CHILDREN’S CREATIVITY AND CO-CREATION CAMP/WORKSHOP

7th & 8th November, 2016

Organized by Honeybee Network
WORKSHOP OF INNOVATIVE AND CREATIVE CHILDREN

During Ignite awards a workshop of innovative and creative children was held wherein selected privileged and underprivileged children sought solutions to societal problems in slums around Delhi, through their creative ideas. The workshop was held at the exhibition venue, thus exposing these children to innovations by Ignite awardees. Children were given an exposure to different solutions for real-life problems, tried by innovators, and were encouraged to imbibe empathetic values in developing innovative ideas to solve basic problems faced by people living in slums. The overall objective of the programme was to develop an operational framework for empowering children to not only articulate their problems but to also find solutions, both individually and collectively.

The workshop aimed at tapping the dormant creative potential of children who probably did not have the courage to articulate their ideas. Held over two and a half days, the first day involved brainstorming regarding the workshop like what are they expected to do and how to do it. On the second day of the workshop, the children went for the field visit and on Third day children worked in groups, sketching various problems identified and their proposed solutions to them. These children came up with several useful solutions to various problems.

The inverted model of innovation implies that children ideate/innovate, and fabricators design and companies/agencies diffuse commercially or socially. Involvement of children in solving their challenges will help us understand micro and macro strategies which can mobilise the creative potential of children around the world. This may help in overcoming persistent social inertia in developing countries. The children addressed the following issues:

a) The challenges they face;

b) Challenges that the society around them faces; and

c) Other problems that inhibit the unfolding of their potential.

Pedagogy:

a) Purpose: Discussion about the purpose of the workshop

b) Process: Brainstorming about some of the solutions in one domain and how these can trigger new solutions in other domains

c) Perception: Once their curiosity was triggered, their visit to the exhibition was organised to enrich their repertoire and also reinforce their confidence

d) Pursuit of innovation: After briefing about the fieldwork, children were divided into two groups comprising privileged and underprivileged children

e) Practice: Each group visited one slum area of Delhi — Turkman gate market place and Qutub Minar— to interact with the local communities, children and others, and to observe and study their day-to-day problems.

f) Presentation of solutions: Each group sketched the problems they saw and presented ideas to solve them.
The children came up with multiple solutions to various problems.

**UTILISATION OF BAMBOO WASTE IN CUTTING BAMBOO**

**By -**

Adyasha Dash, D.M. School. R.I.E., BBSR, XI class, ODISHA.

Manodrya S. Vaidya, X Class, Sandipani School, Hazaripahad, Nagpur (Maharashtra)

Indu Manikpuri, VII Class, Aastha Vidhya Mandir, Dantewada, (C.G.)

Nirzar Dave, VI Class, B.K. Bhansali Vidhya Mandir, Gujarat

Munni Kumari. R.M. Vidhyalaya, Fulwari sarif Patana.

Arijita N Patra, VII Class, Angal High School, ODISHA

**Problem:** A lot of bamboo gets wasted while cutting

**Solution:** Waste can be burnt and that energy can be used to rotate fan/turbine. Then the energy generated through turbine can be converted to electrical energy and this energy can be used for bamboo cutting machine.
CUTTER PROTECTIVE GLOVES

By:
Rathod Ranjitsinh Bhagwansinh
Manavadiya Suresh Rameshbhai
Suraj Tiraki
Patel Gitansh Rakeshkumar

Problems: Injury while cutting bamboo

Solution: A hand glove to prevent bamboo cutter from getting injured. Also add screw so that a person can move his fingers easily. In summer season, gloves with holes can be used so that there is air circulation. Magnet will be fitted in both the cutter and glove so that if both things come too close it will automatically repel
ROTATING CHAIR FOR WORKERS

By: 
Gulshan Kumar
Lohar Jayanti Das
Sagar Kumar
Resham Sodel
Sarang Mashale

**Problem:** When making pot activity labor move more time and painful activity

**Solution:** When the labor working there are fit the moving chair, so labor work is not hard and painful.
SOLAR ELECTRIC CUTTER

Group: Qutub Minar

Idea By: Dhanurjaya Dehury, Parmar Mahendrabhai, Bilash Dutta, Rupa Sharma, Govind Sharma, Sumeet Muneer, Saddyak,

Problem: It consumes a lot of time to cut the bamboos.

Solution: A solar operated machine for cutting bamboo which can cut more than 5 bamboo at a time. A vaccum cleaner should also be fitted to it so that it sucks all the dust produced while cutting.
MODIFIED TROLLEY

By Group : Turakman Gate

Sayan Sain, Priyanka Panda, Subhra Susmita, Zufa Jabal, Azra Rizvi, Akanksha, Charmi B. Pandya, Mohammad Hadi, M.Devi, Parth, Gayatri Shereen, Muskaar, Lakshman, Sibudhi

Problems Faced: Solutions:
1. Heavy Trolley Use of lighter weight
2. Rain Havoc Use of automatic rain cover
3. Tyres Use of bearing

Foredawn less tyres

4. Manual Automated by lever mechanism
5. Disoriented Control over the trolley along with break and Staring (Rod).
6. Transfer/Shifting Rollers are attached to the base so that shifting to the back is easy.
7. Less Accomodation Detachable compartments could be added for Accommodation.
8. No Control Fully controlled
LIGHT SENSITIVE SENSOR

Idea By: Dev Desai, Pranav S., & Sayan Chaudhry

Problem: Drivers are unable to drive at night due to high beam of upcoming vehicles.

Solution: The oncoming car senses the variation in light through sensors on side rear-view mirror. The high beam automatically becomes low so, the driver can drive comfortably.
SMART STAPLER FOR TAILORS

Problem: Tailors have difficulty putting hooks and buttons on cloths.

Solution: A stapler like design & buttons with pin so that each button can be stapled to the shirt/other clothing.
HEAT RESISTANT SHIELD

Problem: Heat burns in welder due to improper shielding.

Solution: Resistant shield on the welding machine a few inches away from the welding point.
LONG DUSTER

Idea by - Ameena, Deepali, and Shabnam

**Problem:** Breathing problem because of chalk dust while using duster to clean board

**Solution:** Use of a long duster which can slide along the edge of the board

SMART AIR BLOWER

Idea by - Affan Siddiqui

**Problem:** Breathing problem because of exerting air in phookni to weld the ring and its upper part

**Solution:** A air blowing gun with the addition of a pipe to use it as a phookni.

**Problem:** Getting hurt in hand while using hammer

**Solution:** Hammer like the drums beater (which can be operated by foot)

**Problem:** The wheel barrow puller gets tired very fast because of pulling heavy weight and they get breathing problems.

**Solution:** We can add 2 wheels more and we can add supporters on the ends of wheel barrow which will also work as breaks while it gets stopped.
Idea by – Nandini Chauhan

Problem: Wastage of water while using pipe

Solution: There should be a tap on the mouth of the water pipe so that we can reduce the wastage of water while moving the pipe from bucket to another for filling it.
Idea By: Zufa Iqbal

Problem: Pavements covered with permanent roof and permanent shelves

Solution: Portable shelves should be attached to the shops which will be safe and will give space also.

Problem: It was observed that wires(electrical) were hanging from building and sometimes it happens that these hanging wires get entangled with moving trucks and get dragged resulting in loss of electricity.

Solution: We can build pipe system for convenient transfer of electricity so that no loss is observed in congested zone.
**Problem:** Design Mechanisation

**Solution:** Styles and pattern can be mechanized and variety is created no mechanical intervention observed with this regards.
Idea By: Parth Bansal , Std: IX – B , School: Apeejay School, Noida

Idea : Electro – Cart

Solution : This cart will generate energy when its moving because of the servo which will spin because of gears.the energy is stored in a battery for further use.. In this way energy will not get wasted and can be used to run many appliances.

Idea By: Madhur Gupta

Problem: Difficulty in using gloves while sweeping because of improper grip and height

Solution: Broom stick with adjustable height and handle for holding it. Proper handle will provide grip to hold the stick and will also allow people to wear gloves while sweeping which is helpful for maintaining the hygiene.
dea By: Priyanka Panda, Std: XI, School: DAVCSPUR BMSR, ODISHA

COLUMNAR ARRANGEMENT OF JEWELLERY BEADS ON THE BASIS OF SIZE

**Problem**: Time consuming task of selecting/picking beads for necklace from a bunch of beads of different sizes.

**Solution**: Making columns having different compartments so that the beads could be arranged in different compartments on the basis of sizes.

TEMPORARY CONVEYOR BELT FOR TRANSPORTING THINGS ON ROOFS

**Problem**: Things transported on roof by using hands only

**Solution**: Movable conveyor belt that could be set up between two building and things can be transported without any efforts.
Idea By: Mohammed Haadi Rizvi, Std: VI, Agakhan Foundation St. John’s School

ELASTIC BELT FORCART

Problem: Pain on shoulders while pulling cart

Solution: Use of elastic belt

Idea By: Bilash Dutta, Std: XII, Saint Capitanio School

Multi height base for facilitating cement item makers

Problem: Back ache complain from cement item manufacturer due continuous leaning.

Solution: Using broken and waste cement items to make a base of certain height so that the workers don’t have to lean too much.
SMART RAG PICKER- AUTOMATIC WORKER

**Problem:** Different health problems suffered by rag pickers

**Solution:** We can make one standard and smart rag picker in which the bulldogger nails will come out at the end which will be extensible. So they will pick up the rags automatically when one switches on or control the operator or machine. There will be one roller which will help to move the nails and the wastes are dumped side-wise in the buckets as show. There will be one magnet, which will attract the metals, so they can safely !!!

![Diagram of SMART RAG PICKER](image)

**Idea By:** Subhra Suchismita Patel, Std: Class XI, KIIT International School ODISHA

M.Devi Std: Class IX, Andhra Pradesh

**Idea 1.** Sensor alert if something is being thrown out and alarm won’t stop until the person pick it up.

**Idea 2.** Smart table with compartments inside which will be operated by switch by shopkeeper to bring out the things he wants to show.
Idea By: Sayan Sain, Class IX, Pailau world School

COST EFFECTIVE DUST ABSORBING BROOM

**Problem:** Dust Blown Away Gets Accumulated Some Where Else

**Solution:** Cost effective broom which would have a function of observing dust when turned on and would release the dust where turned off, allowing the person to dispose the dust properly.
The Device to Remind to Wear Seat Belt

**Problem:** People forget to wear seat belt

**Solution:** A speaker system connected by sensor which will remind the driver to wear seat belt by saying “you are in danger, please wear your seat belt”. It will continue until the driver wears it.
Idea By: Adhyaha Dash, Std: Class XI, School: D.M. School, RTE,BESR,ODISHA

Rotatory Plat With Adjustable Stand for Cement Work

**Problem:** The poor cement workers have to bend rotate around to give the shape.

**Solution:** There should be a automatic rotatary plat with adjustable stand so that the worker have to bend or rotate to give shape to the structure.

Idea By: Roshan Sodi

**Idea:** Battery operated wood cutter (Without Electricity)

A machine running without electricity as the cutter is connected to battery and one doesn’t have to worry about power cuts.

**Idea:** Electric Nail Fixing machine for wood work

The modification in machine is proposed so that a green button is given in the machine to enable easy movement of nail to the desired place on wooden platform and fix it using red button.
Idea By: Muskan Jawalkar Class-7

Idea: Foot operated selling bi-cycle cart for street vendors with lights and pedals
Idea By: Mahek 4th B, SDMC Coed. Pratibha School, Nizamuddin West

Idea: Convertible machine (can be a bus or car or robot as required) device (without electricity) for making pearl necklaces to avoid eyesight problems for workers.
Multipurpose Chair with Travelling Trolley

**Problem**: Back pain due frequent bending, lifting heavy objects, transporting heavy objects from one place to other place.

**Solution**: A multipurpose chair with travelling trolley is proposed as a solution in which a adjustable iron platform is fixed with wheel trolley with two rods and adjustable gears to enable easy movement of platform for loading and unloading. Also, an adjustable seat is provided for person to operate without bending and moving physically.
Idea By: Charmi B Pandya, Std-6, Vidya Mandir, Palanpur, Gujarat

SENSOR BASED SWITCH BOARD REGULATOR FOR LIGHT BULB

Idea: Attaching a sensor based regulator with light board switches which can automatically increase or decrease the light intensity based on requirement.
Idea By: Sharma Roopa Kailashbhai, 10th, Sharma Govind Kailashbhai, 12th

Adjustable and Electricity operated working platform

Idea: A switch is provided to adjust the height of the platform by moving moving up and down. A bearing enabled revolving belt system is proposed for comfort the horizontal movement. It's made of wooden material and shock proof.
Idea By: Manisha, 10th

Problem: Frequent movement and extensive physical work while making pot

Solution: Movable chair for workers to avoid back pain and unnecessary physical work.
Idea By: Parmar Mahendar Kumar B, 8th, Shri Sarva Vibhag Prathmik Shala

Solar operated Bamboo Cutter and sorter

Idea: Adjustable multiple feeder for different sized bamboos with movable steel plates; the sorter and grader is also provided to separated good quality and waste bamboo materials. It is solar operated thus can be used in rural areas.
Idea By: Azra Rizvi 8th B, AGA KHAN FOUNDATION

Circular Storage Box

Problem: While making jewellery using different gems and stones, workers find it difficult to pick these materials from one single box.

Solution: A system where two movable circular storage container with different compartments are provided on jeweler’s table, one is for storage like pearls, beats, decorative material; another is like tool storage section. It is adjustable and movable with help of bearing mechanism, will be convenient.
Idea By: Subhra Suchismita Patel 11th, KIIT International School, Odisha, Himanshu Rateria, 11th, KIIT International School, Odisha

Multipurpose Cart

Problem:

Solution: Hollow compartments are provided in cart for storage. An half extended Umbrella storage and opening system is provided in side of the cart which has foldable solar panels and fans inside the umbrella. A battery is also provided for storage of solar energy. Fully extended umbrella attached to cart which provide a covered sleeping space for the user. No. of tires are increased and are frictionless to reduce energy usage. The users will wear Magnet enabled gloves and cart holder will have electro magnet.
Idea by: Sharma Roopa Kailashbhai, 10th & Sharma Govind Kailashbhai, 12th

**Problem:** Less space for more furniture and materials  
**Solution:** Foldable bed and furniture, it will be adjustable and space can be used for other purposes.
Idea By: Srilahar Jyoti Das, 12th, Transition Academy Kulhati (Assam)

**Problem:** Big Tempo- Small Tank; One Tap- More water wastage; time and energy consumption is very high

**Solution:** Same Tempo- Big Tank; more tabs on both side of tank - less waste; more people can get benefitted; time and energy saving.
Idea By: Sheereen Sheikh 7th

**Problem:**

**Idea:** Cut the bonnets and use them for planting trees and plants & can also cut the plastic bottles and use them for plantation. Both can be used as decoration materials, also waste utilization and save environment. It is eco friendly and human friendly.
Idea By: Md. Parvez 9th, Rainbow home

Problem: Smoke from Auto or car is very harmful for humankind and nature, creates air pollution.

Solution: Storage tank in the vehicles to store smoke and CO2 produced which can be later used for other purposes or recycling or purification and utilization system in vehicles to use this gas for heating and cooling fuel for air conditioning. It is an eco-friendly method and will save fuel and electricity.
Idea By: Shabnam Jahangir 10th F, Rainbow Home

**Problem:** When a person used puller for carrying things, it is highly laborious and cause breakage and wastage.

**Solution:** Provide Wooden borders of certain heights; provide 2 small and 2 big tires for easy pulling.
Idea By: Summi Muneer, 9th, Khushi Ranibow home

**Problem:** Smoke from chimney and industries create ash, dust and black fog causing air pollution

**Solution:** Filter sheet for chimneys fitted on top of the chimney facilitate filtration and release only air in the environment, and dust or ash is collected in compartment for disposal or other purposes. It will reduce the carbon emission and pollution caused by chimney smoke and foreign materials.
Idea By: Gulshan Kumar 12\textsuperscript{th}, HCC Padrauna

AUTO-OPERATED REVOLVING CHAIR

\textbf{Problem:} Potmaker has to bend and move frequently and extensively which cause back pain

\textbf{Solution:} Fixed working platform, but chair is movable. It is proposed to put a circular track for chair which is auto operated and can be lift up-down with help of spring mechanism and move on track as per requirement. Convenient for pot-makers.