



*Creative & Critical
Thinking Camp*

2016
REPORT

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Executive Summary

Creative and Critical Thinking (CCT) Camp is a camp held by the Association of Science, Technology and Innovation since 2013. This camp is conducted for students to encourage them to think creatively and critically and also to introduce the usage logical & empirical reasoning to solve problems and, of using competitive & collaborative methods to produce an outcome when making choices. One of the aims of the camp is also to help the young realise that learning is fun and not just memorising facts.

In 2016, the camp was held at Nur Lembah Pangsun, Hulu Langat from 28th May 2016 till 30th May 2016. This was a 3 day 2 night camp. A total number of 27 students attended the camp. The camp was conducted for primary school students. The survey results from the camp show that the participants agreed that the camp met their expectations.

Besides that ASTI was also invited by MCEF to conduct a one day CCT-Ilham workshop for the Ilham camp organised by them. CCT-Ilham is a workshop funded by MCEF and partially subsidised by ASTI. In 2016, MCEF organised camps for Form 1, Form 2, Form 3 and Form 4 students. About 7 representatives from ASTI were trainers at CCT-Ilham workshops. CCT-Ilham was held in North, Perak, Central and South regions. A total of 971 students attended CCT-Ilham in 2016.

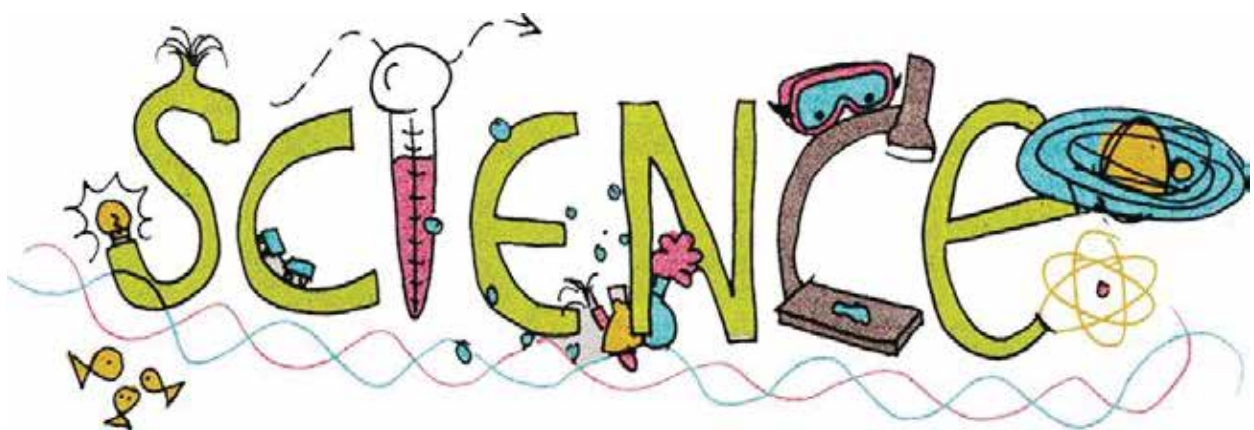
In conclusion, we have conducted 1 project based camp and 14 workshops across the country in 2016.

1.0 Introduction

Young people are more spectators rather than participants in their individual 'learning journey', we partly do this by overwhelming them with theories and "facts & figures", which they memorize for tests and exams and soon forget afterwards. The relevance of some of these lessons to their future is not contextualised. It should be argued that education must help students awaken and expand their creative and critical minds by empowering the learner to take charge of his or her understanding of the world around him or her. Subjects and topics are then tools used to nurture this new independent thinking mind. Thus, any subject, be it science or the arts, if 'delivered' properly, is able to create this ultimate goal.

Creative and Critical Thinking (CCT) camp or workshop was initiated with this in mind, coordinated by a team of experts who have extensive experience in the field of Science, Technology and Innovation as well Youth Engagement. This camp 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 any aspect of the participants' lives. The methods were conveyed to them via indoor and outdoor lessons and fun activities in a "camp" environment.

We conducted a pre-pilot programme for 36 young students after their UPSR. We ran the programme at the end of November 2013. It was an all-inclusive 3-day 2-night event. Upon its success, we fully implemented CCT for all target groups, focussing on primary and secondary students.



2.0 Aims & Objectives

- The camp is focused on helping to empower the young to think in both creative and critical manner. It consists of presentations emphasising activities and 'hands-on' method to help the young and youth build this capacity.
- To build effective resources, guides, and know-how to make this a recurring camp for young people across the country.
- To use competitive and collaborative methods to produce positive outcomes when making choices.
- To help the young realize that learning is fun, not just memorizing facts but by understanding what they learn.

Target Group and Type of Camps

There will be 3 different Levels of target groups which are Primary School, Secondary School and University Students. There are 2 different types of camps/workshops, which are:

1. Project camp/workshop – fully run by CCT working group
2. Exclusive camp/workshop – tailor-made upon request from other organisation and institutions.

In 2016, we have conducted 1 project based camp and 14 workshops across the country.

3.0 Mode of Implementation

The Implementation of the project is as follows:

ASTI appointed Major Dr. Vikneswaran Munikanan as Project Director for 2016. The Project Director in turn formed his Project Working Group to oversee and be responsible for the delivery of the project. ASTI remained responsible for the development of the overall policy of the project / programme. ASTI Research and Development department was tasked with improving and developing new modules for CCT 2016.

The Project Working Group:

- Worked together with ASTI to identify funders and partners for the project
- Formed a Content Development team
- Developed the content and modules for the programme with ASTI R&D Department (copyright for the event content is owned by ASTI R&D Department)
- Identified and trained volunteers with ASTI R&D Department
- Identified the venue and determined the logistics for the event
- Ran the event
- Conducted a post-mortem after the event and identified ways to improve the programme
- Dissolved and passed the project back to ASTI until the next CCT Project Director is appointed.

Content Development by ASTI R&D

- Each member of the team was allocated his or her respective areas to develop based on his or her expertise and subject knowledge
- The overall camp programme, the daily events and the individual sessions were established to ensure a proper content flow
- The individuals responsible carried out research on their allotted areas
- The individual session content was created
- Presenters and facilitators were allocated to conduct the sessions and present the required content
- The Content Development team worked with ASTI R&D Department to bring all aspects including the modules together to create the camp content as per agenda

Participant Selection Process

- Flyers were prepared and sent out to schools' PIBG heads in about 2000 schools.
- Telephone calls were made to some school headmasters and teachers to inform them of the project
- Application forms were prepared and posted on ASTI website for downloading and sent to schools PIBGs.
- Application forms received were vetted for qualification and participants were chosen.
- Programme Booklet and various other necessary information were sent to participants
- Participant arrival and materials were prepared.

4.0 Camp Summary

We conducted one camp in 2016 in Hulu Langat. Creative and Critical Thinking (CCT) Camp 2016 was a three-day event which started on Saturday morning and ended on Monday afternoon. The details of the camp are as below:

Date: 28 May 2016 - 30 May 2016 (3 days 2 nights)

Venue: Nur Lembah Pangsun, Lot 116 Batu 19 3/4, Hulu Perdek, 43100 Hulu Langat, Selangor

Day One

Saturday 28 May 2016. The day started at 9.00am with the arrival and registration of the participants at the hall foyer. During the registration, participants received their nametag, camp groupings, T-shirt and Camp bag. There was a short briefing on Camp safety and Rules & Regulations as well as a briefing on the programme for Day 1. The programme started in the hall at exactly 11am with the participants seated according to their groupings at 5 round tables of 6 participants.

There was an ice-breaking session conducted for the participants, which was to set the tone for the camp as it required the participants to immediately think “out of the box” from the very start. It provided them with a taste of what was to come. The participants were then involved in various indoor activities in the afternoon sessions such as 5 Reasons Why Humans Are Capable of Genius, Healthy Body and Healthy Mind, Boosting Your 5 Senses, Problem Solving (CSI). The participants were then given time to freshen up and dinner was served at 7pm and after dinner the participants enjoyed the evening session which was an animated movie followed by a discussion about the movie. Day one sessions were over and the participants had their supper and retired for the night. After this, the Event Committee continued with the discussion of the day's event followed by the set-up preparations for the following day.



4.0 Camp Summary

Day Two

Sunday 29 May 2016. The full day's activities started at 6.45am, with the participants led by Mr. Aberajithan Shankar for morning exercise followed by shower and breakfast. After breakfast and before entering the hall, the participants and organisers gathered in the field for jungle tracking. The morning session started at 9am and continued until lunch at 12.15pm with sessions on Living Earth, Problem Solving, Brainstorming and Mind Mapping. After lunch and a quick warm-up game the sessions continued with Relaxation, Thought Power & Concentration, Boosting Your 10 Intelligences and Lateral Thinking. The participants returned to the hostel at around 6.30pm, relaxed and had dinner. The evening session continued at 8pm with the Expressing Your Creativity module. The participants then retired for the night after having their supper at 10.30pm.

Day Three

Monday 30 May 2016. On the final day, at 8.00am the participants, after another morning exercise session, gathered in the cafeteria for breakfast. Then, after a short warm-up game, the sessions continued with Problem Solving (CSI) follow-up and Short Term Memory Tips. These sessions finished at 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. Certificate of Participation was presented to each participant. Project Director Maj. Dr. Vikneswaran and ASTI President Dr. Yunus Yasin each gave a short speech and closed the CCT 2016. The full event agenda is provided in Appendix I.



5.0 Camp Programme Sessions

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



5.1 Session 1: Ice Breaking

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



5.2 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 were unable to solve the activities individually, they were requested to discuss in groups.



5.3 Session 3: Healthy Body and Healthy Mind

Aim : To introduce healthy and super foods 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.

5.0 Camp Programme Sessions

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



5.4 Session 4: Boosting Your 5 Senses

Aim : To acquire knowledge and skills about the 5 senses of the human body which provide input to the brain, which are: sight, smell, touch, taste and hearing. To help 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 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 sounds 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 activity conducted for each participant.



5.5 Session 5: Problem Solving (CSI)

Aim : 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 are made 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 burglar. 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 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 the participants understood the process.

5.0 Camp Programme Sessions

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



5.6 Session 6: Ratatouille 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, Discussions, Synthesis, Cooperative Action

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. The movie has important lessons about life, friends, and family while questioning whether anyone should pursue their calling ambition or simply go back to ordinary life. Ratatouille is a tale which carries the message “it’s not where you came from that matters, it’s where you are going”. A discussion followed after the movie among the participants in order to understand the moral of the story of the movie. They all expressed that they had enjoyed watching and thinking about the movie.



5.0 Camp Programme Sessions

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



5.7 Session 7: Relaxation

Aim : To provide a brief but effective and convincing training in relaxation. To introduce using relaxation methods effectively in daily life.

Areas of Skills : Concentration, Focusing, 'Emptying the Mind', Ability to follow instructions.

Practicing 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. The body can then 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 is to educate the participants how to release stress after exhausting (both mind and body) activities throughout the day.



5.8 Session 8: Thought Power and Concentration

Aim : To make the participants realise and understand the power of thought and concentration.

Areas of Skills : Concentration, Focusing.

Thought power is the key to creating your reality. Everything you perceive in the physical world has its origin in the invisible, inner world of your thoughts and beliefs. To become the master of your destiny, you must learn to control the nature of your dominant, habitual thoughts. By doing so, you will be able to attract into your life that which you intend to have and experience as you come to know the 'Truth' which is that your thoughts create your reality. It takes hard and persistent work to translate creative ideas into reality, and this work takes concentration. Concentration is the powerhouse of memory. Based on these conditions, this session was found vital. A few techniques were instilled to guide the participants to be able to concentrate.

5.0 Camp Programme Sessions

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



5.9 Session 9: Creativity

Aim : To encourage the participants to inculcate creativity in delivering and presenting a topic or in communication.

Areas of Skills : Creativity, Think Out of the box

Everybody has the capacity to be creative. This session shared why some people produce a constant flow of new ideas while others don't. The participants were requested to first of all think about what they might say to a tree, if they could talk to trees. Then as a group they created a conversation with some being trees, others humans. They then had to say the conversation in front of everyone to hear. All the groups had their own creative way to present the conversation with some making props and others using imaginary props. The session is designed to break down barriers in our own thought.



5.10 Session 10: Who Am I (Understanding Yourself-Empathy for Others)

Aim : For participants to understand the meaning of empathy

Areas of Skills : Understanding, Listening, Feeling, Creating, Concentration, Cooperation, Understanding Values - Empathy

This session was aimed at reaching the inner feelings of the participants, to alert them to their sense of self and how they live and feel. At the same time, it tries to reach them on a deeper level in the hope that they would understand that others may not be feeling or living the same as they are. In addition, that being different or knowing someone who is different from you is not something to be afraid of or to make fun of but try to understand and care for. The story of the daily life of an orphaned street girl called Maya was used as the tool to get the idea of having empathy towards others across. The follow-up activity was for the participants in their groups to create their own ending for the story of Maya. This was presented the following day before the end of the Camp.

5.0 Camp Programme Sessions

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



5.11 Session 11: Boosting your 10 Intelligences

Aim : To enhance the 10 intelligences in participants, making it conducive to release the creativity within.

Areas of Skills : Problem-Solving, Analyzing, Physical Ability, Emotional Control, Alertness, Communicating, Interpretation, Hypothetical.

It is now accepted by many experts that the IQ of human beings is comprised of more than 1 area of intelligence. This session divided them into 10 areas of intelligence. These are Mathematical, Practical, Visual, Physical, Social, Emotional, Linguistic, Musical, Spiritual and Environmental. For each intelligence, the presenter conducted an activity to demonstrate and at the same time train the participants to trigger the 10 intelligences within themselves.



5.12 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.

Areas 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 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 and achieved the aim of instilling belief in the self and having the confidence to do the best in something even if it was out of one's comfort zone. Towards the end, the participants were reluctant to stop!

5.0 Camp Programme Sessions

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



5.13 Session 13: Brainstorming

Aim : To initiate critical thinking based on the camping activities, as to summarise the sessions throughout the camp.

Areas of Skills : Brainstorming, Idea Generation, Mind-mapping, Synthesizing.

Each group was requested to brainstorm on how, once they had returned home, they were going to share what they had learned during the camp with their friends. Participants were encouraged to let their minds 'freewheel' so that new and original ideas would emerge. Tips on how to organize a productive group discussion and brainstorming were also explained and shared with the participants.



5.14 Session 14: Short Term Memory Tips

Aim : To indicate the importance of short term memory and how it 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 simply demonstrated with the use of two activities. Firstly 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 short-term memories and how it functions.



5.15 Session 15: Lateral Thinking

Aim: To enhance the creative and critical thinking in participants.

Areas of Skills : Brainstorming, Creativity, Criticality, Thinking out of the box, Competition vs. 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 for the 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; then they presented the uses to everyone.

5.0 Camp Programme Sessions

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

5.16 Session 16: Living Earth

Aim : To introduce the living earth and show the unique living planet before the jungle trekking activity.

Areas of Skills : Critical Thinking, Perspective. Understanding the Environment, Holistic thinking.



6.0 Summary of the Event Agenda

SATURDAY 28 May 2016	
TIME	ITENARY
9.00am - 10.30am	Registration
10.45am - 11.30am	<u>Session 1 : Ice breaking</u> Time : 30 mins (5 mins explain, 10 mins draw, 15 mins share)
11.30am - 1.00pm	<u>Session 2 : 5 Reasons Why Humans Are Capable of Genius</u> Time : 1 Hour for 5 Activities, Conducted Parrallel as 5 Stations were set-up, also with presentations)
1.00pm - 2.30pm	Lunch Hour
2.30pm - 3.30pm	<u>Session 4 : Boosting Your 5 Senses</u> - Time : 1 Hour
3.30pm - 4.30pm	<u>Session 3 : Healthy Body and Healthy Mind</u> - Time : 1 Hour
4.30pm - 5.00pm	Tea Break
5.00pm - 6.15pm	Flying Fox
6.15pm - 7.30pm	Refreshing & Dinner
7.30pm - 7.45pm	Warm-Up Game
7.45pm - 10.00pm	<u>Session 6 : Movie and Review</u> - Time : 2 Hours 30 Minutes
10.00pm	Supper and Bed Time

SUNDAY 29 May 2016	
TIME	ITENARY
6.30am	Rise
6.45am - 7.30am	Morning Exercise
7.30am - 8.00am	Breakfast
8.00am - 8.40am	Living Earth
8.45am - 10.30am	Jungle Trekking
10.30am - 11.00am	Freshen Up and Shower & Morning Tea Break
11.00am - 11.15am	Photography Session and Warm-Up Game
11.15am - 12.00pm	<u>Session 5 : Problem Solving (CSI)</u> - Time : 45 Minutes
12.00pm - 1.00pm	<u>Session 9 : Brainstorming & Mind Mapping</u> - Time : 1 Hour
1.00pm - 1.45pm	Lunch

6.0 Summary of the Event Agenda

1.45pm - 3.00pm	<u>Session 8 : Relaxation & Concentration</u> - Time: 1 Hour 15 Minutes
3.00pm - 4.00pm	<u>Session 9 : Communication</u> - Time: 1 Hour
4.00pm - 4.30pm	Tea Break
4.30pm - 5.30pm	<u>Session 10 : Boosting Your 10 Intelligences</u> - Time: 1 Hour
5.30pm - 6.30pm	<u>Session 11: Lateral Thinking</u> - Time: 1 hour
6.30pm - 8.00pm	Refreshing & Dinner
8.00pm - 10.00pm	<u>Session 12: Expressing Your Creativity</u> - Time: 1 Hour
10.00pm	Supper and Bed Time

MONDAY 30 May 2016	
TIME	ITENARY
6.30am	Rise
6.45am - 7.30am	Morning Exercise
7.30am - 8.00am	Freshen Up and Shower
8.00am - 8.30am	Breakfast
8.30am - 8.45am	Warm-Up Game
8.45am - 9.45am	<u>Session 7 : CSI</u> - Time: 1 Hour
9.45am - 10.30am	<u>Session 13 : Short Term Memory Tips</u> - Time : 45 Minutes
10.30am - 10.45am	Morning Tea Break
10.45am - 11.30am	Activity
11.30am - 12.00pm	Closing Ceremony
12.00pm - 1.00pm	Check-Out & Lunch
1.30pm	Parents Pick-Up

6.0 Summary of the Event Agenda

Presenters of CCT

Presenters Name	Affiliation
Major Dr Viknswaran Munikanan	Snr Lecturer, UPNM
Dr. Mohamed Yunus Yasin	Fellow, Khazanah Nasional
Assoc. Professor Ir. Dr. Sivarao Subramonian	Director, UTeM Commercialization Centre
Mr. Pratheep Sandrasaigaran	Lecturer in Manipal International University
Ms. Magesh Muthunaikar	Early Childhood

Facilitators of CCT

Presenters Name	Affiliation
Mr. Aberajithan Shankar	Facilitator
Ms. Kartieyaeni	Facilitator
Mr. Suthesan Baskaran	Facilitator
Ms. Thebahlaxmi	Facilitator
Mr. Kumaresan	Facilitator
Mr. Ragavan	Facilitator
Mr. Vikram	Facilitator

7.0 Camp Evaluation

A daily survey was conducted to gather feedback from the 23 respondents of the event and sessions, and to evaluate the effectiveness of the 3 day camp held at Nur Lembah Pangsun, Hulu Langat (Selangor) from 28 May 2016 till 30 May 2016. Before leaving the hall at the end of each day's sessions, the participants gave their assessment of each session. The survey results were then tabulated and the sessions and their activities were assessed by the organisers for their suitability, length and comprehension. 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.

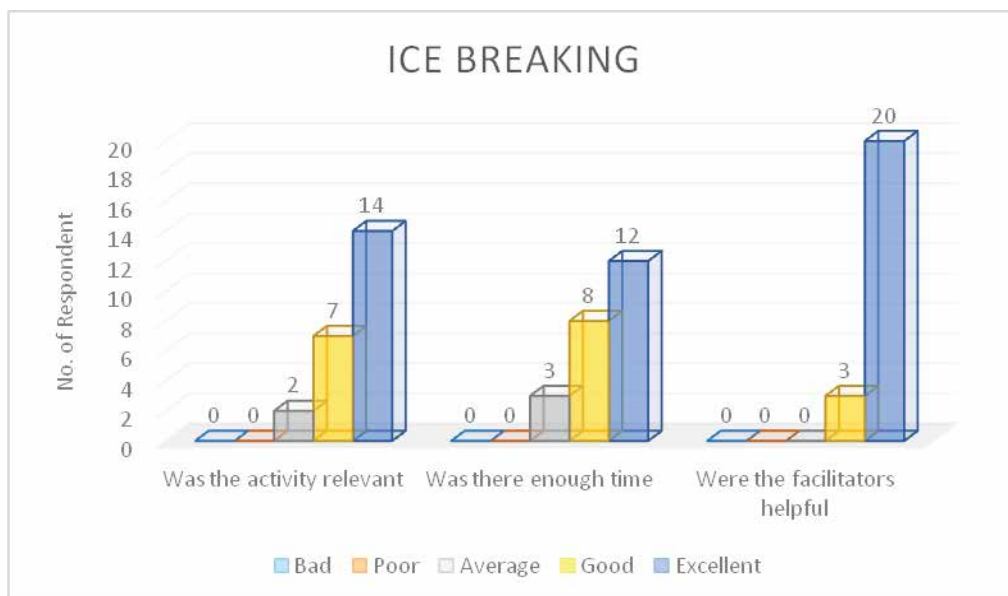


Figure 1 : CCT 2016 Ice-Breaking

A survey was conducted among the 23 students at the camp. Based on Figure 1, a majority of the participants rated excellent for the session of ice-breaking; they also rated excellent for the timing given to them and said that the facilitators were helpful in the session. This allowed the participants to immediately think 'out of the box' from the very beginning of the camp and provided them with the taste of what was to come.

7.0 Camp Evaluation

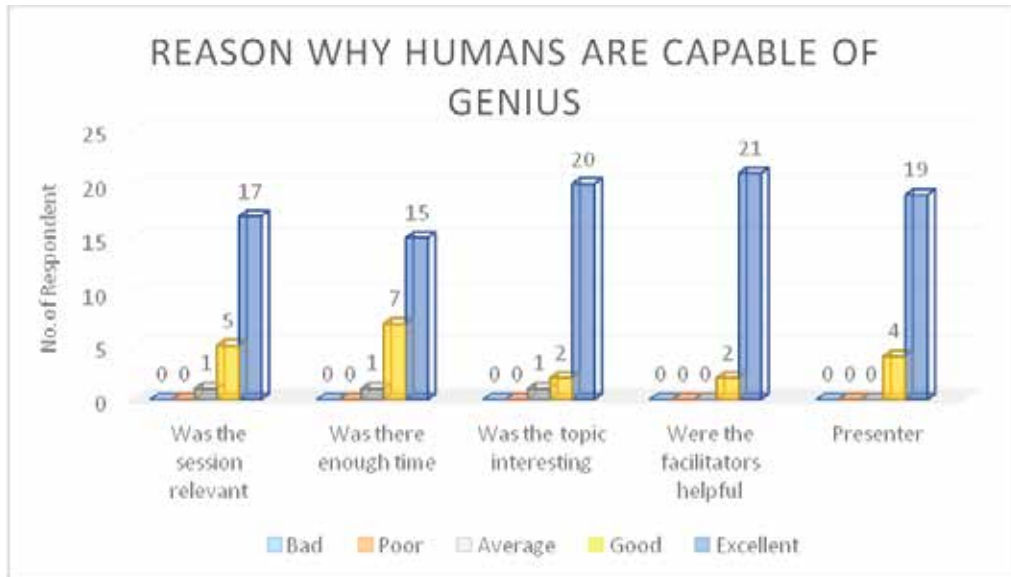


Figure 2 : CCT 2016 Reason Why Humans Are Capable Of Genius

Figure 2 above shows that the participants rated excellent for the relevance of the sessions and time given. The participants said that the topic was interesting, the facilitators and presenters helpful. The presenters conducted activities to highlight the participants' natural ability. This session was mainly conducted to make all participants understand the objectives of participating in the Creative and Critical Camp 2016 and realise their own true potential.

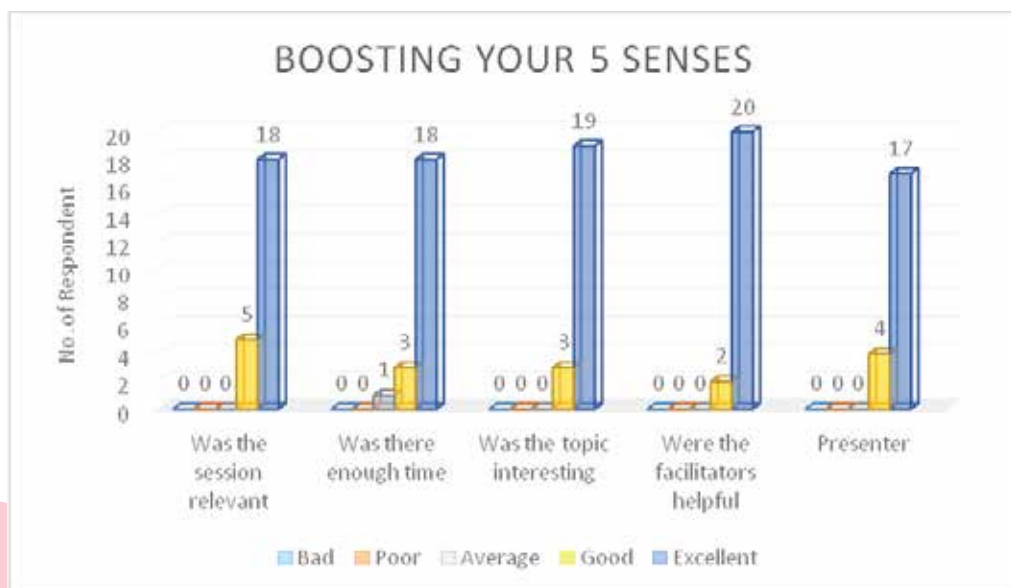


Figure 3 : CCT 2016 Boosting Your 5 Senses

7.0 Camp Evaluation

Figure 3 shows that a majority of the participants rated excellent for the whole session. The input to our brain is coming from all our five senses which are smell, sight, sound, touch and taste. To test the participants' senses for each category, the presenters conducted activities. This would help develop stronger creativity via the senses, and express an appreciation of the world around them through their new awareness of their 5 senses.

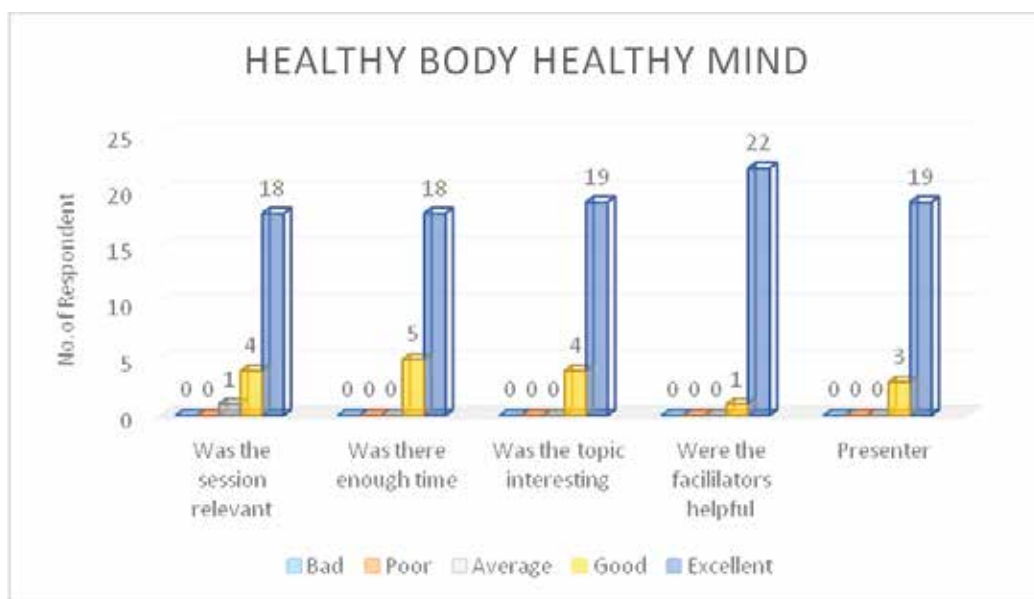


Figure 4 : CCT 2016 Healthy Body Healthy Mind

In figure 4, the most excellent went to the facilitators because they were very helpful to the participants. Each participant was asked to list the healthy foods they eat at home everyday together with the benefits of each. 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 would make eating to fulfil a higher objective, instead of eating just to alleviate hunger.

7.0 Camp Evaluation

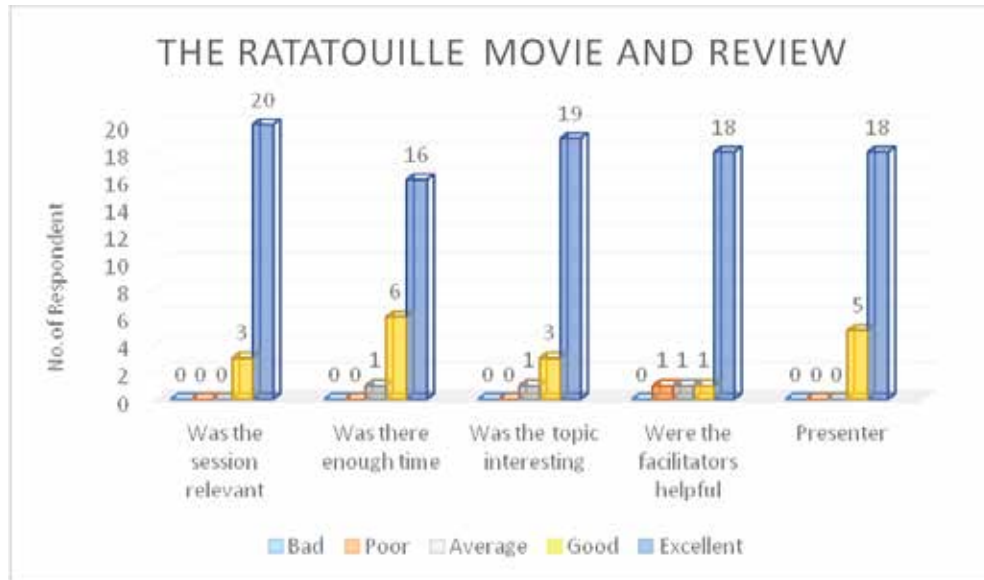


Figure 5 : CCT 2016 The Ratatouille Movie and Review

Figure 5 shows participants rating for this session. The movie was shown as the evening activity after dinner. The reason for showing it on day one was to enable the participants to be conscious of the idea that creativity has no boundaries. The main storyline was how we adapt, and finally accept change. There were many sub-messages throughout the entire film. Each group discussed and reflected on the film, and acted out or presented a scene that had made an impact on them. They all expressed that they had enjoyed watching and thinking about the movie.

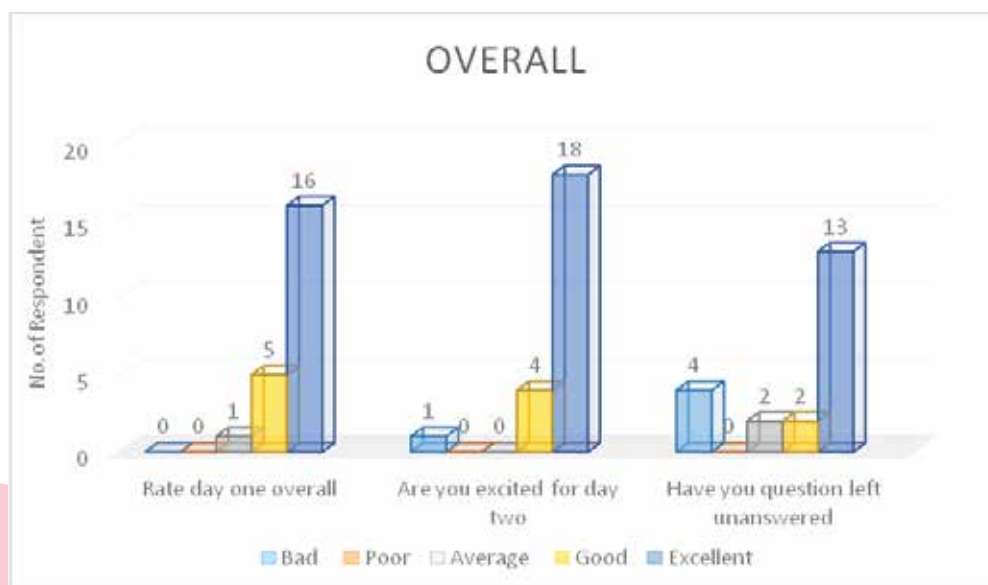


Figure 6 : CCT 2016 Overall

7.0 Camp Evaluation

Figure 6 is about the overall activity that was done for day one. The participants rated excellent for day one. They were very excited and so happy with the activities that were conducted by the facilitators.



Figure 7 : CCT 2016 Morning Exercise

For day two, the facilitators started with morning exercise so that the participants would feel fresh and strong for the day two activities. Based on Figure 7, the participants rated excellent when asked if the activities had been tough and if they had enjoyed the activities. The participants were very delighted with the activities.

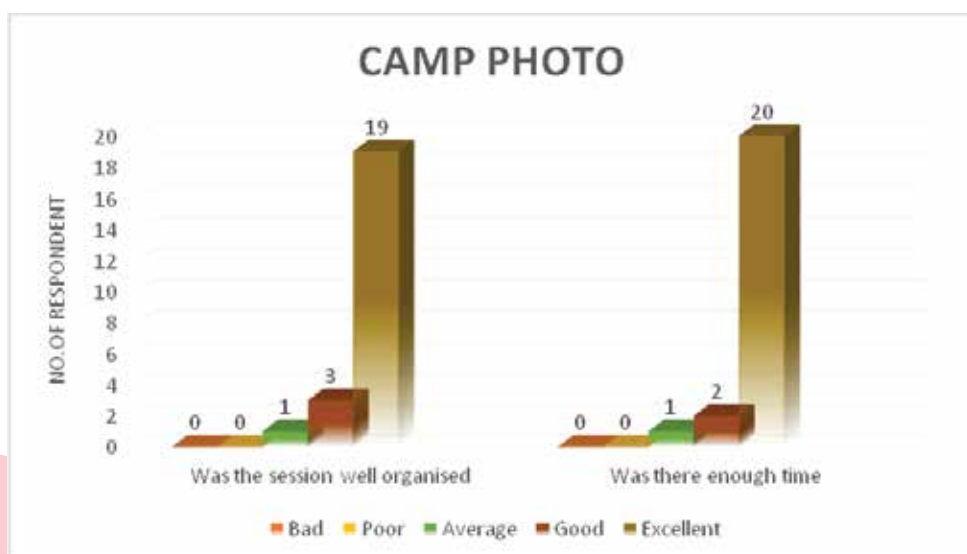


Figure 8 : CCT 2016 Camp Photo

7.0 Camp Evaluation

The participants said that the photo session was excellent which is shown in Figure 8. Some participants even asked for the photos taken, in order to cherish the moments at the camp.



Figure 9 : CCT 2016 Living Earth

Some activities with regards to science subjects were conducted with the participants in order to improve their thinking skills. Figure 9 shows a vast majority of the participants said that the Living Earth session was excellent.

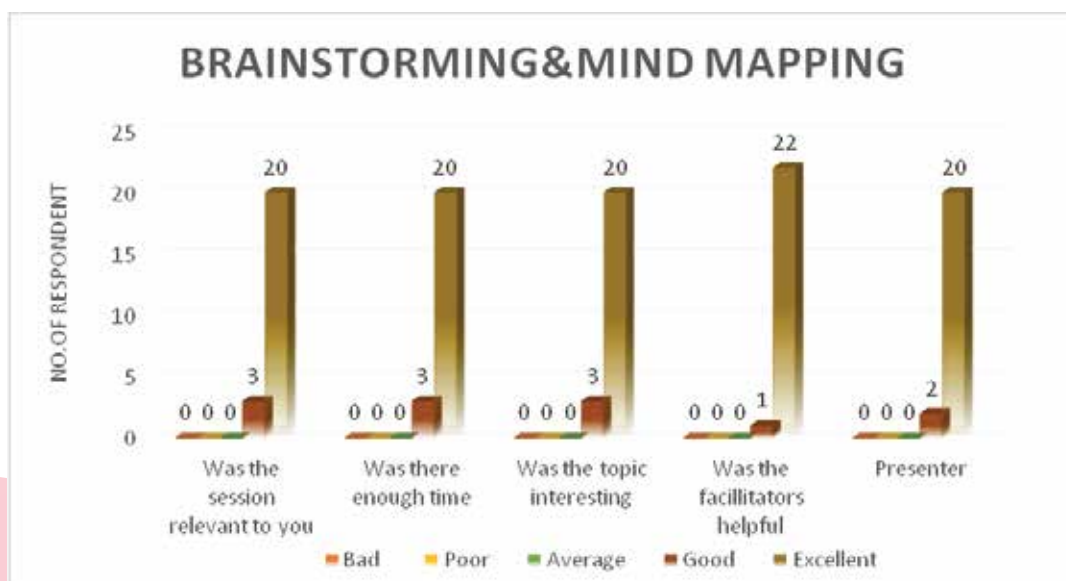


Figure 10 : CCT 2016 Brainstorming and Mind Mapping

7.0 Camp Evaluation

Figure 10 shows rating about the brainstorming and mind mapping session. The participants liked the session. There wasn't any participant who said that the session was bad, poor or average.

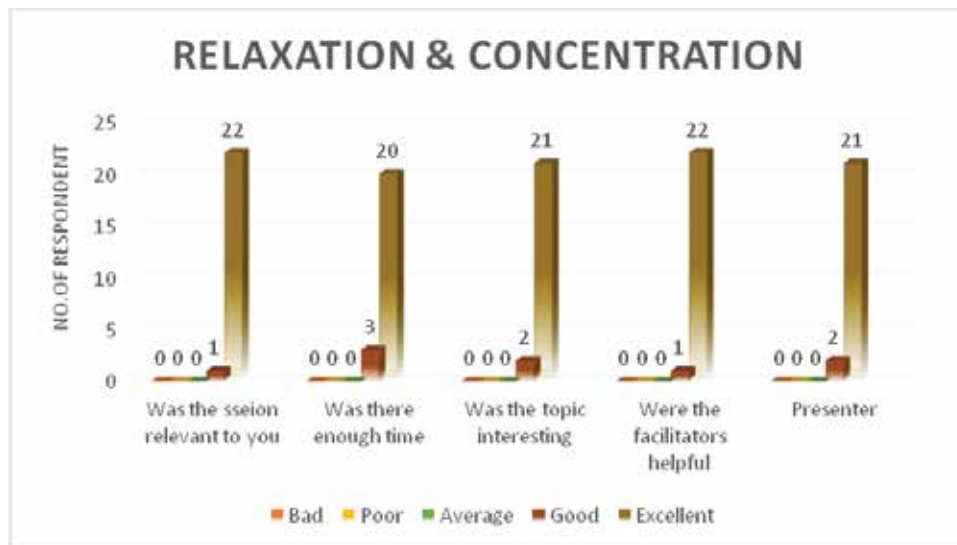


Figure 11 : CCT 2016 Relaxation & Concentration

This session was about relaxation and how to concentrate on one thing. Practising a relaxation technique is a statement from our mind to our body that we feel safe and secure in the world. The body can then switch off the adrenaline, saving us enormous amounts of energy reducing wear and tear of the body. The session helped the participants realize and understand the power of thought and concentration. Concentration is the powerhouse of memory. Based on these conditions, this session was found vital. A few techniques were instilled to guide the participants in concentration. Figure 11 shows that the students loved the session; they rated the session excellent.

7.0 Camp Evaluation

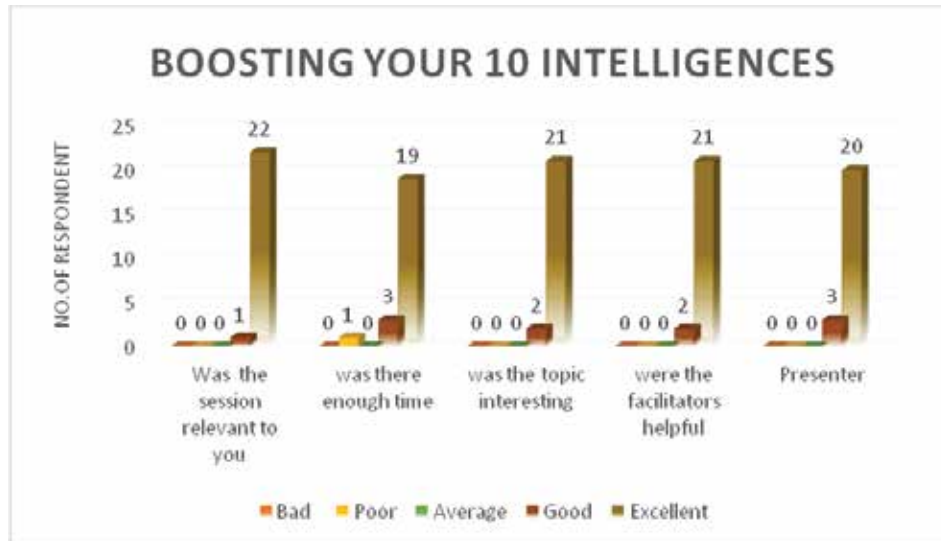


Figure 12 : CCT 2016 Boosting Your 10 Intelligences

As per figure 12, most of the participants rated excellent for all the questions given to them for this session. It is now accepted by many experts that the IQ of human beings is comprised of more than 1 area of intelligence. This session divided them into 10 areas, among which were emotional, linguistic, musical, spiritual, and environment. For each intelligence, the presenter conducted an activity to demonstrate and, at the same time, train the participants to trigger the 10 intelligences within themselves.

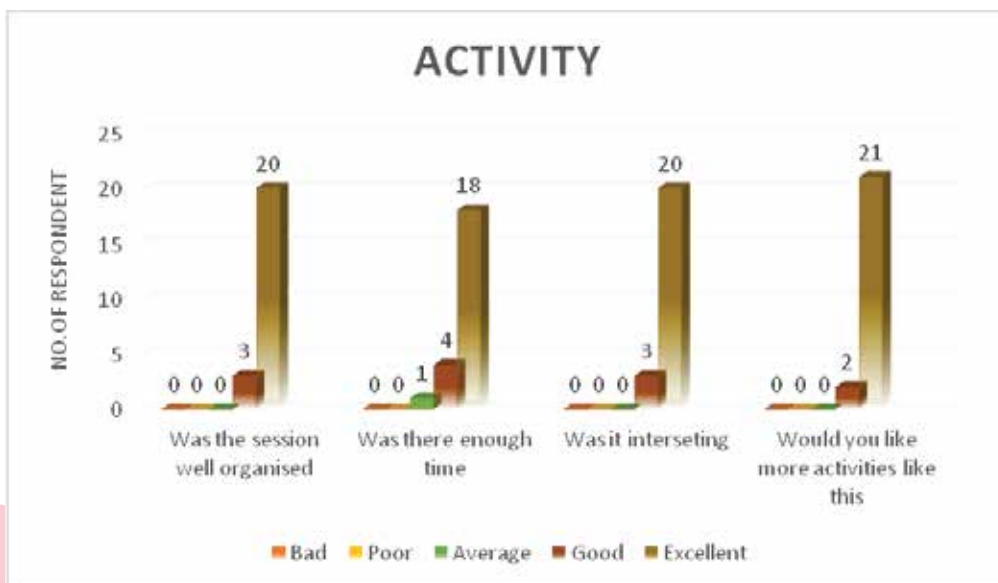


Figure 13 : CCT 2016 Activity

7.0 Camp Evaluation

This figure 13 shows the rating for the activities conducted among the participants. For this session, most participants rated excellent for the questions given to them. There were many different activities conducted by the presenter.

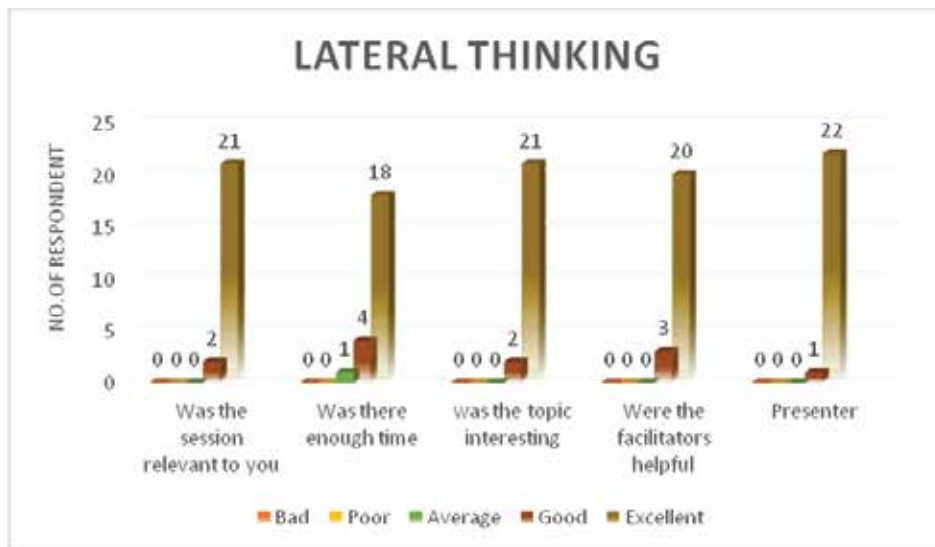


Figure 14 : CCT 2016 Lateral Thinking

From Figure 14, this session was rated excellent by the participants. 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.

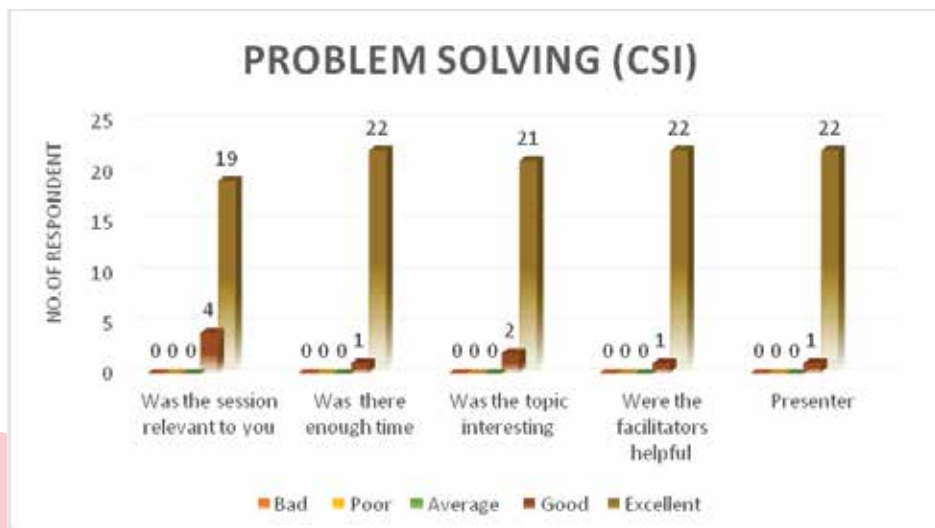


Figure 15 : CCT 2016 Problem Solving (CSI)

7.0 Camp Evaluation

Figure 15 explains the rating for the problem solving (CSI) session. The participants rated excellent to all the questions given by the presenter for this session. During this session, they were exposed to how the comparison between fingerprints and handwriting are made to hunt down suspects in a criminal investigation. Interestingly, all the participants were able to describe their own fingerprint type and handwriting style. Group leaders were required to write all the evidences they had uncovered on a piece of paper and submit them in a sealed envelope to the presenter. The presenter acted as a forensic cross-examiner and questioned the evidences presented to ensure that the participants had understood the process.

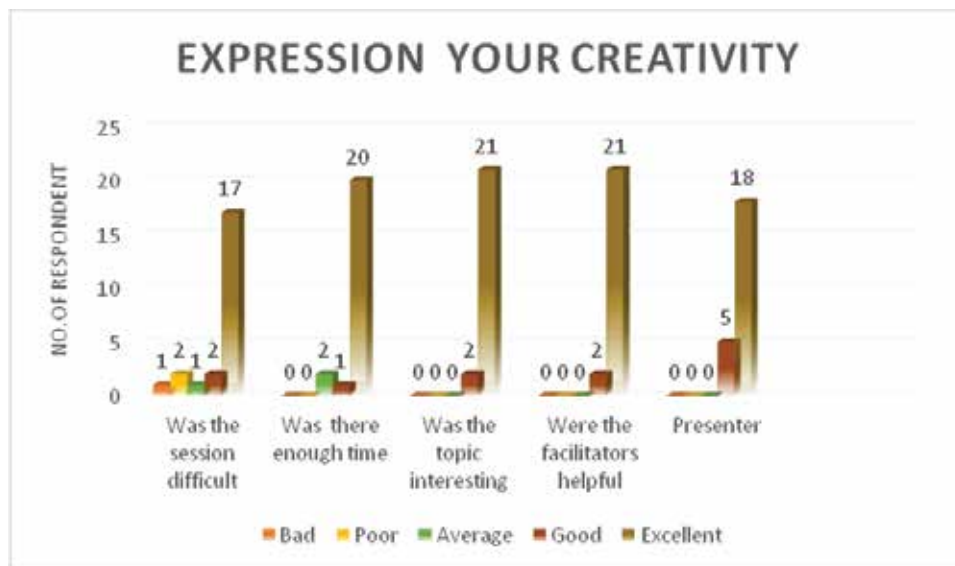


Figure 16 : CCT 2016 Expression Your Creativity

The participants in their groups did 5 different dance moves and 2 directional moves. A card was chosen randomly and the participants were asked to create a short dance to accompany a piece of music with these moves. A video example was shown to give the participants 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 2 others for 2 minutes. This session was conducted with the aim to develop the participants' creative skills through choreography, to boost confidence and to take the participants completely out of their comfort zone. Some participants however found this session to be difficult for them. Figure 16 shows that 3 participants rated the session poor and bad.

7.0 Camp Evaluation

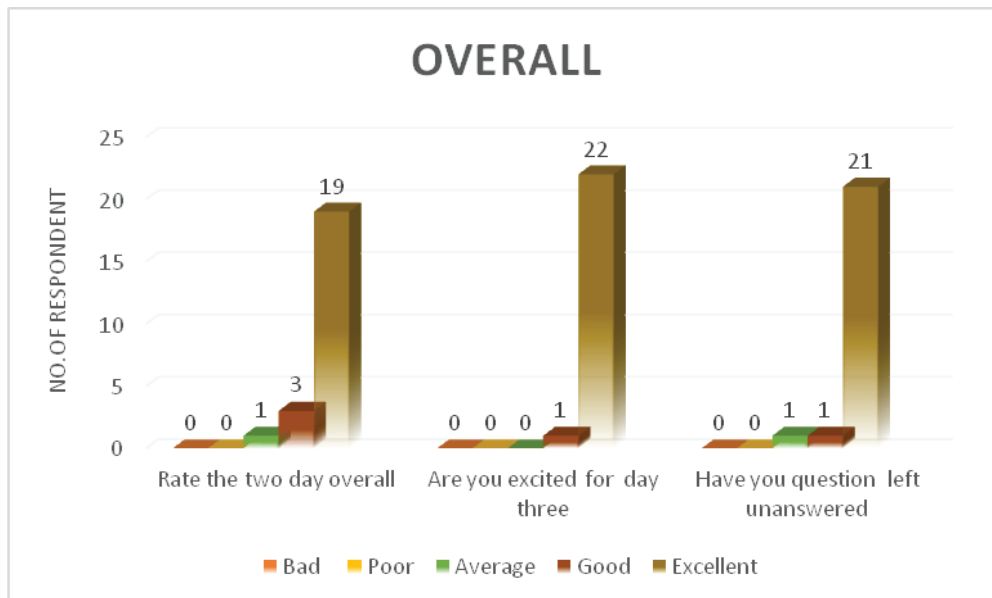


Figure 17 : CCT 2016 Overall

Figure 17 shows that the participants rated the overall activities for day 2 as excellent. They enjoyed the activities conducted by the presenters. Most of the participants were so excited and were looking forward to the day three activities.

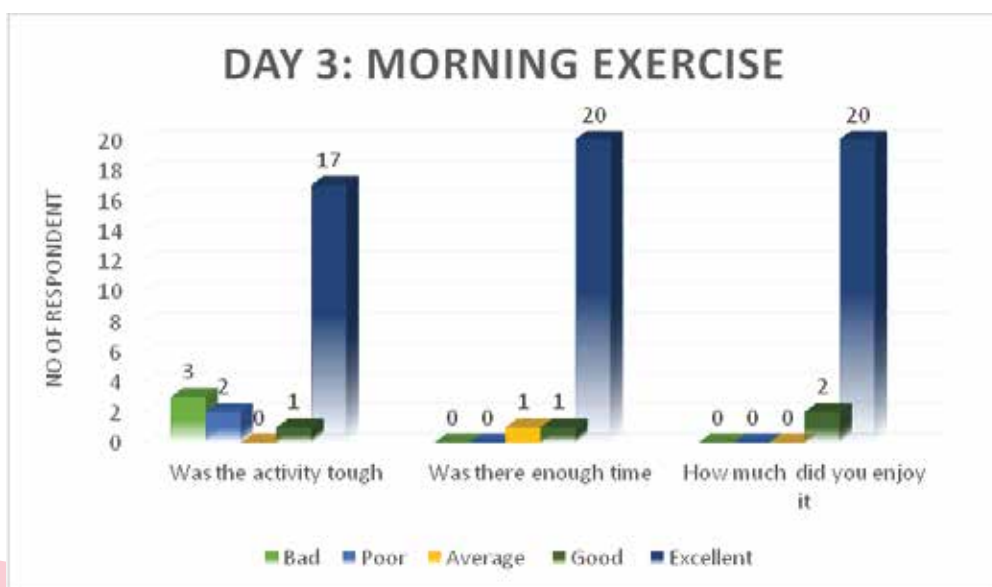


Figure 18 : CCT 2016 Day 3 Morning Exercise

7.0 Camp Evaluation

For day three, the facilitators started with the morning exercise. As per Figure 18, the participants said that the time given was excellent, and they enjoyed the session. However, there were participants who rated bad and poor when asked if the session had been tough.

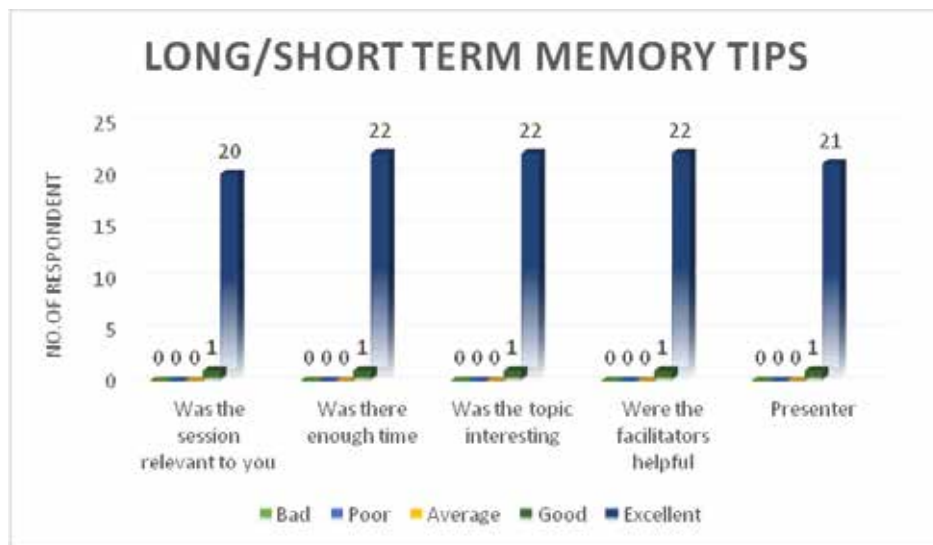


Figure 19 : CCT 2016 Long / Short Term Memory Tips

In this session, the memory of the participants was tested in order to show the importance of short term memory and how it can be used. Short term memory was simply demonstrated with the use of two activities. Firstly 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 so as to describe the image. These activities helped explain the importance of short term memory and how it functions. Based on Figure 19, the participants rated excellent for all the questions for this session.

7.0 Camp Evaluation



Figure 20 : CCT 2016 Overall

As seen in Figure 20, when the participants were asked to rate the overall camp for three days, most of them rated excellent for all the activities done by the facilitators and presenters. The activities conducted were rated as useful to the students.

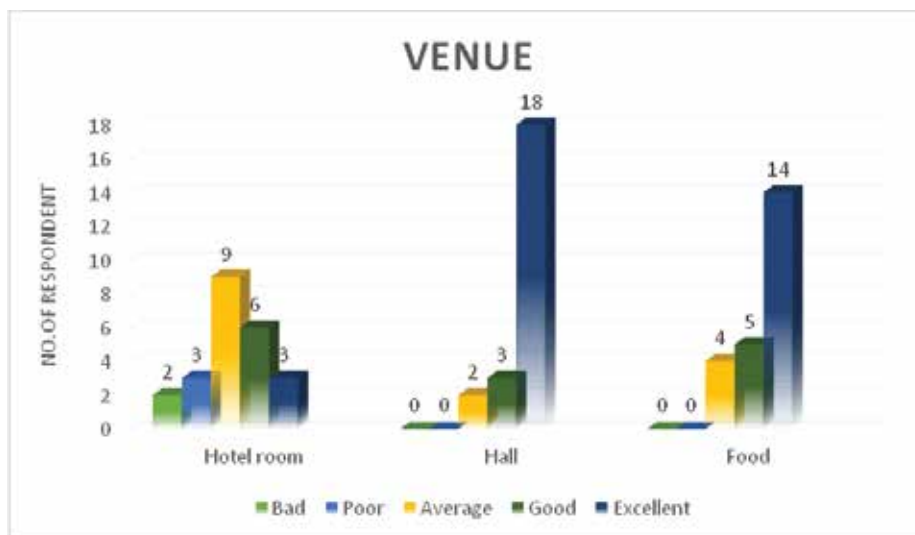


Figure 21 : CCT 2016 Venue

In this session, as per Figure 21 most of the participants said that the hall was excellent. Meanwhile the food provided at the camp was rated average and above by the participants. As for the hotel room, quite a number of students said that it was average. Some participants mentioned that the toilets were dirty. More toilets would also be needed in the future. Overall most of the participants liked the venue.

8.0 Funding

Our main sponsor for the Creative and Critical Thinking Camp 2016 was SEDIC. We are extremely grateful to the funder's generosity which helped ensure the success of the event. An initial seed fund amounting to RM1000 was received from ASTI to help run this camp. We do note that we were planning to run 4 camps such as the above. Due to some circumstances, we were not able to do so. The reasons were explained in our interim report which is included here in Appendix I. The fund donated by our main sponsor is as below:

Sponsor	Amount (RM)
SEDIC	204,400.00

<u>PERTUBUHAN SAINS, TEKNOLOGI DAN INOVASI (CCT)</u> <u>STATEMENT OF INCOME AND EXPENDITURE ACCOUNT</u> <u>FOR THE YEAR ENDED 31ST OCTOBER 2016</u>			
	<table> <tr> <th>NOTES TO ACCOUNT</th><th>2016 RM</th></tr> </table>	NOTES TO ACCOUNT	2016 RM
NOTES TO ACCOUNT	2016 RM		
<u>INCOME</u>	204,400.00		
TOTAL INCOME	204,400.00		
LESS: EXPENDITURE			
<u>BANK CHARGES</u>	23.48		
<u>CAR RENTAL</u>	1,500.00		
<u>DESIGN</u>	730.00		
<u>EVENT VENUE RENTAL</u>	10,481.20		
<u>FOOD & BEVERAGE</u>	1,549.25		
<u>PRIZES</u>	7,233.75		
<u>POSTAGE, COURIER & STAMPING</u>	1,173.83		
<u>PRINTING & STATIONERY</u>	7,761.15		
<u>TRAINER ALLOWANCE</u>	9,406.00		
<u>TRAVELLING & TRANSPORTATION</u>	567.21		
<u>HANDPHONE</u>	90.00		
TOTAL EXPENDITURE	40,515.87		
EXCESS OF INCOME / (EXPENDITURE)	163,884.13		
<u>INCOME AND EXPENDITURE ACCOUNT</u>			
TOTAL INCOME	204,400.00		
TOTAL EXPENDITURE	40,515.87		
SURPLUS / (DEFICIT)	163,884.13		

9.0 CCT Ilham

Creative & Critical Thinking – Ilham

ILHAM was launched by MCEF in 2008, and has trained 914 scholars as of December 2014. This project is fully funded by MCEF.

Project Ilham is meant for bright Tamil school students who have performed exceptionally well (7As) in the Standard 6 UPSR examination. The number of Tamil school students who are doing exceptionally well in the UPSR examination have increased especially in the last 3 years; over 1,000 students out of 16,000 sitting for the UPSR in SJKT scored 7As. The students however lack sufficient exposure and need guidance and coaching at the Secondary Level so that they could maintain their performance at higher levels. Ilham is designed to help the selected high achievers aspire to perform well and be competitive in secondary school and beyond.

9.0 CCT Ilham

The details of the camps are as stated below;

CCT - ILHAM FORM 2 - 1 day				No. of Participants
North	28 May - 2 June 2016	Form 2	AIMST University Jalan Bedong - Semeling, 08100 Bedong, Kedah	59 Students
Central	28 May - 2 June 2016	Form 2	Green View Tarun Enterprise, Negeri Sembilan Lot 5048, Jalan Tarun 1, Kg. Tarun, 71750, Ulu Beranang, Negeri Sembilan	67 Students
South	28 May - 2 June 2016	Form 2	Sri Sakthi Ashram, Johor Lot 133, Jalan Bekoh, 84900 Tangkak, Johor	74 Students
CCT - ILHAM FORM 1 - 1 day				No. of Participants
North	4 - 9 June 2016	Form 1	AIMST University Jalan Bedong - Semeling, 08100 Bedong, Kedah	63 Students
Central	5 - 9 June 2016	Form 1	Kem Bumi Jati, Lot 3310, Batu Jati, Jalan Kebun Seksyen 30, Shah Alam, Selangor	78 Students
South	5 - 9 June 2016	Form 1	Sri Sakthi Ashram, Johor Lot 133, Jalan Bekoh, 84900 Tangkak, Johor	59 Students
CCT - ILHAM FORM 3 - 1 day				No. of Participants
North	26 Nov - 30 Nov 2016	Form 3	AIMST University Jalan Bedong - Semeling, 08100 Bedong, Kedah	86 Students
Perak	27 Nov - 01 Dec 2016	Form 3	Pusat Latihan Amanah Ikthiar, 5 Jalan Kota 34000 Taiping, Perak	47 Students
Central	27 Nov - 01 Dec 2016	Form 3	Kem Bumi Jati, Lot 3310, Batu Jati, Jalan Kebun Seksyen 30, Shah Alam, Selangor	109 students
South	26 Nov - 30 Nov 2016	Form 3	Sri Sakthi Ashram, Johor Lot 133, Jalan Bekoh, 84900 Tangkak, Johor	41 Students
CCT - ILHAM FORM 4 - 1 day				No. of Participants
North	10 Sept - 14 Sept 2016	Form 1	AIMST University Jalan Bedong - Semeling, 08100 Bedong, Kedah	60 Students
Perak	11 Sept - 15 Sept 2016	Form 3	Pusat Latihan Amanah Ikthiar, 5 Jalan Kota 34000 Taiping, Perak	61 Students
Central	11 Sept - 15 Sept 2016	Form 1	Kem Bumi Jati, Lot 3310, Batu Jati, Jalan Kebun Seksyen 30, Shah Alam, Selangor	109 Students
South	10 Sept - 14 Sept 2016	Form 1	Sri Sakthi Ashram, Johor Lot 133, Jalan Bekoh, 84900 Tangkak, Johor	58 Students

9.0 CCT Ilham

The following is a summary of each of the modules used for CCT-Ilham:

FORM 1



9.1 Discover Yourself

Aim : To help the young understand how they can chart a better life for themselves. To help participants in setting goals and achieving them.

Areas of Skills : Goal Setting, Creative Thinking, Critical Thinking

Participants are encouraged to discover themselves in this 'Discover Yourself' session. Participants are taught to set goals. They are shown how to achieving their goals and develop positive habits that lead to success. The module also stresses the importance of having a mentor to help them in their life journey.



9.2 Tinkering

Aim : To give confidence to young people to achieve success with minimal resources. To develop Teamwork and Project Development

Areas of Skills : "Hands-on" creativity. Flexibility in thinking

The module teaches that tinkering is learning through physically activities and exploration. It is best described as learning through playing. The trainers would give some examples of creations by tinkering. This is followed by activities. For this module, group activity is conducted to create or build innovative items from 'everyday items' given to them.



9.3 Boosting Your 5 Senses - SAME AS SECTION 5.4

FORM 2



9.4 Problem-Solving (CSI) - SAME AS SECTION 5.5

9.0 CCT Ilham

The following is a summary of each of the modules used for CCT-Ilham:



9.5 Critical Thinking in Conversation

Aim : To build communication skills. To train young people to be aware of their communication. To develop communication as a tool for knowledge acquisition. To develop communication as a means to develop projects.

Areas of Skills : Critical Thinking. Communication skills - Listening and Responding Accordingly. Internalising Knowledge Gained.

Conversation is the verbal interaction between two or more people, and is a two-way process between a speakers and the listeners. Good tips for conversation are given in this module and various types of conversation are demonstrated. In this module, the participants are encouraged to converse on various given topics.



9.6 Multitasking

Aim : To explore and understand the concept of Multi-Tasking and its difficulties. To encourage participants to focus on tasks (minimise Multi-tasking).

Areas of Skills : Critical Thinking, Focus, Stress Management

Multitasking is doing more than one task simultaneously. Unfortunately this actually makes a person lose focus on each individual tasks. This module helps to create the awareness that multitasking is inefficient, less productive, induces stress and is not recommended. The activity conducted for this module shows that multitasking actually slows us down by making us lose focus on the individual tasks.

FORM 3



9.7 Logical Thinking

Aim : To develop and understand logical thinking

Areas of Skills : Logical Thinking, Methodical Thinking. Reasons for Rules and Regulation.

This module introduces logical thinking to the participants. Logical thinking is orderly thinking and requires concentration. It's methodical and very precise. In this session, participants are given activities that allows them develop their logical thinking. Various types of logical thinking were explored.

9.0 CCT Ilham

The following is a summary of each of the modules used for CCT-Ilham:



9.8 Discover Yourself – SAME AS SECTION 9.1



9.9 Multitasking – SAME AS SECTION 9.6

FORM 4



9.10 Brain Exercises 1 & 2

Aim : To introduce young individuals to brain science. To discover the amazing organ's capabilities and show how it is organised. To help young people discover and 'exercise' different part of the brain.

Areas of Skills : Brain Development, Perspective.

The brain can be explained using the metaphor of the muscle. What we do not use, we lose. In this session, we use simple suggestions and activities based on calculations to demonstrate how to develop amazing brain abilities. A number of activities that stimulate brain activities are done to demonstrate this. Participants are taught to stimulate different parts of their brain by doing something new and to look at things from different perspectives.



9.11 Thinking Skills

Aim : To introduce young people to different thinking skills. To help young people apply these thinking skills.

Areas of Skills : Enquiry, Creativity, Evaluation, Reasoning, Information Processing

Various types of thinking skills taught in this module, including enquiry, creativity,



10.0 Conclusion

CCT Camps and workshop enable to empower our young students to think on their own. This confidence is important for them to be future leaders in a fast-changing world. We also conducted a series of CCT Workshops for MCEF.