Green KOMLOY for Chiang Mai City

PBL-Tele-collaboration

Varee Chiang Mai School and Monfort College
Chiang Mai Thailand
My Chiang Mai
Phenomenon
Yee Peng Festivals
Problem significance

- Releasing KOMLOY (sky lanterns) has been part of the local traditions
- People released high numbers of “KOMLOY” each year
- Changes in the purpose of launching “KOMLOY”
- Changes in the manufacturing process
- Various sizes and using a variety of materials
- Effects on community and environment
Problem identification

• Litter from launching “KOMLOY” (Sky Lantern)
• Wires in “KOMLOY” causing short circuit
• Long burning fuel causing fire hazards
• “KOMLOY” ascends too high and causes impacts to air traffic
Learning Objectives

1. Enhance the students’ knowledge about KOMLOY,

2. re-design KOMLOY that would minimize negative effects on the environment within Chiang Mai city
Tools

- Application form for participants
- Surveys on general behavior of launching “KOMLOY”
- Digital Data Storage Devices
- ICT tools such as google apps, web authoring tool, graphic software, facebook
- Quizzes to test the understandings on “KOMLOY” and its effects on the community
- Interview questions for experts/local teachers or local scholars
Learning Process

My KOMLOY
- Team building, Problem Identify
- Online register, facebook, web

Research
- Information collecting, Real data
- search engine, share VDO

Apprenticeship
- Learning by doing, local teacher
- How to make KOMLOY (VDO)

New creation
- Brainstorm, Design, experiment
- share the result on facebook

Public presentation
- at my school, my community
- publish on www, sharing, discussion
Step 1. My KOMLOY

Team building
Registed member to Green KOMLOY website

Vcs student
MC student
Warm Up Game

Team building among student from two school
Warm Up Game
Prerequisite skills

- Brief workshops on the use of google docs and moodle
Website: http://GreenKOMLOY.varee.ac.th
Face book : Green KOMLOY
Problem challenging
Problem identifying
Problem identifying on facebook

“KOMLOY ascends too high and causes impacts to air traffic”
Step 2. Research

Information inquiring

• Research on the history, manufacturing process, theoretical strategies behind “KOMLOY”, materials, and fuel cells of “KOMLOY”
• Surveys on general behavior of launching “KOMLOY”
• Summarize research findings from 2 schools and upload them onto website and facebook
Surveys on general behavior of launching “KOMLOY”
Collecting of data

“Let’s launch KOMLOY just funny”
Study the properties and components of a standard “KOMLOY”
Shared video on www: Life Cycle of KOMLOY
Step 3. Apprenticeship
Learning from Local teacher
Interview local teacher
Step 4. New creation

• Brainstorming, Discussions

Try to use Fire-resistant paper.
Brain storming, Discussions
Hands-on
Design Experiment

• design experiment : facebook

“experiment 2(1): fuel and time”
Experiment

GREEN KOMLOY for Chiang Mai City

Share experiment process on www
Experiment: shared testing result

Burn Burn BOOM!
Experiment: Fuel cell
Experiment: fuel cell weight
Experiment : Launching
Discussion and Conclusion

1. “KOMLOY” dimension: width: 50 cm height: 70 cm
2. Fuel cell made out of paraffin tissue with the diameter of 10 cm, weigh 20 g and its maximum burn time is 4 minutes.
3. The structure is made of bamboos
4. “KOMLOY” exterior is made of Kite paper
5. Fuel cells are attached with #24 wires with total length less than 30 cm. Fire resistant string is used for extension.
Green KOMLOY package
Step 5. Public presenting

Poster

On facebook
Public Presenting: At My School
Community Involvement: Walking Street
Innovative Practices in Teaching and Learning: A Regional Seminar
Outcome

• Knowledge about “KOMLOY”, production techniques and marketing plan
• Development of problem-solving skills, analyzing skills, critical thinking skills
• Scientific method of problem solving
• Teamwork skills
• Make use of technological tools
• Able to select and use technology appropriately and with creativity.
Impacts

Students

- Local wisdom learning
- Social & environment responsibility

Community

- Family Learning
- Inheritance of cultural

Impact

- Inheritance of cultural
- Inter-school instructional
- Integrated Curriculum

teachers
THANK YOU!

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