



Creative and Critical Thinking Camp 2014 Report Compiled by: Ms. Úmahsankariah Muthunaikar Produced by, ASTI R&D Department Design, Layout & Editing by, Ragavan Pandian (Freelance Designer) Printed by, Firdaus Press Sdn. Bhd.

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Ms. Umahsankariah Muthunaikar

# **CONTENT DEVELOPMENT TEAM**

ASTI R&D



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# **Executive Summary**

Creative and Critical Thinking Camp (CCT Camp) is a programme designed for young people to develop their higher order thinking skills. The focus of the programme is to help them develop the capacity in creative and critical thinking. They are introduced to the concepts such as: thought process on how to generate and evaluate information, clarify concepts and ideas, seek new possibilities and consider alternatives and solving problems. Creative and critical thinking can help young people to think both broadly and deeply using skills, behaviours and predispositions in both school and their life when making choices in life.

The need for thinking skills is acknowledged today as one of the primary purposes of education. Training and establishing creative and critical thinking throughout the learning process encourage the student to continuously engage in active decision making. CCT allows the participants to select from a range of thinking strategies and methods introduced at the camp, and then employ them to augment their learning experience. This can be done using imagination and logic, and by reflecting on how they best tackle issues, tasks and challenges.

Activities that foster creative and critical thinking should not only be challenging and engaging, and contain approaches that are within the capacity of the learners, but also challenge them to think with an open-mind, seek alternatives, tolerate ambiguity, inquire into possibilities, be innovative, be risk-takers and always use their imagination.

This year, CCT also worked with other projects within ASTI, namely the Science Film Festival and ASTI-Edu Tour, organising one-day CCT workshop as part of these other programmes. This format was very positively received.

Our team successfully organized a Southern Region CCT Camp 2014 from 28 - 30 November 2014 at Pusat Kecemerlangan & Pembangunan Insan YPJ, Mersing, Johor. The camp had 25 participants from all over Malaysia ranging from the ages of 10 to 12 years old. All participants were very excited and passionate to attend the camp. In their feedback, they mentioned that they had learned a lot through the indoor and outdoor activities conducted for them. Furthermore they learnt teamwork, leadership and public speaking skills during the camp.

The success of the camp was definitely as a result of our committed instructors, staff and volunteers who had given us their valuable time to conduct this camp. we would also like to take this opportunity to thank Madam Wan Khatina Binti Wan Mohd Nawawi and YB Raveen Kishnan for their financial contribution towards the success of the camp.

Thank you very much indeed.

"Curiosity about life in all of its aspects, I think, is still the secret of great creative people" – Leo Burnett



Young people within the education system today have become spectators rather than participants in their own 'learning journey'. They are overwhelmed with facts and figures in school; they memorize for tests and exams, but soon afterwards they forget. It could be argued that education should help students awaken and expand their creative and critical mind by empowering the learner to take charge of his or her education process. Subjects and topics are therefore mere tools to nurture this new independent thinking mind - which will help the students confront the many challenges they would face in the ever fast-changing world. The future generations would need to be empowered to think for themselves in order to be able to solve problems 'on-the-go'. Thus, any subject, within the sciences or the arts, if 'delivered' properly, is able to create this ultimate goal.

As a result, a camp coordinated by a team of motivated experts who have extensive experience in the field of Science, Technology and Innovation as well as Youth Engagement and Empowerment was organised. This camp introduced the concepts of thinking creatively and critically, of using logical & empirical reasoning to solve problems and using competitive & collaborative methods to produce an outcome when making choices in many aspects of the participants' lives. These methods were introduced to them via indoor and outdoor lessons and fun activities in a "camp" environment.

We hope to use this camp as our platform to inculcate and introduce the concept of thinking creatively and critically when making choices in one's life. Both methods of logic and empirical reasoning were introduced with simple lectures and fun activities. Competitive and collaborative methods of producing an outcome were be explored by the participants. The camp was heavily subsidised where we charged the participants a minimal amount to cover some of the costs of the programme. We also provided scholarships to deserving students.





# Aims & Objectives

- To help empower the youth to think in a creative and critical manner. It consists of presentations and activities.
- To build effective resources, guides and know-how in order to make this a recurring camp for young people across the country.
- To use both competitive and collaborative methods to produce positive outcome when making choices and solving problems.
- To help youths realize that learning can be fun by not just memorizing facts, but also by understanding and building insight.

# 2.1 Target Group

We aim to conduct the camp at 3 different levels: Primary Standard Six, Secondary School and University Students.

As a start, we held a pre-pilot programme for 36 young students who had just completed their UPSR. We ran the programme at the end of November 2013. It was an all-inclusive 3-day 2-night event. The feedback we received and the organizational lessons-learnt helped us prepare for a pilot programme of 3 days and 2 nights held in 2014.







The Implementation Steps for CCT-2014 were as follows:

- 1. ASTI formed a working group to oversee and be responsible for the delivery of the project. ASTI developed the overall policy of the programme.
- 2. The working group's responsibilities, completed, were:
  - to work together with ASTI to identify funders and partners for the project
  - to help ASTI R&D Department to develop content and modules for the programme (copyright for the modules shall be owned by ASTI)
  - · to identify and organise the training of volunteers and trainers
  - · to identify the venue and organise the logistics for the event
  - · to implement and run the event
  - to conduct postmortem after the event and identify ways to improve the programme
  - to dissolve and pass the project back to ASTI.

# The Content Development

It is the policy of ASTI that all content development for ASTI's programmes and initiatives will be developed by the ASTI R&D Team. As such, the content and modules for the programme were developed by the ASTI R&D Team. The list of modules developed for the CCT is as below: (For full details, please refer to Appendix 1)

# For CCT Camp:-

- Module on Ice breaking
- Module on 5 Reasons Why Humans Are Capable of Genius
- Module on Healthy Body and Healthy Mind
- Module on Boosting Your 5 Senses
- Module on Problem Solving (CSI)
- Module on The Croods Movie and Review
- Module on Speed Reading
- Module on Mind Mapping
- Module on Relaxation
- Module on Concentration
- Module on Creativity
- Module on WHO AM I (Understanding Yourself- Empathy for Others)
- Module on Boosting Your 10 Intelligences
- Module on Lateral Thinking
- Module on Expressing Your Creativity
- Module on Brainstorming
- Module on Short Term Memory Tips
- Module on Living Earth
- Module on Discover Yourself
- Module on Critical Thinking in Conversation
- Module for Secondary and University Level (In the preparation process)

# Science Flim Festival-CCT

- · Module on Why and How We Think?
- Introduction To Science and Technology

# **Application Procedure**

To market and inform the public about the CCT, the following steps were taken:

- Flyers were prepared, designed and sent out to many Primary and Secondary schools especially SK, Chinese, Tamil and boarding schools. A total of 2200 flyers were sent out.
- Telephone calls were made to selected schools' headmasters and teachers in order to inform them of the project.
- · Information was circulated via e-mail and through social media.
- Application forms were prepared, designed and uploaded to the ASTI website to be downloaded.
- News about CCT was also spread via word of mouth at the Science Fair for Young Children (SFYC) and Young Inventors Challenge (YIC) events.

Once a school or a potential participant showed an interest, the following steps were taken:

- The forms were sent to the applicant via e-mail, and a special team was formed to select the applicant to participate in the camp.
- Selected applicants were sent acceptance letters and informed of the mode of payment.
- Confirmed participants paid fees and signed a waiver form.
- Programme Booklet and various other necessary information were sent to the participants.
- · Insurances were bought for all confirmed participants.
- · Participants' arrival and the Camp began.





The Southern Region Creative and Critical Thinking Camp (CCT) 2014 was a three-day event which started on Friday morning and ended on Sunday afternoon. The details of the camp are as below:

**Date** : 28 - 30 November 2014 (3 days 2 nights)

Venue: Pusat Kecemerlangan & Pembangunan Insan YPJ, Mersing, Johor.

# DAY ONE - FRIDAY 28 November

The day started at 10:30am with the arrival and registration of the participants at the foyer of the hall. During the registration, the participants received their nametag, a T-shirt and a guide book. The participants were also divided into groups. The formal event started at 11:00am with all the participants having arrived.

There was a short briefing on camp safety and rules & regulations followed by a short briefing of the programme for the following 2 days. The programme started with the participants seated according to their groupings. Each group was made up of 6 participants. There were a total of 4 groups seated in 4 round tables.

The programme began with an icebreaking session conducted for the participants by our facilitators which was to set the theme of the camp. The participants were then involved in various indoor activities in the form of group presentations which were delivered in the morning and afternoon sessions. These sessions were: 5 Reasons Why Humans Are Capable of Genius, Boosting Your 5 Senses, and Healthy Body and Healthy Mind. Then an outdoor activity called the "flying fox" was conducted for the participants. The participants had a lot of fun during this session, and a spirit of comradeship was established as each participant encouraged each other to complete the activity.

The participants were then given a break when they freshened up and had their dinner at 7:30pm. Afterwards, the participants watched a movie called The "Live of PI". There was a short discussion about the movie after the showing. Discussions include conversation about the moral of the story, the main characters, the feeling of the participants when watching the movie, and so on. Day-one sessions ended with the participants having their supper. The participants then retired to their rooms. Meanwhile, the Event Committee had a meeting to wrap up the day's event and continued with the setup preparations for the following day's sessions.



# DAY TWO - SATURDAY 29 November

The full day's activities started at 6:45am, with the participants having their morning exercise led by Major Dr. Vikneswaran followed by breakfast. The session continued with a session called "Living Earth" by Dr. Yunus Yasin to set the stage for the following activity which was an outdoor activity. The participants gathered in and were then taken on a "Jungle tracking" exercise to show the biodiversity of our living Earth.

After the outdoor activity, the participants had their shower and gathered to have a group photograph. The morning activities started at 9am and continued until lunch at 1:15pm with sessions on: Problem Solving (CSI), where participants acted out being crime scene investigators. After lunch and a quick warm-up game, the sessions continued with the modules on: Relaxation and Concentration, Critical Thinking in Conversation, Boosting Your 10 Intelligences, and Lateral Thinking. Then, after a break, the evening session continued at 8pm, after shower and dinner, with: Expressing Your Creativity. The participants also enjoyed a camp fire activity along the beach and had lots of fun over a sing-a-long activity and a star gazing exercise. The participants then retired for the night after having supper around 10:30pm.





# DAY THREE - SUNDAY 30 November

On the final day, at 7:00am, after the morning exercise session, the participants gathered in the cafeteria for breakfast. Then, after a short warm-up game, the sessions continued with: CSI and Long and Short Term Memory Tips and a special presentation on the conservation of Coral Reef. This session was conducted by a special guest, Mr. Alvin, from the conservation NGO called "Reef Check". He spoke about the importance of preserving the reefs and their importance to the biodiversity of the oceans. These sessions ended by 11:30am for the Certificate Presentations and Camp Closing Speeches.

The parents who had arrived early were invited into the hall for the closing ceremony. Each participant was presented a Certificate and a book. Project Director Major Dr. Vikneswaran and ASTI President Dr. Yunus Yasin each gave a short speech and closed CCT Camp for 2014.









# List of the Trainers for South Region CCT Camp

Dr. Mohamed Yunus Yasin

Maj. Dr. Vikneswaran Munikanan

Ms. Archana Buthiyappan

Ms. Noorul Huda binti Abdul Jabar

Ms. Nesamalar

Mr. Alvin

Mr. Mohamad Hassan

We also like to thank the following person that helped make CCT a success:-

Mr. Shanmuganathan Velu

Mr. Jaganath Rajaendran

Ms. Noorul Huda binti Abdul Jabar

Ms. Selvamalar Selvarajan

Mr. Sargeswara Rajan

Ms. Kalaiselvi Ettikan

Mr. Nagendra Rao Mahaletchimy

Dr. Chun Te Ewe

Dr. Mohamed Yunus Yasin

Ms. Archana Buthiyappan

Maj. Dr. Vikneswaran Munikanan

Ms. Chitra

Mr. Ramesh

Ms. Nesamalar

Dr. Logeswaran

Ms. Dharmini Joseph





# ASTI EDU-TOUR MALAYSIA 2014 (AET)

# Introduction

ASTI gave an opportunity to CCT WGC to share its expertise and training in leadership via a programme called ASTI EDU-TOUR MALAYSIA

# Target Group

The target group for the one-day CCT workshop was students from Vietnam who are members of the ATY, group from Vietnam. Their ages ranged from 12 to 20 years old. There were a total of 8 male and 11 female students and 3 accompanying adults.

# Camp Summary

The following is a summary of the Creative & Critical Thinking programme conducted for ATY. (This was a condensed version of the three-day CCT Camp which ASTI runs)

Date : 17 July 2014 (1 day)

Venue : MNS Kuala Selangor, Selangor

DAY 1 - Thursday 17 July. The day started at 6:45am with a morning exercise near the accommodation area. Major Dr. Vikneswaran conducted the morning exercise. The 1st session Introduction was conducted by Dr. Yunus Yasin to the participants. The session continued with these modules: 5 Reasons Why Humans Are Capable of Genius, Boosting Your 10 Intelligences and Introduction to Creativity & Expressing Your Creativity. Then after lunch at 1:00pm, the participants were given a break to take a nap for about 1 hour 15 minutes. The afternoon session continued with The Movie Review by Ms. Noorul Huda. The movie used was "Annedroids" from the Science Film Festival. The evening sessions continued with these modules: Relaxation & Concentration, Understanding Stories, and finally Mind Mapping & Brainstorming as the last session which ended at 7:45pm. The participants had their dinner at 8:00pm and then continued with their activities for ASTI-EduTour.

# Camp Programme Sessions

The following is a summary of each of the Creative and Critical Thinking Camp sessions.

Session 1 : Introduction

Session 2 : 5 Reasons Why Humans Are Capable of Genius & Boosting Your 10 Intelligences

Session 3 : Creativity & Expressing Your Creativity

Session 4 : The Movie Review

Session 5 : Relaxation & Concentration Session 6 : Understanding Stories

Session 7 : Mind Mapping & Brainstorming

Note: For the full summary, kindly refer to Appendix 1

# Science Film Festival - The Goethe-Institut and ASTI Partnership

# Introduction

International Science Film Festival (SFF) is organised across the globe by the Goethe-Institut in partnership with various local organisations. This year is the 4th edition of the Film Festival which was organised with added grandeur. More than 400,000 viewers had enjoyed the films presented last year. To make it a success in Malaysia, local partners were enlisted for this project and they include Malaysian Nature Society, The German Malaysian Institute, The Ministry of Education, Siemens and Mercedes-Benz. The Association of Science, Technology and Innovation (ASTI) is proud to be chosen as a partner this year.

FUTURE TECHNOLOGIES is the chosen theme for 2014. It showcases films coming to screen across the world depicting how the overall future of the world would look like. With time, more and more technologies would dominate our societies – and films that show visions of the future were also chosen this year. The event showcased technology-based films that would have an immediate effect and impact on mankind. The films even emphasized the potential changes and opportunities available to mankind. In fact, some technological concepts in some films might even be mindboggling to the viewers which foresee the coming world dominated with technological achievements.

In conjunction with this SFF, the CCT team conducted a special one-day workshop using the films from this year's SFF.

# SFF-CCT Format

One of the areas covered in the CCT workshop day organised by ASTI are modules specially developed whilst watching films and understanding what was showed. The participants were asked to watch the films in a critical manner. The aim was to encourage and instil a sense of critical and creative thinking when watching the carefully chosen SFF-Malaysia films.

The participants were divided into groups to share and learn amongst themselves via discussions and conversations on their own. The selected films have a double effect; highlighting both the science aspect of the film and the learning experience of the participant. Therefore, the viewers have the freedom to both witness the development of technology and learn what it is and how it relates to them. The adapted modules can be run for either half-a-day or a full-day depending on the requirements.

One film was chosen for a half-a-day workshop at the tertiary level (> 19years old), and five films chosen for a full-day workshop for the secondary level (14-17 age group). Before running each of the films, the trainer and content developer, Dr. Yunus Yasin, would give a short seminar on the central ideas relating to the films, i.e. Science and Technology with showing of the films, discussion and activities were organised to explore the subject matter in more depth.



# Summary of the SFF-CCT

# SFF-CCT WORKSHOP - IN KDU

The half-day workshop was held on 29 October at the KDU Campus in Petaling Jaya. The focus of the workshop centred on an award-winning film on "Logical Thinking" called "The Joy of Logic" by BBC, aimed at introducing people to "logical thinking" and its relevance to day-to-day life. The workshop was interactive and included activities related to logic. The participants were Year-I and Year-2 law students. The workshop focused on raising awareness and introducing logical thinking method and how it is used in their daily lives.

The summary of "The Joy of Logic" is as below:

- 1. **Logical Thinking Part 1** An Introduction followed by watching the first part of the film, and then discussion.
- 2. Logical Thinking Part 2 (followed by discussion & activity)
- 3. Logical Thinking Part 3 (followed by discussion & activity)

The film chosen was:

Title : The Joy of Logic Director : Catherine Gale

Produced by : BBC Running Time : 60 minutes

Country: UK Year: 2013 Age Guideline: 16+

This BBC production is a sharp, witty, mind-expanding and exuberant foray into the world of logic with computer scientist Dave Cliff. Following in the footsteps of the award-winning The Joy of Stats and its sequel, Tails You Win – The Science of Chance, The Joy of Logic takes viewers on a new BBC Four roller-coaster ride through philosophy, maths, science and technology, all of which, under the bonnet, run on logic. The film journeys from Aristotle to Alice in Wonderland and Sci-Fi to supercomputers to tell the fascinating story of the quest for certainty and the fundamentals of sound reasoning itself.

# SFF-CCT WORKSHOP GRAND PACIFIC and KHAZANAH

The second workshop was held on 8 November 2014 for 42 secondary school participants, the majority of whom came from various schools in the Klang Valley area, with a small group coming from Johor. The workshop went on for the whole day.

A total of 4+1 films of various lengths and with different themes were shown. After the introduction and ice-breaking activities, the students were given a 90-minute seminar introducing them to science and technology. This was to help them get into the right frame of mind before watching the films. Various activities and experiments were designed to help them understand science and technology better using the 'hands-on' method.

The films were chosen based on the story they tell and the lessons they deliver.

The summaries of the films are as below.

The films chosen were:

1. Microhydro - A Drop for Light - The first film is about "Intermediary Technology" which is a technology that combines complex ideas and methods with cheap and readily available materials. This type of technology is used mostly in developing countries where there is a lack of technology in one's daily life. It shows how people with little access to technology live and how just a little and simple technology can go a long way in helping people. It also shows how this technology which we have taken for granted can make a huge difference in these people's lives.

2. Nine-and-a-Half: A Life Without Plastic - The second film is set in a modern developed country. It shows how dependent we have become on technology. In modern society, we have become almost entirely dependent on technology as it has become an almost irreversible way of life. This film is in sharp contrast to the previous one. The first is set in a society with little technology showing how just a little addition can make a huge difference. The second is set in a society with a lot of technology showing how by removing even a 'little' technology can make a huge difference to the society.

- 3. Quarks & Co: The Robots Are Coming The third film is about modern or most advanced technologies showing robots and how almost any type of activities that humans do can be outsourced to a robot. This film is to show the current achievement and advancement at the forefront of technology and how it has advanced and taken over roles in society. The film is to give the participants an up-to-date status of the technology and somehow our lives are changing now.
- **4. Tomorrow's World: A Horizon Special -** The fourth film is focused mainly on the future. The focus centres on future technology and future methods of research and development towards invention and innovation. The film shows some case studies to show the young participants some insightful ideas into the future. The film guides them to participate in the development of science and technology in the future. The film further goes on to trigger the minds of the young on how to align themselves with the fast-changing world of science and technology.
- **5. Cellulomania -** The fifth film was only shown at the workshop in the Grand Pacific since it has a very creative way of presenting ideas. The film includes emphasizing some of the ethical elements of mankind progressing in science and technology.

After each of the films, a short presentation and discussions ensued. Some brainstorming activities were also designed after each film. For more information on SFF and ASTI, please see the ASTI report related to this project.





A survey was conducted to gather feedback from the participants of the event and the sessions, and to evaluate the effectiveness of the southern region CCT. The survey results were then tabulated and all the 13 sessions and their activities were assessed by the organisers for their suitability, length and comprehension. Evaluation was also done for SFF-CCT workshop. See SSF report for evaluation on SFF-CCT workshop.

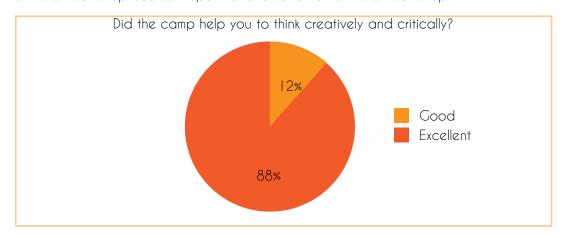


Figure 1: CCT 2014 - Did the camp help you think creatively and critically?

The survey was conducted among the 25 students on the Southern Region CCT Camp 2014. A majority of the participants (88%) ranked the camp excellent and 12% ranked good, that the camp had helped them think creatively and critically. None rated it as average or poor. The results show that all participants rated the camp as very high in helping them think in a critical and creative manner.

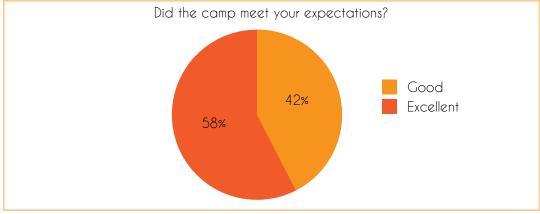


Figure 2: CCT 2014 - Did the camp meet your expectations?

The figure above shows that 58% of the participants ranked the CCT Camp as meeting their expectations and 42% ranked the camp good. Most of the students we met were very happy with the camp. After the camp, we also obtained feedback from teachers and parents who said that their kids had really enjoyed the camp.

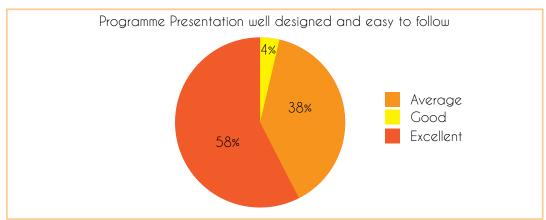


Figure 3: CCT 2014-Programme Presentation well designed and easy to follow.

We see that the presentations, according to the participants, were well-designed and easy to understand. Some of the average score was due to the ability of some participants to understand advanced English.

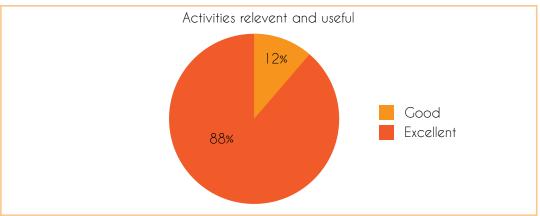


Figure 4: CCT 2014-Activities relevent and useful

The activities received a very good response and that the participants have found them useful in their lives. We can also see that the participants seemed to enjoy the activities more than the presentations.

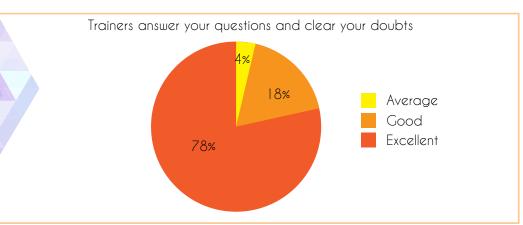


Figure 5: CCT 2014-Trainers answer your questions and clear your doubts

The participants also rated the trainers very high in the latter's ability in answering any question that the former had during the camp. The camp was designed to be interactive, and, as such, this is an important element to gauge the success of the camp. The camp was designed to make learning fun, and, therefore, it was imperative that the trainers were helpful and friendly. As we can see in the above chart, the trainers did an excellent job.

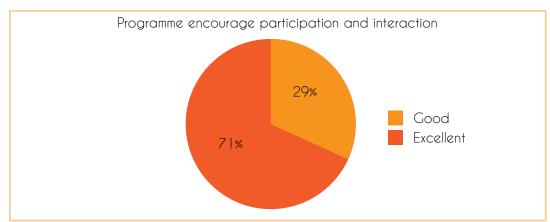


Figure 6: CCT 2014-Programme encourage participation and interaction

One of the main aims of the CCT was to empower the learner to take control of his or her learning futures. The teacher or trainer plays the important role of facilitating this process. The participants answered overwhelmingly positive that the programme had encouraged participation and interaction.

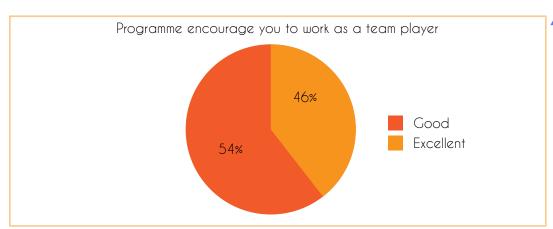


Figure 7: CCT 2014-Programme encourage you to work as a team player

Cooperative effort and learning are important in the modern world since people work as teams. CCT encourages both competitive and cooperative problem-solving and learning techniques. We see that cooperative teamwork was encouraged during the programme.

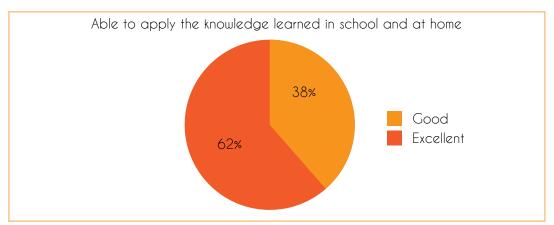
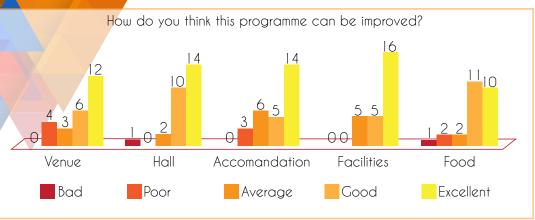


Figure 8: CCT 2014-Able to apply the knowledge learned in school and at home

One of the objectives of CCT camp is for the participants to be able to use Creative and Critical Thinking at home or in their daily life. The modules were developed to be relevant to everyday life. Based on the above question, all the respondents agreed that they were able to use the knowledge acquired outside of the camp.



Graph 1: CCT 2014-How do you think this programme can be improved?

Most of the respondents were happy with the venue, hall, accommodation and food provided. The respondents were happy with the location of the venue by the beach. However, there were some issues with the shared toilets as some of them were not clean.

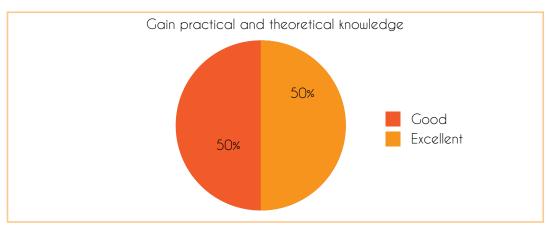


Figure 9: CCT 2014-Gain practical and theoretical knowledge

CCT Camp provides some theory on using creative and critical thinking. However, the focus is more on practical aspects of thinking with lots of activities and games. Most respondents were happy with both the practices and practical knowledge gained during the event.

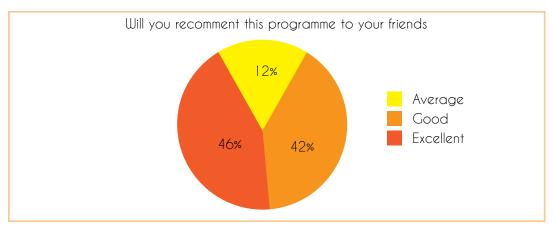
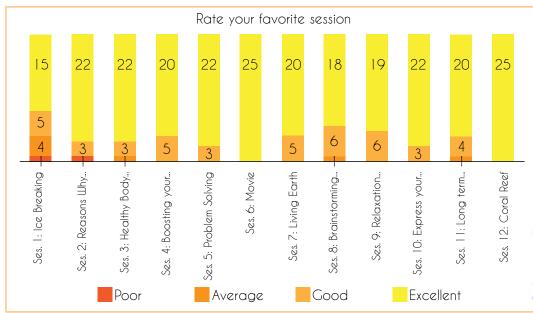


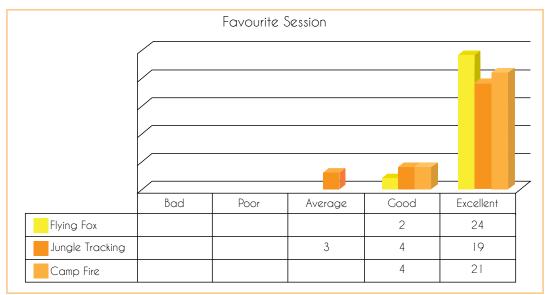
Figure 10: CCT 2014-Will you recomment this programme to your friends

One of the most important gauges of the success of the project is if the participants would recommend it to their friends. Based on the question above, we see that a majority of the respondents were very happy with the camp.



Graph 2: CCT 2014-Rate your favorite session

We can see that all the modules were fun and were rated high by the participants. Further improvement can be made for some modules based on this result.



Graph 3: CCT 2014-favorite session

All the outdoor activities were also rated very high by the respondents which shows that outdoor activities are an integral part of the camp and should be developed further.

All the participants overwhelmingly agreed that the CCT camp met their expectations and were eager to participate again. They also indicated that they would recommend this camp to their friends and families.

# Public Relations

Flyers about the CCT Camp were distributed to selected schools in Malaysia via e-mail, and were also posted via hardcopy together with an invitation cover letter. Additionally, the camp was promoted to the general public via newspaper articles, website and social network Facebook.

A promotion viral video was shared through video sharing websites, social media and e-mail.









Our main sponsors for the Creative and Critical Thinking Camp 2014 were Ms. Wan Khatina Binti Wan Mohd Nawawi and YB Raven Kumar Kishnasamy. We also charged each participant RM350 to help cover some of the project expenses. We however provided funding or scholarships to deserving students who could not afford to come for the project. We are extremely grateful to these funders whose generosity helped ensure the success of the event. An initial seed fund amounting to RM1000 was received from ASTI to help run this camp. The funds donated by our main sponsors are as follows:

No	Sponsor	Amount (RM)
1	Ms. Wan Khatina Binti Wan Mohd Nawawi	5,000
2	YB Raven Kumar Kishnasamy	2,070
	Grand Total	7,070

Table 7.1: List of Sponsor

# Trainers Cost - for CCT, SFF and ASTI EduTour (incurred but donated by the trainers)

No	Sponsor	Cost (RM)	Units	Total (RM)
1	Ms. Noorul Huda	1000/day	3	3,000
2	Dr. Mohamed Yunus Yasin	4000/day	6	24,000
3	Maj. Dr Vikneswaran .M	3500/day	4	1 4,000
4	Ms. Archana	1000/day	2	2,000
	43,000*			

Table 7.2: Trainers Cost.

<sup>\*</sup> cost incurred but donated to the project.



# Financial Statement of CCT 2014

# Statement of Income and Expenditure Account for the Year Ended 30 October 2014

Income 2014	Amount (RM)
Balance Brought Forward	3,674.99
Ms. Wan Khatina Binti Wan Mohd Nawawi	5,000
YB Raven Kumar Kishnasamy	2,070
Participation Fee	5,600
ASTI Seed Funding of Project	1,000
Total Income	17,344.99
Less : Expenditure	
Accommodation, Meal & Venue	5,023.80
Prizes & Souvenirs	1868.45
Insurance	275.00
Printing & Promotion	282.64
Camp Activities Things	359.20
Transportation & Telecommunication	1 420.00
Usage of office space and utilities- Paid to ASTI Secretariat	4,400
Project officer salary and benefit for 2 months	7,341.80
Total Expenditure	20,970.89
Income and Expenditure Account	
Total Income	17,344.99
Total Expenditure	20,970.89
(Deficit)/Surplus	(3625.90)

Table 7.3: Statement of Income and Expenditure Account for the Year Ended 30 October 2014

Note: ASTI has given an initial seed fund for the CCT Camp



The following recommendations are proposed for implementation for the next camp, based on the internal post-mortem conducted between the Working Group and ASTI Secretariat.

# Recomendations

- A standardized module with various types of activities needed.
- Participants give full commitment and are actively involved in all the activities
- · Invite more Working Group members for the meeting.
- Increase the tools of mass media on publicity and create more awareness on the CCT Camp.
- · Encourage and invite more volunteers to be involved in the camp.
- Funding needs to be improved

# Strength

- · Modules are complete and interesting.
- · Participants very positive towards camp.
- Participants give full commitment and are actively involved in all the activities.
- Trainers could attract the participants effectively through their activities.
- · No health-related cases have been reported after the camp.
- Suitable for primary level student.
- · Location is suitable for camping mode.
- · Very committed volunteers.

# Weakness

- · Location of camp always changes.
- · Less publicity.
- Lack of volunteers.
- Lack of funding.
- · Not enough members in WGC.
- · Location of the camp is confirmed at the very last minute.
- Module should plan a variety of activities for the available module.
- Venue of the camp was confirmed very late.
- Publicity not so effective

# Opportunity

- · Secondary school module needs to be prepared.
- Good camp location can attract more participants.
- More publicity in mass media can improve number of participants.
- Recruit volunteers earlier.
- · Various outdoor activities could attract more participants.
- Trial camp for publicity.
- · Out-door activity was carried out which is available at the location.

# **Threat**

- · Camp can be postponed if not enough funding.
- · Camp can be postponed if not enough participants.
- · Last-minute participation pulled out.
- · Cleanliness of toilets should be considered.
- · Last-minute withdrawal from participant.
- · Least feedback from the schools.









Creative and Critical Thinking Camp has become a benchmark for our students to develop higher-order thinking skills. This has become the venue for all students to have an opportunity to enhance their thinking and innovation skills which can transform their life. The camp has introduced the concepts of thinking creatively and critically, of using logical & empirical reasoning to solve problems, of using competitive & collaborative methods to produce an outcome when making choices in many aspects of the participants' life.

Motivated experts from various fields, who conducted the camp, put in a lot of effort in order to deliver the best knowledge and skills to the participants. All of them helped ASTI as volunteers rather than as paid staff. Here, ASTI would like to show its sincerest gratitude to all the volunteers who contributed their time and knowledge towards the success of this camp. ASTI really hopes that the students will be successful in their future personal undertakings and also become a valuable asset for this country. ASTI would also like to thank its donors who contributed funding for the success of the camp.

In addition, based on this year's activity, ASTI has found that the shorter one-day CCT workshop has a demand and could be developed for participants who may not be able to stay for 3 days. This would be recommended to the next CCT Working Group.

In the years to come, ASTI looks forward to reaching more students and disseminating the valuable skills and qualities through the Creative and Critical Thinking Camp.



# **Appendix**

The following is a summary of each of the Creative and Critical Thinking Camp sessions:

Session 1 : Ice Breaking

Aim : To help the participants feel at ease, and set the tone for the camp.

Areas of Skills: Creativity, Socialising.

This starter allowed the participants to immediately think out-of-the-box from the very beginning of the camp and provided them with a taste of what was to come. This was a different kind of ice-breaker since it not only broke the ice amongst the participants of the camp, but also set the stage for the event, i.e. it was not going to be a school-like environment. The participants did not introduce themselves to each other with their real names! They were instead given recycle material and markers to create and draw their own 'Avatar' and provide it with a name, mission and hero. Each card was illustrated with a drawing of a super-hero figure.

Session 2 : 5 Reasons Why Humans Are Capable of Genius

Aim : To trigger the participants' creativity.

Areas of Skills : Communicating, Comparing, Synthesizing.

Creativity is a human characteristic. It gives all humans genius-like capabilities. The characteristics which lead a human to be genius are: boundless curiosity, abstract thought, unstoppable creativity, favourable conditions and creative surges. For each criterion, the presenter conducted an activity to highlight the participants' natural ability to be creative and ability to understand complex concepts. If they had been unable to solve the activities individually, they were requested to discuss in groups. This session was mainly conducted to make all the participants understand the objectives of participating in the Creative and Critical Camp 2013 and to realise their own true potential.

Session 3 Aim

- : Healthy Body and Healthy Mind
- To introduce super food and their benefits to participants. To pursue a healthy and active lifestyle and create opportunities for children to become familiar with healthy choices through games, crafts and tasting challenges, so that they would be more likely to make smart choices in their diet and activities.

Areas of Skills : Sensitivity, Reasoning.

You are what you eat. Each participant was asked to list the healthy foods they eat at home every day together with the benefits of each. Most of them were not aware of their benefits. Then, 8 booths were prepared in different locations in the hall, each with different super foods, and they were: yoghurt, olive oil, sardines, whole grain bread, blueberries, tomatoes, baked beans and almonds. They had to eat/taste all the foods and name them, followed by listing the benefits of each food. The clues of the benefits were pasted on the pillars around the hall. The students enjoyed tasting the food and linking food with benefits. This put the objective of eating in a different light rather than just for hunger.

















Session 4 Aim : Boosting Your 5 Senses

• To acquire knowledge about the 5 senses of the human body which provide input to the brain which are: sight, smell, touch, taste and hearing. To help participants develop stronger creativity via senses and express an appreciation of the world around them through their new awareness of their 5 senses.

Areas of Skills: Sensory Integration, Analyzing, Interpreting.

The input to our brain is coming from all our five senses: smell, sight, sound, touch and taste. Thus, to test the participants' senses, for each category, the presenter conducted an activity. Smells are very useful at evoking powerful memories and feelings. Our eyes contain 130 million photoreceptors which enable us to distinguish millions of colours and hundreds of shades of brightness, as well as size, perspective, distance, shape and movement. The human ear is made up of several parts which transmits impulses and 'feelings' to the brain. Our skin is the largest organ in our body, thus nerve endings in the skin and other parts of the body transmit sensations to the brain. Lastly, human taste receptors are able to detect 4 basic tastes: salty, sweet, bitter and sour. There is also a 5th taste sensation, 'Umami', detected by taste buds sensitive to amino acids. The above 5 senses were activated through an individual activity conducted for each by the participants.

Session 5 : Problem Solving (CSI)
Aim : To instil critical thinking.

Areas of Skills: Evidence Analysis, Critical Thinking, Comparison, Reasoning,

Strategizing.

All groups of participants were briefed with the basic knowledge of fingerprint analysis, footwear and types of evidences. They made their own fingerprints and footwear for reference during the presentation. During this session, they were exposed to how the comparison on fingerprints and footwear would be made in order to narrow down suspects in a criminal investigation. Interestingly, all the participants were able to describe their own fingerprint type and footwear. At the end of the session, groups were given a case study of barefoot burglars. Each group was given sample evidence and descriptions about the suspect, as a guide for them to identify the suspect of the crime. Group leaders were required to write all the evidences that they had uncovered on a piece of paper and present them to the presenter. Each group explained to their fellow campers how they had reached their conclusions and named their suspect. The presenters acted as forensic cross-examiners and questioned the evidences presented to ensure that the participants understood the process.

# Session 6:

The Life of Pi Movie and Review

# Aim:

To encourage thinking while engaging in everyday activities. To show creativity has no boundaries.

# Areas of Skills:

Creative Thinking, Critical Thinking, Comprehension, Focused Discussions, Synthesis, Movie Review, Moral and Ethics.

This session was shown as the evening activity after dinner. The reason for showing it on day one of the event was to enable the participants to be conscious of the idea that creativity has no boundaries. An aspiring Canadian author interviews the Indian storyteller Pi Patel to hear the firsthand account of his adventures. Pi recounts his upbringing in French-occupied India, where his father owned a zoo. When Pi's family business failed, they embarked on a sea voyage to Canada to begin a new life. One night aboard their Japanese cargo ship, in the middle of the ocean, a violent and deadly storm hit and sank nearly all that Pi holds dear. He survived in a lifeboat with several of their zoo animals, including a fearsome Bengal tiger. In a struggle to survive, Pi and the tiger forged an unexpected connection that gave him daily motivation to live. Life of Pi is a tale of faith, hope and the fight to survive. All the participants expressed that they had enjoyed watching and thinking about the movie.

# Session 7:

Living Earth

### Aim:

To make the participants think about life, biodiversity and what they mean to Earth.

# Areas of Skills:

Life, Biodiversity, Empathy.

Planet Earth is unique since it is the only loving planet in the Universe. Its biodiversity on land, in air and water is amazing, and the interconnectivity of all living beings to each other and to Earth is nothing short of a miracle.

# Session 8:

Relaxation and Concentration

# Aim:

To provide a brief but effective and convincing training in relaxation and to realize and understand the power of thought and concentration. To demonstrate how to utilise relaxation methods effectively in one's daily life.

Areas of Skills:

Concentration, Focusing, 'Emptying the Mind', Ability to Follow Instruction.

Practising a relaxation technique is a statement from your mind to your body that you feel safe and secure in the world. The body can then switch off the adrenaline, saving you enormous amounts of energy and reducing 'wear and tear' on your body. As a result, the body can refocus its energy on repair and regeneration. For this session, all the participants were exposed to mood management and deep relaxation. The presenter did step-by-step movements to bring the participants to a relaxed mood within them. This session was designed to educate the participants on how to release stress after exhausting (both mind and body) activities throughout the day.

# Session 9:

Coral Reef

### Aim:

To introduce the reefs in the ocean and their importance to biodiversity.

# Areas of Skills:

Life, Biodiversity, Empathy.

Reefs are the 'rain forest' of the ocean. The reefs are actually living entities that grow and die. The biodiversity of the oceans is amazing, and the reefs of the world play an important role in maintaining the oceans' biodiversity. Reefs play a role as a breeding ground and protector of many living beings in the oceans. A short game was done to illustrate the importance of reefs in protecting life in the oceans.

# Session 10:

Boosting Your 10 Intelligences

# Aim.

To enhance the participants' 10 intelligences, making it conducive to release the inner creativity.

# Areas of Skills:

Problem-Solving, Analyzing, Physical Ability, Emotional Control, Alertness, Communication, Interpretation, Hypothetical.

It is now accepted by many experts that the IQ of human beings consists of more than I area of intelligence. This session divided intelligence into 10 areas which are: Mathematical, Practical, Visual, Physical, Social, Emotional, Linguistic, Musical, Spiritual and Environmental. For each area of intelligence, the presenter conducted an activity to demonstrate and, at the same time, train the participants to trigger the 10 intelligences within them.





Session 11: Lateral Thinking

Aim:

To enhance the creative and critical thinking in participants.

# Areas of Skills:

Brainstorming, Creativity, Criticality, Thinking Outof-the-Box, Competition versus Cooperation.

Lateral thinking is to think indirectly and use a creative approach, using reasoning that is not immediately obvious and involving ideas that may not be obtainable by using only traditional step-by-step logic to solve a problem or find a solution. As an activity, participants were required to choose an object and write down as many possible uses of the object as possible. This was time-based and repeated over and over again, and each time the participants added uses to the list. Then the items with the most uses in each group were chosen and all members of the group worked together to add more uses for the object, and they afterwards presented it to everyone.



# Session 12:

Expressing Your Creativity

# Aim:

For participants to develop their creative skills through choreography, to boost confidence, to take participants completely out of their comfort zone

# Area of Skills:

Confidence, Communication, Cooperation, Rhythm, Coordination, Creativity, Presentation, Having Fun.

The participants in their groups were given 5 different dance moves and 2 directional moves in a card chosen randomly and were asked to create a short dance to accompany a piece of music with these moves. A video example was shown to give them a feel of what to do. The music chosen was a lively popular piece of music which they all knew. Each group was then asked to perform their dance in front of the others for 2 minutes. Before they started, they all complained and thought that they couldn't do it, but by the end of the session they all managed it. The exercise achieved its aim in instilling belief in oneself and promoting confidence to do one's best even if it were out of one's comfort zone. Towards the end, the participants were reluctant to stop!

# Session 13:

Long & Short Term Memory Tips

# Aim:

To indicate the importance of long and shortterm memories and how they can be used.

# Areas of Skills:

Memorizing, Quick Thinking, Eliminating.

Scientists have discovered that the brain uses several means of remembering information for varying lengths of time. Short-term memory was demonstrated with the use of two activities. First, a facilitator was asked to leave the hall. Then the participants were asked in quick succession many questions related to the appearance of the person. Next, an image was shown on the screen for a few seconds and questions were asked to describe the image. These activities helped explain the importance of long and short-term memories and how they function.

