VIP Receiving	1,000.00
Mr.Baskaran	1,500.00	Photocopy,Banner,Bunting	1,035.20
Raja Mariamman Temple Committee	1,475.00	Stationeries	207.55
Dato Randir	1,000.00	Medical expenses	80.00
Mr.Steven	1,000.00		
Mr.Vijay	1,000.00		
Johor SFYC Committee	12,693.15		
TOTAL	99,596.15	TOTAL	99,596.15

APPENDIX

A8

A8.1 IMPLEMENTATION

Science Fair for Young Children 2010 - Zone 9 Pahang hosted the event for the second year running on 23 May 2010 and it was organized by the Tamil Foundation with collaboration of the Pahang Headmasters Council. Following are the details of our implementation of the project.

Teacher's training

- 13 March 2010 (Saturday).
- Held at 2 venues after a request from Majlis Guru Besar (MGB) Pahang.
- The morning training was held at SJK (T) Raub and the afternoon session at SJK(T) Bandar Mentakab.
- 29 schools out of 37 tamil schools were been invited to attend the training.

Facilitator's training

- Facilitator's training was held on the same date as the teacher's training.
- Students and school leavers were invited to attend.
- No Facilitators attended the training.

Formation of State Level Working Committee (SLWC)

- First meeting of SLWC was held on 24 April 2010.
- Attended by 10 volunteers consisting of businessman, professionals, and teachers.
- Structure based organization committee was formed and duties were assigned.

- Due to limited tasks compared to previous years, the committee meeting was held once only.
- 3 sub coordinators were appointed to delegate jobs to others. They are Publicity and Marketing Coordinator, Technical Coordinator and Event Coordinator.
- The Publicity and Marketing Coordinator was in-charge of the Publicity and Sponsorship department.
- The Technical Coordinator was in-charge of Security & Parking Department, Technician & Audio Visual Department, Floor Manager and Rental of Items.
- The Event Coordinators was in charge of registration, Event Manager, and Food and Beverages Department.

Facilitator's Visiting

- 7 facilitators were involved in visiting schools for the science fair.
- First visiting was scheduled and was held from 12 – 28 April 2010.
- The facilitators gave their response and feedback after the first visit to schools to state coordinators.
- The second visit was held from 10 – 18 May during the final week before the state level science fair.
- During the second visit the facilitators collected the schools project book and log book.

Judge's Meeting

- Mr. Prem Kumar who was appointed the chief judge for Pahang SFYC 2010, had meeting with all the judges on 15 May 2010.
- There were other 5 judges comprising of an engineer, a doctor and two pharmacists from Hospital Sultan Ahmad Shah, Temerloh and a Secondary school Teacher.

Science Fair Day

- 14 schools throughout Pahang comprising 17 teams registered and took part in SFYC 2010 -- Zone 9.
- SJK (T) Bandar Mentakab sent 3 teams while SJK (T) Bandar Indera mahkota were represented by 2 teams.
- 20 Secondary School students and 15 undergraduates volunteered themselves to help facilitate during the science fair.
- The secondary school students were from Sek. Men. Hwa Lian, where the event was held. We got the school hall for a discounted rate because we applied through the Tamil Society of the school.
- The volunteers were from the Tamil Society of the school and Police Cadets of the schools.
- The cadets were put in charge of parking and security while members of the Tamil Society helped in the arrangement of the hall, partitions, cleaning and were in charge of food.
- A rehearsal for the science fair was held on the eve of the event.
- Event coordinators explained the sequence of events to all the facilitators who will help out in the science fair.

- very facilitator was delegated work during the event day.
- The fair started on time and participating schools where given a briefing after their registration.
- They started their booth preparation and decoration on time.
- The event day was divided into 3 parts: Part 1 (morning) -Judges evaluation, Part 2: Public Viewing (afternoon) Part 3: Closing ceremony.
- Part 1 started 30 minutes late as schools requested time for preparations. Judges evaluation finished later than planned.
- Part 2 started as early as 12.30pm even though judges evaluation was not completed.
- During public viewing, 3 competitions and a lucky draw were held. The competitions were a science treasure hunt, science quiz, mathematic puzzle, and best booth nominee lucky draw.
- The Multimedia quiz was initiated by the Tamil Foundation Facilitators and was conducted for non-participating students, teachers and also parents. This event attracted a lot of students and viewers.
- Part 3: closing ceremony started at 3.00pm and finish by 4.30pm.
- Our chief guest was supposed to be Tamil Foundation president, Mr. Uthayasooriyan but unfortunately due to a last minute commitment, he was unable to come and was represented by Tamil Foundation Treasurer, Mr.Ragavan.
- After the event ended, the cleaning of the hall was completed the by 6.30pm.

A8.2 FINANCIAL REPORT OF ZONE 9 (Pahang)

INCOME	AMOUNT (RM)	EXPENDITURE	AMOUNT (RM)
Central Committee	3500.00	Operational Costs	
Participation Fee	650.00	Coordinator Transport	
Tamil Foundation	4745.00	allowances	500.00
Donation (Various)	898.00	Administrative	
		Cost & Stationary	327.65
		Stamps	49.00
		Teacher's & Facilitators Training	
		Hall	0.00
		Food	110.00
		Stationary	0.00
		Facilitator's Visiting	
		Transport Allowance	760.00
		Science Fair Event	
		Hall	500.00
		Publicity	160.00
		Name Tag	0.00
		Invitation Pamphlets	350.00
		Partitions and Chairs	315.00
		Food	0.00
		Prizes and Souvenirs	6292.55
		Bookmark	
		Technicians	200.00
		Miscellaneous	228.80
TOTAL	9,793.00	TOTAL	9,793.00

Income and Expenditure Account for the period of 1st January to 30th November 2010.

INCOME	AMOUNT (RM)	EXPENDITURE	AMOUNT (RM)
Income	287 875.00	Accomadation	4680.00
		Annual project report book	1480.00
		Audio & Visual	8550.00
		Audit fee	1200.00
		Bank Charges	117.00
		Booth set up	16000.00
		Coordinator allowances	8000.00
		Depreciation	1151.50
		EPF & SOCSO	1655.10
		Insurance	1175.00
		Launching Ceremony	3200.00
		Meals	23531.36
		Medical Fees	40.00
		Miscellaneous	370.05
		Postage, Courier & Stamping	325.87
		Printing & Stationary	18649.52
		Prizes & Souvenirs	25840.80
		Rental	3550.00
		Research & Development	3848.12
		Salary & Allowances	37560.93
		School Allocation	23100.00
		stamp Duty	30.00
		Telephone	2565.62
		Travelling & Transportation	37165.75
		Volunteer Recruitment	948.70
		Zone Allocation - Johore	14750.00
		Zone Allocation - Kedah	4550.00
		Zone Allocation - Malacca	5250.00
		Zone Allocation - Negeri Sembilan	4500.00
		Zone Allocation - Pahang	3500.00
		Zone Allocation - Penang	3750.00
		Zone Allocation - Perak	12500.00
		Zone Allocation - Wilayah & Selangor	14900.00
TOTAL	287,875.00	TOTAL	288,435.32
		DEFICIT	560.32



Balance Sheet for the period of 1st January to 30th November 2010.

NON-CURRENT ASSETS

	Note	RM
Property, Plant and Equipment	3	4605.60

Current Asset

Other receivables	100.00
Ammount due to TUMBI Project	10941.35
Amount due to MISI	1647.50
Deposit	275.00
Cash in hand and Bank Balance	1157.60
	14121.45

Current Liability

Other Payables	16588.20
Net Crrent Liability	(2466.75)
	2138.85

Financed by :

Accumulated fund	2138.85
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APPENDIX

B

The Research and Development (R&D) team has carried out an investigation on ways to improve the National Science Fair for Young Children (NSFYC) which was held at in AIMST University, Sungei Petani, Kedah from 4 JUNE until 7JUNE 2010. They conducted a set of surveys during the event which included; participating students, teachers, parents, visitors and volunteers, facilitator and organizers.

The teachers and students were approached on the first day of the event. On the second day, we covered the rest consisting parents, visitors, volunteers, organizers and facilitators. The respondents were chosen at random, but evenly distributed among the states according to the ratio of the schools that participated. The survey was completed successfully with the cooperation from approximately 80 respondents and all R&D team members.

R&D advisor

Dr. Yunus Yasin

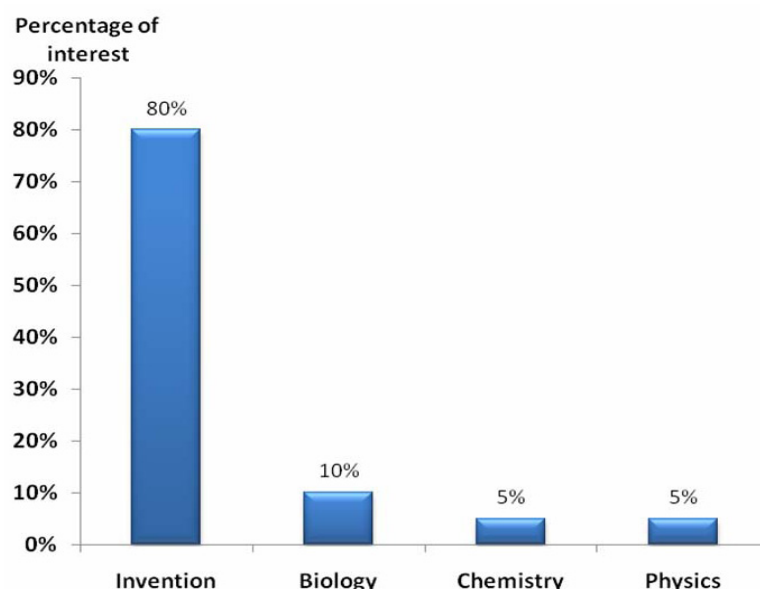
R&D team members involved

Sivasangkary a/p Gandhi
Ahgilan a/l Manathan
Vijendren a/l Krishnan
Girupakaran a/l Sivalingam
Tanabalan a/l Vadamalai
Shubashini a/p Annamalai

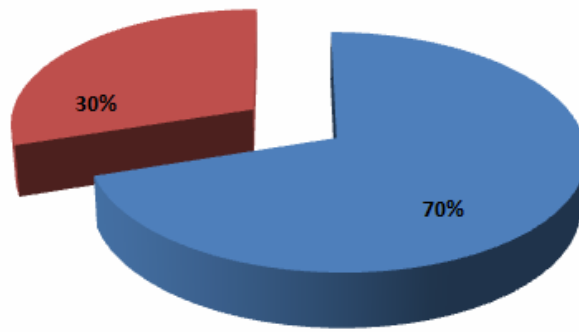
B9.1 SURVEY OF PARTICIPATING STUDENTS

- Report format is summary based on questions sequence

- Q1.** Most of the students felt happy (90%) and anxious (10%) before the programme. During SFYC, the majority felt exhausted but enjoyed the event at the same time and went back motivated after SFYC. This shows that SFYC instilled deep motivation and provide experience for the students.
- Q2.** 75% of the pupils preferred to share their experience and knowledge that they gained from SFYC with their family, school mates and friends only. The rest of the students which is 25% would share their knowledge with everyone including relatives.
- Q3.** Research showed that 100% of the surveyed students found SFYC to be very useful towards their studies.
- Q4.** SFYC have encouraged all the students to watch educational TV programmes and surf the internet for more information. Besides, 20% of these students also took part in other academic events as well.
- Q5.** Diagram below shows knowledge that the students remembered by involving in SFYC.
- Q6.** The type of experiments that the students would like to carry out was also analyzed. Based on the results, most of the students preferred to do invention type of experiments such as creating a flying plane and amphibious vehicle. This was followed by biology related experiments which involved living things like plant FINANCIAL REPORT s and animals. Chemistry (acid and base) and physics (electrical and mechanical) related experiments drew little attention among primary school students.

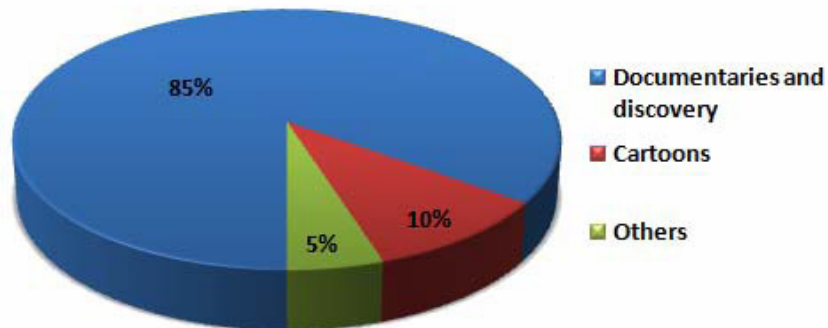


- Q7.** Research also showed says that most of the students (90%) are interested in mathematics related experiments whereby another 10% were not keen and they felt that it would be very difficult.
- Q8.** Participated students claimed that they got 100% support from their schools in terms of finance and moral support. According to them, the teachers were very helpful with their projects.
- Q9.** From the research, we found that, 70% of the students allocated time for other educational activities outside school while 30% do not have any activities.



Percentage of students allocated time for additional educational activities.

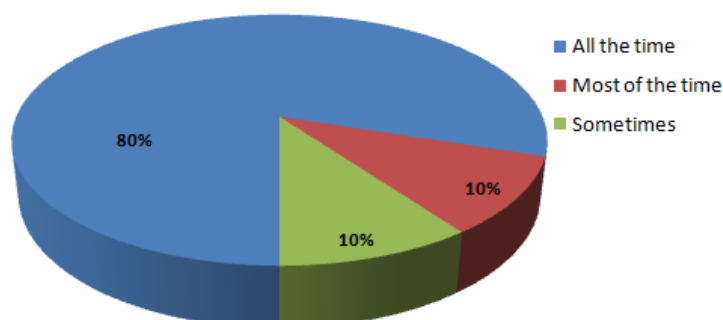
- Q10.** Diagram below shows the type of TV programmes that attracts students. According to the survey, Students watch documentaries and discoveries programme.



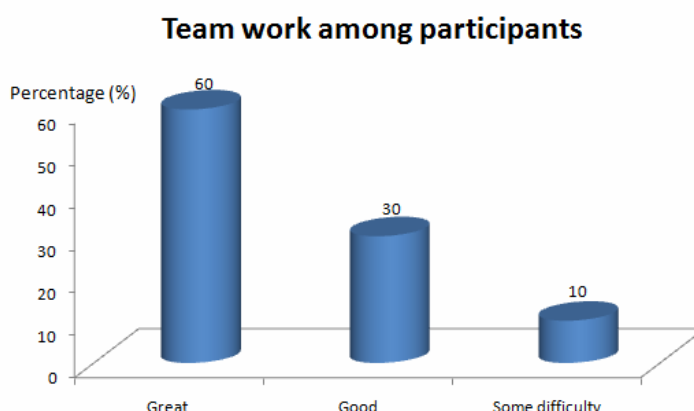
TV Programmes that attracts students

- Q11.** The survey indicated that, most of the students (90%) would like to take part in SFYC in future as participants even though they know that they will not qualify since they will be in Standard 6. Whereas, another 10% of the students would like to attend SFYC as supporters.
- Q12.** All of the participated students said they will recommend SFYC to others because they want to share the knowledge that they had gained.
- Q13.** Winners ranking and prize giving is necessary in SFYC according to all of the surveyed students.
- Q14.** The participating students (100%) said that they had completed their projects successfully. This shows that the students have put a lot of effort and have high confidence with their work.
- Q15.** Based on our survey, most of the students discussed their SFYC projects with their parents. Diagram below shows percentage of time spent with their parents.

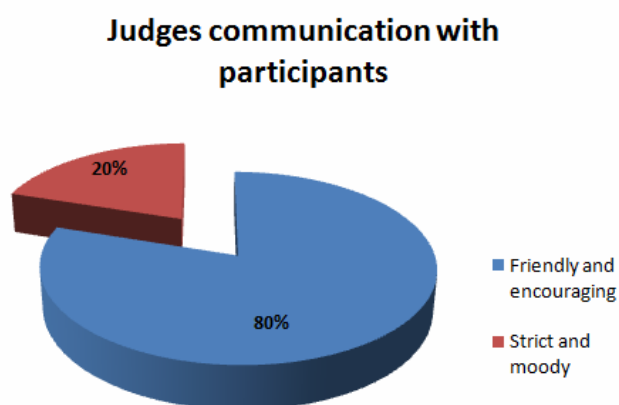
Time spent with parents discussing about SFYC



- Q16.** Co-operation among team members was evaluated based on team work. Survey revealed that most of the participants learnt team work and a small percentage of the participants have some difficulties working in a team.



- Q17.** Science Fair for Young children has provided great experience among large number of participants (90%) while another 10% rated SFYC as a little difficult. This small group of participants found it a little difficult probably due to their first time participation in SFYC.
- Q18, 19 & 20.** NSFYC 2010 seems to be satisfying for most of the students. Research showed that food, accommodation, facilities, venue and environment were very good except 10% of the students felt that the food selection was poor. This shows that, AIMST University is a suitable place to conduct the event. In future, some other universities will also can be considered to conduct NSFYC.
- Q21.** Participant responded that most of the judges (80%) are friendly and encouraging, whereas another 20% said they are strict and moody. This matter needs to be taken into serious consideration because evaluation by judges may vary according to their strictness and linearity.



- Q22.** Based on our research, respondents gained a lot from the event. Most of them gained by conducting scientific projects and working with science equipment and 20% of the participants benefited by sharing their knowledge with judges and the public.
- Q23.** Participants were generally very satisfied with NSFYC and felt that SFYC is a programme which provides knowledge and lots of benefits for them. As to improve NSFYC, we were requested to organize the event at more spacious halls, and participants needed more time to set up their booths.

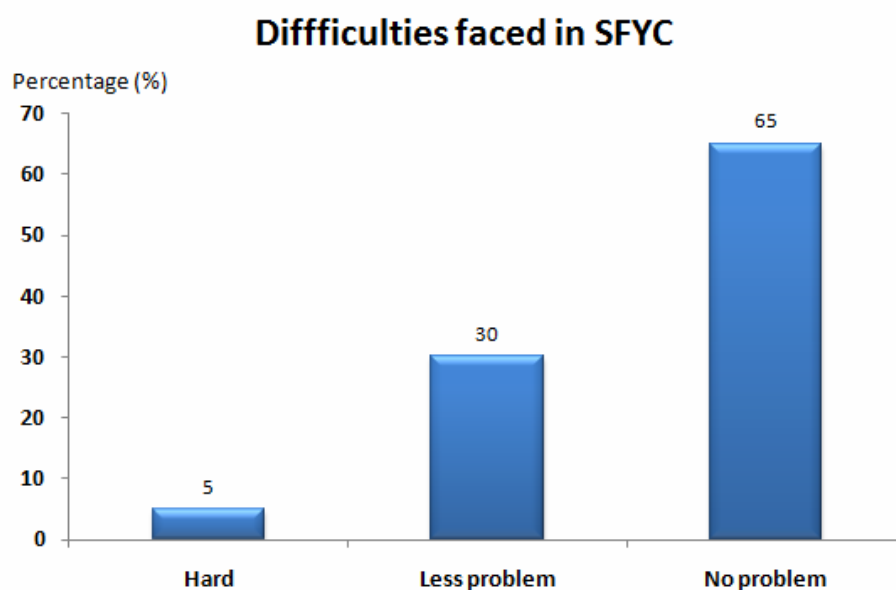


Summary:-

Students who participated in the SFYC 2010 claimed to be happy and are anxiously waiting for this programme to take place. During the programme they felt excited and learnt a lot at the end of the day, they all went back very motivated. The students would like to do much better in future. The knowledge and experience gained from SFYC provoked the students to share their experience with family, friends and relatives and recommended this event to others. Majority of the students reported SFYC contributed to their studies in an excellent manner. In fact, they have started to watch more discoveries and documentaries based programmes and even surfed the internet for more scientific information. One thing for sure most of the participants would love to come back and join SFYC 2011. The students were satisfied with their project performance and found parents and school to be very helpful in accomplishing the task. Good cooperation and teamwork gave all of them a great SFYC experience. Most of them were very happy with the food, accommodation facilities and event environment although the minority felt the food served was poor. On their opinion about the judges, many were very comfortable with judges as they were friendly but some students claimed the judges were too strict and moody. The aspect they like most from SFYC was the students had hands on experience with scientific equipment. Ways to improve, space factor, time frame and materials in experiments are discussed in Section B.

B9.2 SURVEY OF VOLUNTEER, ORGANIZER, FACILITATOR

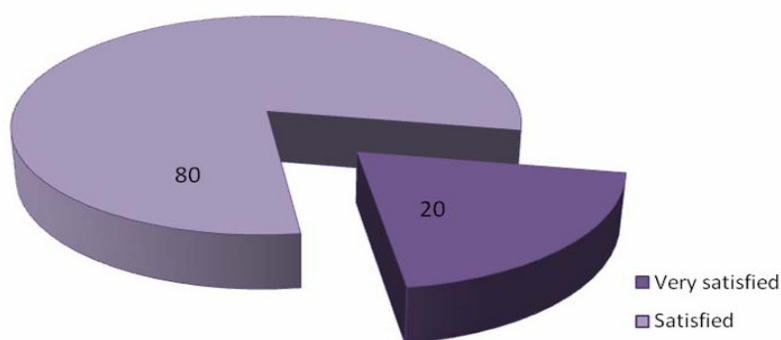
- Q1.** According to the survey questionnaire, there were few factors that encouraged individuals to join SFYC. The inspiring factors to join SFYC were to help and support the participants, to improve the standard of our community and gain experience to organize such events.
- Q2.** Only a small number of volunteers, organizers and facilitators faced a lot of problems in organizing the event. Whereas, more than half in the team had no difficulty in organizing the event. Generally, SFYC can be carried out with little or no problems with the current organizing system.



- Q3.** Research also reveals some important points that need to be taken into serious consideration. From our survey, it has shown only 20% of the schools are giving good cooperation, but most of the schools are not cooperative. Thus, it is our responsible to clarify the purpose and importance of our programme for the young generation. This step might increase the level of cooperation between schools and facilitators and organizers.

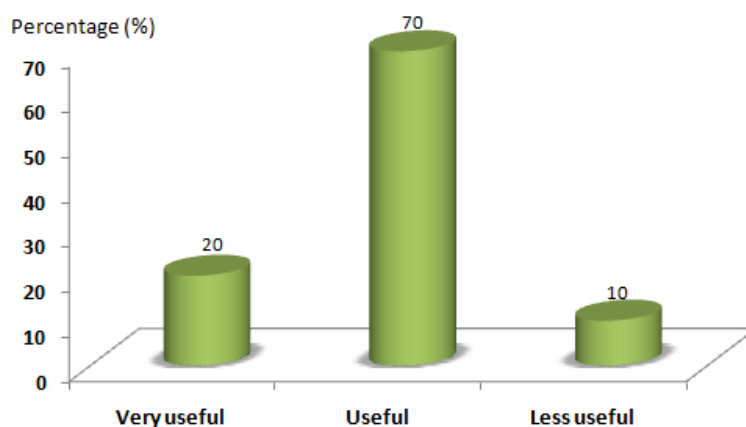


Cooperation from schools



- Q4.** Most of the surveyed volunteers, facilitators and organizers find SFYC as very important for the community. But 10% of the respondents find it more or less important. But none said that the programme as not important at all. This shows, SFYC is doing an effective job for the improvement of our society, particularly in the field of science and technology.
- Q5.** Some of the individuals would like to contribute their help as facilitators and some want to shoulder more responsibility and join the organizing team in future. This shows that our programme has created an awareness and motivation among individuals to work together in order to improve the education of our future generation.
- Q6.** Diagram below shows support given from NSFYC committee to state level SFYC committee. High percentage of respondents finds the NSFYC committee support useful or very useful. A small percentage of respondents did not get enough support from NSFYC. Thus, the NSFYC committee needs to cooperate and provide more help for the state level facilitators and organizers.

NSFYC committee support



Summary:-

Individuals were encouraged by the objective of SFYC to join the programme. Most of the individuals enjoyed working with other members of SFYC. There were few comments given to improve SFYC in future. It was said that registration was time consuming and not well organized. According to the volunteers, facilitators and organizers bigger halls should be dedicated for the event. Schools that are not aware of SFYC should be informed and invited to join the upcoming SFYC. Funding support for small schools or schools with fewer students should be taken into serious consideration. Facilitators were very keen to take more responsibilities for the betterment of SFYC. Besides, we had observed cooperation from the school, facilitators and the organizing team. Facilitators also suggested that their task should not be limited only to states because it prevents networking and team building among facilitators from various states.

B9.3 SURVEY OF HEADMASTER

- Q1.** According to headmasters, majority of the schools perform excellently in mathematics and science subjects.
- Q2.** There were few factors that made the schools to participate in SFYC. Science Fair for Young Children, the programme itself has become the reason for the schools to participate. Besides, state organizers, students, parents and PIBG has become one of the reasons for the school to participate.
- Q3.** Comparisons were made to observe the positive and negative effect from SFYC. Survey shows more positive effect than negative effect. Whereby, students are more exposed to science knowledge. The negative effects are such as financial problems and burdening the teachers, whereby teachers need to do extra work beside their curricular activities.
- Q4.** Organization of the event was analyzed and the majority felt the organizing was very good and some felt that it was less systematic. Whereby, there were less guidance for students, information conveyed was inconsistent and delay in schedule.
- Q5.** School management organized School level Science Fair as a big event but it was not proper because there was less information about organizing the event.
- Q6.** Schools have arranged some follow-up activities after SFYC such as the science carnival and science week within the school.
- Q7.** Science club in their schools have been actively moving and frequently organized science related programmes.
- Q8.** Expectation from the following group to enhance participation in SFYC:-
 Teachers – cooperation and teamwork
 Parents/ PIBG – support (money / moral)
 Organizers – information not enough/ must give proper information.

Summary:-

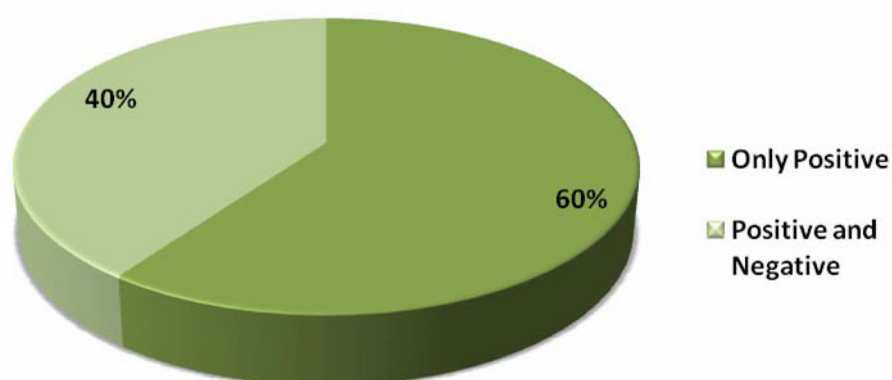
Many felt the students or participants were not guided well enough in accomplishing their task. Information provided were inconsistent and not uniform causing confusion. Information on conference paper was insufficient. Mainly delay in time schedule was criticized. Registration was problematic and did not run smoothly. Some claimed the hall was not spacious enough to support the entire teams. Suggestions were brought up to reduce the number of teams to qualify for the National level. A request to allow at least a teacher in the judging committee was brought up. Teachers were excited to be involved in the project, but, they feel burdened with so much of work and are lacking of financial support to run the project.



B9.4 SURVEY OF TEACHERS

- Q1.** From the survey, we got to know that selection of students for SFYC were mainly based on student's interest, their personal performance, and academic and also class ranking.
- Q2.** Most of the teachers (80%) responded that the 10 weeks time frame which is given now is comfortable enough to complete the experiments while another 20% said they need more than 10 weeks. These 20% respondents needed more time for their projects, probably because they would like to extend their project to a higher level or their projects might be difficult for them.
- Q3.** Diagram below shows effect of SFYC for the teachers involved in SFYC. More than half of the teachers (60%) feel that SFYC programme benefitted them only by positive aspects. While another 40% said that they had more positive and less negative effect. The positive effect is that, teachers got a chance to learn many new things in science by doing research about their project and visiting other booths in the event. Negative effect is that, many teachers need to work during the weekends and could not spend enough time with their family members since involved in the project.

Effect from SFYC to teachers



- Q4.** Survey reveals that, all the teachers observed positive changes in the participating participated students. Students' capability in their studies, communication skills, teamwork, and self esteem had improved tremendously. Indirectly, SFYC trained the students to gain these necessary core skills.
- Q5.** According to the survey done, only 50% of the schools did follow up activities after SFYC such as quizzes, visiting science related places and science carnival. Whereas another 50% did not carry on with follow up activities due to time and finance factors.
- Q6.** From the survey, we found out that, all the teachers required support mainly in finance and moral support from parents, PIBG, organizers and school management. Financial support need to be provided for all schools to ease the burden of the teachers.
- Q7.** Based on the questionnaire, all the teachers believe that it is important to have winner ranking and prize giving. From their opinion, this is vital as an inspirational and encouraging factor for the teachers and schools to perform better.
- Q8.** From the feedback, SFYC seems to be a very good programme which provided opportunity for the students and teachers to improve themselves in knowledge.

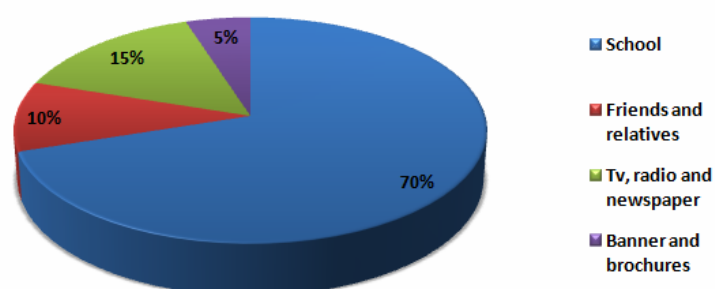
Summary:-

A lot of arguments were brought up on issues regarding allocation given to run the project. Although RM250 was the amount allocated, some schools spent up to RM1000 and this seems to be unfair for small schools because other schools can not afford to do the same. Suggestions to overcome this problem was to limit the amount of money could be used to run the project as this will invite creativity and proper management skills and at the same time will make the judging process easier. Other issues were about inconsistent information, and projects were done by teachers and not students. Some felt the space provided is too small and congested. Some teachers commented on the invitation letter which was not in official format and had many errors. Lastly, some teachers claimed the presentation board size to be too small. Some said the rules and regulations like the board size should be made clear. Teacher involved in SFYC mentioned that they gained a lot of knowledge and very proud to participate in the event. SFYC has opened a new avenue for the teachers to gain and share knowledge too.

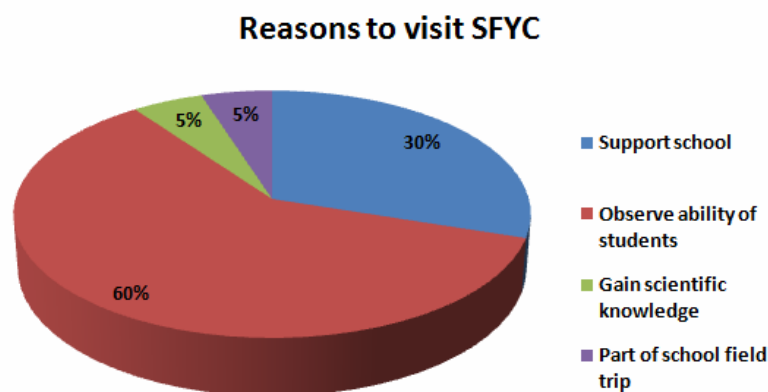
B9.5 SURVEY OF VISITORS

- Q1.** Survey done among SFYC visitors showed that only Indian ethnic visited the exhibition. We must to do more publicity to pull a bigger crowd.
- Q2.** The big percentage of the crowd (80%) had some relation with participants and the rest 20% did not have any relation with the participants. From this result, we can see that students' pull the large crowd than the event itself. Awareness needs to be created among the public regarding the importance of the programme.
- Q3.** Visitors came from Kedah and other states. But the big percentage of visitors who came from Kedah (85%) is much higher than the visitors from other states (15%).
- Q4.** SFYC was known to public through a few mediums which are schools, friends, relatives, media and banners. Diagram below shows the percentage of different mediums. Schools seem to be the most efficient medium to attract crowds for the event. More advertisements must be placed to attract a bigger crowd.

Percentage of publicity using different medium



- Q5.** There were many reasons for visiting SFYC. Main reasons were to support schools, observe ability of students, and gain scientific knowledge and part of school trip. Diagram below shows the percentage of visitors and their reason.



- Q6.** High percentage of the respondents among visitors (80%) will visit SFYC in future. Somehow, 20% of the surveyed visitors responded that it would depend on time and the location of the event. This particular question emphasizes the importance of choosing the right time and easy access to the location of the event.
- Q7.** Large numbers of visitors (70%) are satisfied with the outcome of SFYC 2010; meanwhile 30% have commented that there are some more points to improve. Anyhow, all the visitors encouraged this programme due to its function as a high impact producer and knowledge based event.

Summary:-

Based on our survey done, publicity of SFYC should be tremendously increased among all Malaysians. SFYC has much higher capability of pulling the crowds as a knowledge based event. The exhibition area needs to be improvised, whereby more space needs to be allocated at entrance and walking paths. Also, some of the visitors suggested the event location should be nearby where parents are able to accommodate.

B9.6 CONCLUSION

Science Fair for Young Children has become a new platform for all, particularly students, teachers, parents and also individuals to gain high impact knowledge. Schools are providing very good cooperation for the success of the programme, but more schools need to be pulled in to make sure all schools gain benefit from this event. All individuals who joined the event were very proud of themselves as they have been part of success in this project. Individuals are keener to put on more effort to conduct the event in future. Although, there are space for improvement most of the participants, teachers and visitors are glad with the way programme was conducted. More publicity needs to be done in order to pull more crowds to gain knowledge. Visitors for the event have been increasing every year and this shows SFYC has created awareness and motivated the public to gain more knowledge. Overall, Research and development team has done an excellent job in looking through the issues and finding a solution for the problems. Besides, study also need to be carried out to analyze the output of SFYC for students in the long run.



APPENDIX

C

C1.0 INTRODUCTION

A good Science Fair project involves the scholar/students in a journey of discovery, ambitious by inquisitiveness. It typically starts with an interest in some scientific subject and the scholar may propose a hypothesis and then do further background research. The scholar then develops an experimental procedure that will produce data, from which she/he can draw conclusions to prove or disprove the hypothesis. More often than not, new hypotheses will result from the experiment, leading to new experiments, which might be done in the future. A quality Science Fair Project directs the scholar's efforts toward a particular result or expectation; undirected experimentation just to find out what happens is play, not science (although notable discoveries have been made in this manner, they are notable because they were accidents).

Scientists play an important role in our society. They basically do researches and experiments to enhance the living in an environmental friendly way. Scientists normally do not succeed in their first trial of an experiment, so they will carry out few trials to make sure their product is really perfect and supports the hypothesis. Failure of each experiment they carry out does not discourage them but gives them new strength and confidence to enhance their failed experiment.

So, Science Fair actually gives students a chance to experience a scientist lifestyle and being exposed to nature. And most of all, you will be learning a lot and enjoy doing it. Hence, the purpose of Science Fair is to give young people the opportunity to actually learn some science. Along with our role as an evaluator of science projects, we also have the responsibility of reinforcing that function as well as heartening, motivating and even sometimes doing a little coaching on the particular experiment. Even a scholar whose project is of modest quality should feel a sense of success and be proud of it. Clearly, judges have a critical responsibility in the success of this Science Fair.



C2.0 JUDGES` RESPONSIBILITIES

Judging group is a assemblage of experienced and qualified individuals that is responsible for assessment of scholar research experiments and exhibits for fulfillment with the rules and regulations. The judging group formed to assist the Science Fair Steering Committee in reviewing and judging the experiments or projects.

A judging group examines projects during the Science Fair event through the:

- Setting and vetting the judging criteria for the science experiments that are evaluated during the Science Fair event.
- Evidence of effective preparation of the experiments.
- Completed Science Fair log book and report book.
- Comments given to teachers and volunteers at school and state level science fair projects.
- Verification of the acceptable and appropriate research techniques

C3.0 JUDGING CRITERIA

It is critically important that judging be based primarily on the scientific advantage of the projects. This includes the experiment itself, the scholar`s knowledge of the scientific, research, underlying engineering principles underlying experimental design, result, and their proposition. A good project must consist of a research background and not be merely a collection or demonstration of technological or scientific principles, which could be impressive.

Normally credits will be given only to the experiments that elaborate the results in a more effective system with hypothesis, methods, results, and conclusions of the experiment projects. A polished display is not a substitute for good science research.

C 4.0 JUDGING PROCESS

C 4.1 *Prejudging Preparation*

Judges training will be conducted prior to Science Fair. The judges must read the judges` manual and get to know the judging guidelines and forms. The judges have to know the details of experiments proposed. The purpose of this is to preview the experiments so that judging is more effective and efficient.

C 4.2 *Pre-Judging Activities*

Chief Judge will conduct a coordination meeting to review the procedures and provide the latest information on science fair progress and other important issues. The purpose of this meeting is to formulate questions to be asked to all participating students. Although some variation in questioning may appear, the judges must agree on a primary set of questions in order to establish a common basis for ranking the schools. The judging forms reviewed and corrected according to the feedbacks. New set of question formed for 2010 judging. This is to test the understanding of the students on the experiments.



C 5.0 JUDGING PROCEDURES

- Step 1:** Judging done by one of the judging panel members at a time rather than by the whole group at once. The time taken for each interview should be reasonably uniform and proceed from experiment to experiment in the sequence determined by the panel chair by cross judging.
- Step 2:** Begin by introducing panel to students to ease the ice-breaking and do not create anxiety among the scholars
- Step 3:** Ask the students to explain or present the experiment.
- Step 4:** Following the initial presentation, ask questions to clarify aspects of the project and to determine students understanding.
- Step 5:** Judge should ask questions (these questions should be related to the experiment) to determine the scholars` understanding of the scientific principles that form the basis of the experiment.
- Step 6:** Then the panel will meet again to discuss the result and determine the winners.
- Step 7:** In case of very close judging result or bias result, the chief judging panel will have a special judging session to re-confirm the winner.

C 6.0 DETAILS OF EVALUATION CRITERIA

Judges have to be capable to use judging criteria during evaluation process to analyze the criteria for each experiment.

C 6.1 Project Objectives

The main objective would be assessing the original ideas in preparing the experiment, stating the difficulties during the experiment process by indicating significant variables and control variables and related background reading for the problem.

C 6.2 Project Skills

Students should have basic skill of conducting experiments. They also should be knowledgeable about equipment used in performing the experiments with little or without any assistance except from teachers and parents except for safety reasons. Demonstrating the skills required to do all the work necessary to obtain the data reported. Students must learn and understand the experiment in total and should minimize teachers and parents contribution.

C 6.3 Assessment Process During Science Fair

The 1st day of judging is for log book and report book assessment. Appointed judges have a small briefing section for log book and Report book judging. File distributed to all judges. Then, all judges will assess and submit final results to the chief judge.

On 2nd day, chief judge will brief judges about judging methodology for Form C. Booth visiting will be held to give an overall picture to all judges. Judging will be assisted by one facilitator. Estimated time for judging is 15 minutes with 5 minutes for question and answer section per school. The judges will break for 30 minutes after the first judging session. After that, judging will continue for cross judging by a different judge's panel.

The judges will then meet to discuss, verify and finalize the total marks obtained by each booth for the day. Average marks for each criterion in Form A, Form B and Form C will be averaged. The Chief Judge submits the final marks to the secretariat.



APPENDIX

D

தமிழ்ப்பள்ளிகளுக்கிடையிலான அறிவியல் விழா ஆரம்பம்



அறிவியல் விழா குழுவினர்.

**இ.எம். முகமது அலி
படம்: தி. மோகன்**

கோலாலம்பூர், ஏப். 21- இவ்வாண்டு தமிழ்ப்பள்ளிகளுக்கிடையிலான அறிவியல் விழா மாநில அளவில் மே 2ஆம் தேதி பங்சார் டி.என்.பி. அரங்கில் தொடங்கவிருப்பதாக அதன் ஏற்பாட்டுக் குழுவின் ஆலோசகர் எம். இளந்தமிழன் தெரிவித்தார்.

கடந்தாண்டை போல் மாநிலத்தில் ஆரம்பித்து, இதன் மூலமாக தேர்வு பெறும் தமிழ்ப்பள்ளிகளுக்கிடையிலான குழுக்களுக்கு வாய்ப்பு வழங்கப்படும். இந்த அரிய வாய்ப்பினை தமிழ்ப்பள்ளி மாணவர்கள் நன்கு பயன்படுத்திக் கொள்ள வேண்டுமென்று அவர் கேட்டுக் கொண்டார்.

இதனிடையே மலேசிய இந்திய அறிவியல் இயக்கம் அரசு சாராத, இந்திய சமூகத்தை அறிவியல் சமூகமாக மாற்றும் தூர நோக்கு இலக்குக் கொண்டு தன் பயணத்தைத் தொடங்கிய இயக்கமாகும். தமிழ்ப்பள்ளி மாணவர்கள் அறிவியலை ஏட்டில் மட்டும் பயிலாமல், ஆராய்ந்து அறிவியல் அறிவை மேலும் ஆழப்படுத்த உதவும் முகமாகவே அறிவியல் விழா தொடங்கப்பட்டது. நாடு தழுவிய அளவில் கடந்த

இரண்டு ஆண்டுகளாக நடைபெற்ற அறிவியல் விழா மாணவர்களிடையே அறிவியல் சார்ந்த எழுச்சியை ஏற்படுத்தியுள்ளதை யாரும் மறுக்க இயலாது. இவ்வாண்டு தேசிய அறிவியல் விழா கெடாவில் அமைந்துள்ள ஏய்ம்ஸ்ட் பல்கலைக்கழகத்தில் வரும் ஜூன் 6ஆம் தேதி நடைபெறவுள்ளது. இந்த விழாவை மலேசிய இந்திய அறிவியல் இயக்கத்தோடு இணைந்து மலேசிய சமூக கல்வி அறவாரியம், தமிழ் அறவாரியம், புத்ரா ம.இ.கா., மலேசிய மனிதவள புறநகர் மேம்பாட்டுக் கழகம் போன்ற மற்ற அரசு சாரா இயக்கங்களும் நடத்துகின்றன. ஆஸ்ட்ரோ இவ்விழாவின் அதிகாரப் பூர்வ ஒளிபரப்பு நிறுவனமாகும்.

2009இல் நடைபெற்ற அறிவியல் விழாவில் 190 தமிழ்ப்பள்ளிகளிலிருந்து 207 குழுக்கள் பங்கேற்றன. முதலில் மாநில அளவிலும் பிறகு தேசிய அளவிலும் மாணவர்கள் பங்கெடுத்து மகிழ்ந்தனர். 2010இல் ஏறக்குறைய 300 குழுக்கள் விழாவில் பங்கெடுக்க தங்கள் பெயர்களைப் பரிந்துரைச் செய்துள்ளன. மேலும் மாநில, தேசிய நிலையிலான விழாக்களைத் தவிர்த்து சில பள்ளிகள், பள்ளி அளவிலான அறிவியல் விழாவையும் ஏற்பாடு செய்துள்ளன.

இவ்வாண்டு அறிவியல் விழாவில் 9 பிரிவுகளில் சுமார் 300 குழுக்கள் கலந்து சிறப்பிக்குமென எதிர்பார்க்கப்படுகிறது. இந்த பிரிவுகளில் முதன்மை 60 இடங்களைப் பெறும் பள்ளிகள் 6 ஜூனில் நடைபெறும் தேசியரீதியிலான அறிவியல் விழாவில் கலந்து கொள்ளும் தகுதியினைப் பெறும். அறிவியல் விழாவில் மாணவர்கள், ஆசிரியர்கள், குடும்ப உறுப்பினர்கள், பொது மக்கள் என சுமார் 20,000 பேர் வரை கலந்து கொண்டு சிறப்பிப்பார்கள் என பெரிதும் எதிர்பார்க்கப்படுவதாக இளந்தமிழன் குறிப்பிட்டார். மேலும் விழா ஓட்டிய தகவல்களுக்கு செயல் திட்ட அதிகாரி குமாரி உமா சங்கரியை 03-78778571 என்ற எண்ணில் தொடர்பு கொள்ளலாம்.

தமிழ் மாணவர்களுக்கான அறிவியல் விழா

(நக்சீரன்)

கோலாம்பூர், ஏப்.21- தமிழ்ப் பள்ளி மாணவர்களுக்கான அறிவியல் விழா விறகு நான்காவது ஆண்டாக ஏற்பாடு செய்யப்பட்டுள்ளதாக மலேசிய இந்திய அறிவியல் ஆர்வலர் அமைப்பின் (Malaysian Indian Science Intellectuals) சார்பில் அறிவியல் துறை விரிவுரையாளர் சாமி ராதன் நேற்றைய செய்தியாற் கூட்டத்தில் அறிவித்தார்.

அறிவியல் என்பதை ஒரு பாடம் என்ற அளவில் நம்மில் பலர் வரையறுத்துக் கொண்டுள்ளனர். விழித்திருக்கின்ற வேளைதோறும் அறிவியற்குறு களுடன் இரண்டற இணைந்தே நாம் வாழ்கிறோம் என்பதை நம் மக்களுக்கு குறிப்பாக தமிழ்ப்பள்ளி மாணவர்களுக்கு தெளிவு படுத்துவதே இந்த நிகழ்ச்சியின் தலையாய நோக்கம்.

விண்ணிலும் நம்மைச் சுற்றிலும் தவழ்கின்ற காற்றில் உயிர்க்காற்றான ஆக்சிஜனுடன், நைட்ரஜன், ஹைட்ரஜன் போன்ற விரிய வாயுக்கள்; ஹீலியம், ஆர்கன் போன்ற மந்த வாயுக்கள்; கார்பன்-டை-ஒக்சைட், கார்பன்-டை-மொனொக்சைட் போன்ற விரியமில் வாயுக்கள், நுண்ணிய நர்த்திவலைகள், தூசுக்கள், நோய்க் கிருமிகள் மட்டும் கலந்திருக்கவில்லை. நம் நுரையீரல் வரை இமைப் பொழுதுதோறும் சென்று திரும்புகின்ற இவ்வாயுவில் மின் காந்த அலைகளும் இழை

யோடி இருக்கின்றன.

இவற்றின் வழியேதான் நாம் மகிழுந்தின்(காரின்) கண்ணாடியைத் தானியங்கி விசை கொண்டு திறக்கிறோம். மூடுகிறோம். தொலைக்காட்சிப் பெட்டியை தானியங்கி விசையால் திறக்கவும் மூடவும் செய்கிறோம். இலட்சக்கணக்கான ஓசைகள் கலந்திருக்க நமக்குத் தேவையான ஒலியை மட்டும் கேட்பதற்காக வானொலிவழி குறிப்பிட்ட அலைவரிசையைப் பயன்படுத்துகிறோம்.

இப்போதெல்லாம் மின் விசிறியைக் கூட மின்விசையைத் தட்டாமல் தானியங்கியைக் கொண்டு இயக்குகிறோம். ஆக, விழித்திருக்கின்ற நேரம் என்று மட்டும் என்றில்லாமல் உறங்கும் வேளையில் குறிப்பிட்ட நேரத்திற்கு ஓசை எழுப்பி எழுப்பி விடும் மணிப் பொறியை (Alarm Clock) போன்று கைப்பேசியைப் பயன்படுத்துகின்றோம். கைப் பேசிகள் யாவும் முழுக்க முழுக்க துணைக் கோளங்கள் மூலமும் மின்காந்த அலைகள் மூலமுமே இயங்குகின்றன.

இவ்வாறாக நாம், நம் வாழ்க்கையுடன் இணைத்துக் கொண்டுள்ள அறிவியல் பற்றிய விழிப்புணர்வை இளம்பருவத் திலேயே நம் மாணவர்களுக்கு ஏற்படுத்த வேண்டும் என்பதே இந்த அறிவியல் விழாவின் முதன்மைக் காரணம் என்று சாமி ராதன் தெரிவித்தார்.

இந்த விழாவிற்காக தீபகற்க மலேசியாவில் உள்ள மாநிலங்கள் எட்டு பிரிவுகளாகப் பிரிக்கப்பட்டுள்ளன.

முதல் பிரிவு (கெடா-பெர்லிஸ்) மே 29ஆம் நாள், இடம்: ஏய்ம்ஸ்ட் பல்கலைக் கழகம்: தொடர்புக்கு: மகேஸ் வரன் - 012-4630320

இரண்டாம் பிரிவு (பேரா) மே 15ஆம் நாள், இடம்: Master skills, தொடர்புக்கு: தியாக ராஜன் 013-5306158.

மூன்றாம் பிரிவு (சிலாங் கூர்-கோலாலம்பூர் கூட்டரசுப் பிரதேசம்) மே 2ஆம் நாள், இடம்: டிஎன்பி அரங்கம், பங் சார். தொடர்புக்கு: இளந்தமிழ் 012-3143910.

நான்காவது பிரிவு(நெகிரி செம்பிலான்) மே 22ஆம் நாள், இடம்: சிரம்பான் தோட்டத் தமிழ்ப் பள்ளி, தொடர்புக்கு: அன்பா: 012-2381367.

ஐந்தாவது பிரிவு(ஜொகூர்) மே 9ஆம் நாள், இடம்: துன் உசேன் ஓன் பல்கலைக் கழகம், தொடர்புக்கு: சரவணன்: 012-3375729.

ஆறாம் பிரிவு(பகாங்-கிளந்தான்) மே 23ஆம் நாள், இடம்: மெந்தகாப் ஹ்வாலியான் இடைநிலைப் பள்ளி அரங்கம், தொடர்புக்கு: வரதராசன்: 019-9768009.

ஏழாவது பிரிவு(பினாங்கு) மே 22ஆம் நாள், இடம்: இராமகிருஷ்ணர் தமிழ்ப் பள்ளி அரங்கம், தொடர்புக்கு: பாலா: 012-4342536.

எட்டாம் பிரிவு(மலாக்கா) மே 23ஆம் நாள், இடம்:

மலாக்கா பிளாண்டேரியம், தொடர்புக்கு: இராமன்: 012-6957150.

மாநில அளவில் நடைபெறும் அறிவியல் விழாக்களில் வெற்றி பெறும் இறுதிச் சுற்றுவரை கலந்து கொள்ள ஏற்பாடுகள் செய்யப்படும். தவிர மாணவர்களின் பாதுகாப்பு, பயண ஏற்பாடுகள் அந்தந்த பள்ளி நிர்வாகத்துடன் ஒருங்கிணைக்கப்படும். எனவே, பெற்றோர்கள் இவை பற்றி ஐயம் கொள்ளத் தேவையில்லை என்று இந்த அறிவியல் விழாவிற்கான திட்ட அதிகாரி குமாரி உமாசங்கரியா தெரிவித்தார்.

தமிழ்ப் பள்ளிகளின் 4,5 ஆம் ஆண்டு மாணவர்கள் மட்டும் கலந்து கொள்ளும் இவ்வறிவியல் விழாவின் தேசிய (நிறைவு) விழா, ஜூன் 6ஆம் நாள் ஏய்ம்ஸ்ட் பல்கலைக் கழகத்தில் நடைபெறும்.

மலேசிய கல்வி சமூக அறவாரியம், தமிழ் அறவாரியம், மஇகாவின் புத்ரா பிரிவு, மலேசிய மனித வள புறநகர் மேம்பாட்டுக் கழகம் போன்ற இயக்ககளுடன் இணைந்து நடத்தப்படும் இந்த அறிவியல் விழாவில் 300 குழுவினர் கலந்து கொள்வர் என்றும் இவற்றில் 60 குழுக்கள் இறுதிப் போட்டியில் பங்கு பெறும் என்றும் எதிர்பார்க்கப்படுவதாக உமா தெரிவித்தார்.

இவ்விழா பற்றிய மேல் விவரங்களுக்கு 03-78778571 என்ற எண்ணில் தன்னுடன் தொடர்பு கொள்ளலாம் என்று உமா தெரிவித்துள்ளார்.



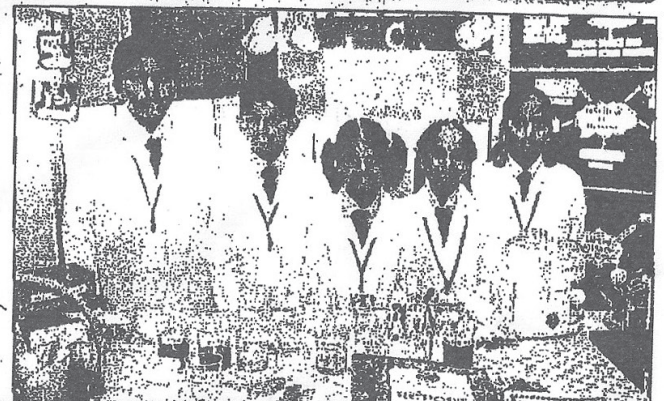
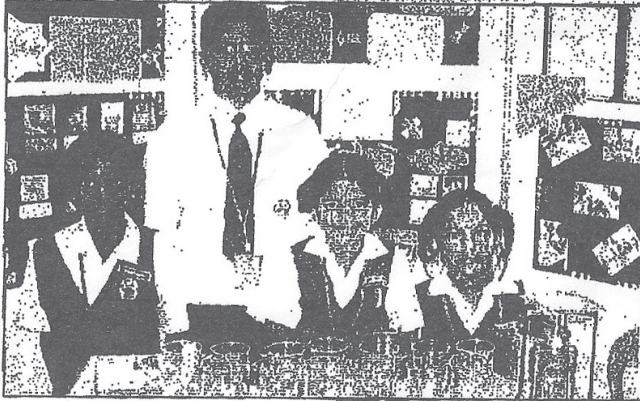
இளம் அறிவியல் ஆய்வாளர் மாநாடு

பீடோங்கில் நடைபெற்ற மலேசிய தமிழ்ப்பள்ளி மாணவர்களுக்கான இளம் அறிவியல் ஆய்வாளர் மாநாட்டில் அறிக்கை சமர்ப்பித்தல் பிரிவில் ஜோகூர் தாமான் துன் அகீனா தமிழ்ப்பள்ளி முதல் இடத்தை பிடித்தது. இரண்டாவது இடத்தை போரூ கங்கை சாமாக் தமிழ்ப்பள்ளியும் மூன்றாவது இடத்தை பகாங் லஞ்சாங் தோட்ட தமிழ்ப்பள்ளியும் வென்றன. மேலும் செய்தி / படங்கள் பக். 3இல்

நாணயம்

மாக்கள் எரி 10011850/10011850 MALAYSIA NANBAN

இளம் ஆய்வாளர், அறிவியல் போட்டியில் 51 தமிழ்ப்பள்ளிகளின் பங்கேற்பு



(ப.சந்திரசேகர்)

பீடோ, மே 16- மலேசிய தமிழ்ப்பள்ளி அறிவாரிய த்தின் ஏற்பாட்டிலான இளம் ஆய்வாளர், அறிவியல் கண்டுபிடிப்போட்டியில் போரா மாநிலத்திலுள்ள 51 தமிழ்ப்பள்ளிகள் பங்கெடுத்துக் கொண்டது பெருமிதம் கொள்ள செய்கிறது என்று அறிவாரியத் த்தின் விழாக் குழுத் தலைவர் சொ. தியாகராஜன் இங்கு கூறினார். தமிழ்ப்பள்ளி மாணவர்களிடத்தில் அறிவியல் அறிவாற்றலை வளர்க்கும் நோக்கத்தில் மலேசிய தமிழ்ப்பள்ளி அறிவாரியம் ஏற்பாடு செய்திருந்த இளம் ஆய்வாளர், அறிவியல் விழாவில் மாணவர்கள் ஆர்வம் அதிகரிக்கத் தொடங்கிய



விழா ஏற்பாட்டுக் குழுவினர்

வேளையில் மாநில அளவில் இப்போட்டியை நடத்துவதன்வழி சிறந்த ஆய்வாளர்களை தேர்வு செய்து தேசிய

அளவில் திறனை வெளிப்படுத்துவ தற்கான ஏற்பாட்டினை செய்து வருகிறது போரா மாநில அளவிலான இளம் ஆய்

வாளர் அறிவியல் விழாவில் மொத்தம் 51 பள்ளிகளைச் சேர்ந்த 53 குழுக்கள் போட்டியில் பங்கெடுத்துக் கொண்டன...





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