Justin Kwik Summer Tech Service Program
Summer 2014

Who: 20 students 12 – 14 years old (grades 7, 8, 9) recruited from Ora et Labora Panglima Polim, Pamulang and BSD, from lower economic status households who have a high level of creativity, aspiration and enthusiasm. A high level of commitment to attend all sessions is required. Also to include 2 high-school students as team assistants. Ora et Labora management will provide the venue and transport for the children to go to and from the venue.

When: 10 – 23 July 2014

Venue: Ora et Labora Panglima Polim. Air-conditioned room and internet will be provided by Ora et Labora at this venue.

Hours: Monday – Friday, 8.30 – 11.30 am. Followed by lunch (provided). And then afternoon outdoor activities as part of team building. Details TBA. Dismissal around 1.30 pm.

Objective: Technology is a critical enabler for students to develop solutions to real world problems, especially when project-based learning and 21st century skills are utilized in the classroom. Students need to learn to use the power of information technology and the internet to develop 21st century skills to prepare them for today's knowledge-based, technology-driven, globalized environment. Research has shown that these students will be more likely to increase future work quality.

After completion of the project, these 20 students will be involved in after-school activities at their respective schools to further the relevant knowledge, learning and experiences to other students.

10 iMac desktop computers are purchased through corporate sponsorships. Two students will have access to 1 desktop computer.

Assessment of teaching and learning will be conducted at the end of every class through the use of anonymous web-based SurveyMonkey. Open and honest assessments will be encouraged.

Lesson Plans:
Subject to change (will be adjusted depending on students' knowledge and pace).

Skills addressed: Real world problem-solving relating to issues in the local community, real life applications, collaboration, knowledge construction, skilled communication, critical-thinking, creativity

Thursday 10 July:
- Introductions, get to know each other, understand everyone's computer literacy level
- Agree on objectives and rules
- Create Gmail accounts
- Learn free Google Apps (Google Docs)
- Share document on Google Drive
- Work in pairs to use Google Docs in developing a 1-page paper on "About us: Who we are, what are we passionate about, and why" (some research has to be done on the subject)
- Knowledge: How to use available free resources on the internet
- Skills:
    - Collaboration
    - Knowledge construction
    - Skilled communication

Friday 11 July:
- Learn how to share document on Google Drive and provide input on each other's work
- Learn about proper research and when and how to do citation to avoid plagiarism
- Learn free Google Apps (Google Slides) and how to include links to youtube (for example) and internet citation
- Work in pairs and use the Google Docs the students created the day before on Thursday 10 July to apply knowledge of Google Slides in presenting the information visually in a 3-page presentation format
- Knowledge: How to use available free resources on the internet
- Skills:
    - Collaboration
    - Knowledge construction
    - Skilled communication

Saturday 12 and Sunday 13 July: Work on finalizing the presentation

Monday 14 July:
- Presentation of the project developed on Friday 11 July and during the weekend
    - Learn some pointers about making effective presentation slides
    - Practice giving presentation in a confident and clear manner
    - Presentation to include 1 citation of a website
- Peer feedback
- Develop typing skills by using free web tools (*typingweb.com*)
- Knowledge:
    - How to use available free resources on the internet
    - Typing
- Skills:
    - Real life applications
    - Collaboration
    - Knowledge construction
    - Skilled communication
    - Creativity

Tuesday 15 July:
- Continue developing typing skills by using free web tools
- Knowledge:
  - Typing
- Skills:
  - Real life applications
  - Collaboration

Wednesday 16 July:
- Introduction to computer game creation using free resources on the Web (*sploder.com*)
- Create simple computer games
- Knowledge:
  - Programming
- Skills:
  - Real life applications
  - Collaboration
  - Knowledge construction
  - Critical-thinking
  - Creativity

Thursday 17 July:
- Create more advanced computer games in *sploder.com* or other free tools available on the Web (show Flappy Bird and Minecraft-like games created using *scratch.mit.edu*)
- Show how to record / capture video on your computer screen
- Knowledge:
  - Programming
- Skills:
  - Real life applications
  - Collaboration
  - Knowledge construction
  - Critical-thinking
  - Creativity

Friday 18 July: (Trip to market at blok M for awareness on and observation of assigned pollution topics was cancelled due to closure of school next week.)
- Study the 4 different types of pollution, complete worksheet
- Research solutions on ways to prevent, reduce or deal with pollution
- Learn free website / free blogging (*blogger.com*)
- Use your creativity and research to create a campaign for "Clean Jakarta"
- Finish work off-site on Monday 21 July and Tuesday 22 July
- Submit satisfactory work by Wednesday 23 July in order to get certificate of completion from JKST
- Knowledge:
  - How to use available free resources on the internet
  - How to research, analyze information and ideas
- Skills:
  - Real world problem-solving relating to issues in the local community
  - Real life applications
  - Collaboration
  - Knowledge construction
  - Skilled communication
  - Critical-thinking
  - Creativity