

GuhIT 2008: A Project-Based Approach to Teaching Digital Literacy

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Introduction

GuhIT was a two-month long project of the First Year High School students of the MSU-Iligan Institute of Technology Integrated Developmental School. It was a final requirement in their Information Technology 1 subject. The special project was an implementation of the Intel® Teach Program Skills for Success Course on the Technology and Community unit. It was a 10-minute presentation on one of the five project ideas namely: *Travel, Park, Disaster, Future* and *Problem* of Iligan City.

The term *guhIt*, which is Filipino for “drawing”, is just fitting for the slogan of the project which is *Paint a Better Tomorrow*. It aims to encourage the students to not only present the problems or flaws of their community but also to suggest and find ways in solving these problems.

I joined the *Intel® Teach Program: Skills for Success Course* at the MSU-IIT College of Education in October 2007. The course, as stated in the Teacher Book, has been created to help teachers develop their students’ technology literacy, critical thinking, and collaboration skills.

I was handling an Information Technology subject for First Year High School students, which introduces them to the History of Computers, Word Processing, Spreadsheet and Presentations. From the Intel® Teach Program, there are three important things that I learned that helped me in handling my IT class, namely (1) the Planning, Doing, Reviewing and Sharing Method or the PDRS Method, (2) the use of rubrics in giving grades and (3) the techniques in project showcasing.

Objectives

At the end of the guhIT project, the students will be able to:

1. Apply the basic skills in word processing, spreadsheet and presentation software.
2. Create a presentation that will describe their community in terms of the categories, namely, travel, disaster, park, problem and future.
3. Cooperate in the planning, doing, reviewing, and sharing of their work.
4. Interact with people, objects and the environment in meaningful and relevant ways (*Intel® Teach Program Skills for Success Course: Teacher's Book Version 1, p.299*).

The Learners

The participants of guhIT 2008 were the First Year High School students of the MSU-Iligan Institute of Technology-Integrated Developmental School. There were 145 students in the First Year level and they were distributed into four sections. The class size was 36-37 students per section. There were 57 male students and 88 female students. In a survey conducted, 53% of the students came from private elementary schools and most of them had knowledge on basic application softwares in their elementary computer education subjects. 90% of the students owned a computer unit at home and 60% of their computer units had access to the internet. In terms of cognitive abilities, 50 out of the 145 students had a final grade of 85% and above on all subjects. Eighteen out of these 50 students had a final grade of 93% and above. Taking into account the fact that most of the students had knowledge on basic application softwares through their elementary education or personal study, I recognized that the learning style of the students was more focused on exploring and creating outputs. I took into consideration these factors in giving the final project to my students. Most of the students have reached the knowledge, content and application level and so the Intel Teach Program Skills For Success Course was very appropriate to the classes as it offered an avenue for development of the

higher order thinking skills (HOTS) and finding relevance in the use of the application softwares.

Project Duration

The project lasted for two months from January to February 2008 with a final presentation on March 6, 7 and 10, 2008. The students used the planning, doing, reviewing and sharing or PDRS method.

Project Implementation

In November to December 2007, before the project was given, a series of activities were performed by the students using word processing, spreadsheets and presentations. The activities trained the students in using the PDRS method. The students were also exposed to the use of rubrics in the evaluation of their activities. Finally, they practiced collaboration by working in pairs for each activity.

In January 2008, an overview of the guhIT project was given to them. The students were then told to group themselves into four's or five's depending on the class size.

A. In the **Planning**, the students were required of the following:

1. **Topic selection.** Each group had a brainstorming on what they would choose from the given categories, namely, *travel*, *park*, *problem*, *disaster* and *future*. The students then chose a topic from these categories. The teacher evaluated the ideas in terms of the students' capacity, age appropriateness of the topic and longevity of the study.
2. **Storyboarding.** Each group created a topic outline. They also created a story board showing the contents (texts, images, hyperlinks, videos, etc.) for each slide. Since the presentation would last for ten (10) minutes only, it was the teacher's responsibility to guide the

students to prepare 15-20 slides per presentation only. This included the introduction and acknowledgements or credits.

3. **Creation of Project Calendar.** The students plotted the activities that they performed during the planning, doing, reviewing and sharing on the three-month calendar. It was a good training for project management.
4. **Identifying of Panel Members.** The students identified the panel members that will evaluate their work through the use of rubrics. The panel was composed of one teacher, one parent and one community leader or a community worker.

B. In the **Doing**, the students were required to do the following:

1. **Data gathering.** The students evaluated the available resources and determined which of these resources are relevant and appropriate to the topic that they have chosen. After the classification, the students gathered the needed information.

Ways of Data Gathering

- a. **Interview.** The students interviewed key persons in different institutions that could give them data or advice on their topic. The students noted these persons in their acknowledgements after their presentation. For example, the group that discussed water shortage interviewed the key persons in the Iligan City Waterworks System. Also, a group that chose a topic on household fires interviewed the fire fighters of Iligan City Fire Department. The firefighters even gave the students emergency

number stickers that they could give out during their presentation.

b. **Documentation.** The students took photographs of people, places and events, including their pictures during the field visitation. The groups that chose the park category took pictures of the vacant lots where they proposed to build a park. During the guhIT awards, a *Best in Photography* award was given to the group that discussed poverty and took pictures of the beggars in the streets of Iligan City.

c. **Internet resources.** The official website of Iligan City (www.iligan.gov.ph) offers a comprehensive data that can be used by the students for their topic. One group also downloaded a video from the Internet that showed the flood in Iligan City last November 2007.

2. **The presentation.** After the data gathering, the students started the creation of their presentation. The students incorporated the data, images, transition effects, animation effects and hyperlinks in their slides. The students were guided in determining the unity, harmony and contrast of their presentation.

3. **Additional presentation features.** The students were advised to add other information or media that would enhance their presentation. The students classified the available resources that were appropriate to their topic. In electronic spreadsheets, the students created data tabulation such as room and amenities of hotels and inns, fare prices in going to the tourists spots in Iligan City, data from the Iligan City government agencies (i.e., Department of Tourism, Fire Department, Disaster Coordinating Council, Waterworks System, City Planning and

Development), project costing of a park and graphs in the form of pie charts and bar graphs. In Word processors, the students created brochures as travel guide and project plans. In the presentation, the students used hyperlinks to link to the different information that they had prepared.

4. **Poster.** The students advertised their presentation by creating a poster using the word processor. The poster included images of their presentation but most importantly, it contained the venue, date, time and the nature of the event which was a multimedia presentation.
5. **Invitation.** The students invited their panel members and guests by giving them an invitation that was made in word processor. Like the poster, the invitation included the venue, date and time. It also included the program flow of the presentation.

C. In the **Reviewing**, the students checked their requirements. They reviewed the items they have identified in their planning. The rubrics also served as a good way of checking whether they had done the things required by the different categories.

D. In the **Sharing**, the students were distributed into clusters. A cluster was composed of three groups with different chosen categories. A cluster presentation lasted for two (2) hours. Each group was given thirty (30) minutes to present. Each group was given ten (10) minutes to present their final output and twenty (20) minutes for questions or classifications from the panel. The remaining thirty (30) minutes was allocated for briefing the panel members and guests, opening program, song performance and serving of snacks.

The program for each cluster was as follows:

Briefing of Panel Members and Guests	5 mins.
Opening Program	10 mins.
Group 1 presentation	30 mins.
Group 2 presentation	30 mins.
Group 3 presentation	30 mins.
Special performance	15 mins.
Serving of Snacks	10 mins.
Total time	120 mins.

There were four (4) clusters that presented per day; a total of twelve (12) groups. The showcasing lasted for 3 days on March 6, 7 and 10, 2008. There were thirty-six (36) groups that presented their topics.

Project Evaluation

What worked primarily in guhIT 2008 is that all the forty-eight (48) groups of the twelve (12) clusters were able to present their final presentation on the assigned date of showcasing. Secondly, most of the students were able to discuss relevant issues of their community that lead to lively interaction with the members of the panel. Lastly, the project was successful in presenting the value of technology in raising awareness of the pressing issues of the community.

On the other hand, what did not work during the implementation of the project is that there were some presentations that were still broad in its scope and which therefore failed to show a brief yet meaningful presentation. Also, some of the slides had either a glaring background or colorful images that were not in contrast with the texts. Moreover, some students failed to write the sources of their data.

As a teacher, what I find easy was that my students had the interest and motivation to perform the project. The students were well exposed to the different application softwares and so my work was just to enhance their knowledge on technology skills. However, the thing that I find difficult was the schedule and the time duration of my class. For the IT 1 subject, we only meet twice a week and it

is one hour per session only. Unlike my IT classes for Third Year and Fourth Year students which were three hours per week, IT 1 was only two hours per week. I had to allocate my vacant time for consultation of their project and they in turn must sacrifice their free time to discuss their project. This compensated for the contact hours that were too limited for the implementation. Another thing that I find difficult was that I was the only teacher handling all the four sections: with 36 groups to instruct, guide and review.

On the students' side, the thing that they find easy with the project was that they all had access to the application softwares and the Internet. The students also owned computer units, digital cameras and flash disks which helped them during the entire process of the project. The students were also given the option to choose their group mates. Most of them chose their close friends in the class which made it easier on their part to adjust and enjoy the whole experience. On the other hand, the thing that they find difficult was the lack of data from the Iligan City government agencies and other institutions. These data could have supported their topics. Also, the students had limited time during the class. They had to meet during their free time, after class hours or even on weekends to accomplish the requirements. In addition, there were also some groups who had group mates who would not collaborate. When I intervened in the process, I found out that most of the reasons are due to clashing of ideas, failure to perform individual tasks and utter laziness. In the end, all the groups were able to present and petty conflicts were also resolved.

The enabling factors or drivers of guhIT would mainly have to be the Intel® Teach Program Skills for Success Course which gave a thorough discussion on Technology and Community. The Teacher's Book served as both a guide and a source of ideas. Another driver is the availability of resources and facilities such as a computer laboratory. Furthermore, I would consider the presence of the panel members as an enabler. They gave very constructive comments to the students in their technical skills such as choosing the appropriate font types, font sizes, font colors, slide backgrounds, transition effects, animation effects and over-all design. They also commented on the

presentation skills of the students such as the quality of the speaking voice, use of the English language and the proper way of answering questions. Moreover, the members of the panel also gave questions that really tickled the critical thinking abilities of the students.

The hindering factor or barrier would have to be time. If there has been more contact hours with the students, I could have guided them more on the consistency and suitability of the slide design, correct acknowledgement of resources and the conciseness of the topic. Another barrier would have to be the age level of the learners. The age bracket of the students was between twelve to thirteen years old. It served as a barrier in a way that the students lacked a wider perspective of the issues that they tackled. For instance, on the topic about future, some groups presented the advancement in technology or skyrocketing edifices yet they failed to talk about the growing population, allocation of resources, urban pollution and other economic conditions of Iligan City in the year 2023. In the topic selection stage, some topics unintentionally became barriers because of the less significance of the study to the community. An example is one group that chose Earthquakes as their topic. I reminded them during the planning process that Iligan City experiences relatively less earthquakes. Although it is still good to discuss about security measures and disaster preparedness when an earthquake comes, the student found it hard to get data of earthquake incidents in Iligan City for the past two years.

Conclusion

GuhIT 2008 is a very good experience for the First Year students of MSU-IIT Integrated Developmental School. If I were to do the project again, I would still do the same process with some additional features. I would like to add more categories such as *People*, which will talk about popular Iliganon and their contribution to the City and to the country; *Arts and Crafts*, which will talk about the rich culture of the city through the colorful *Maranao* and *Higaunon* arts; and *Foundation*, which will enable the students to propose a foundation that will cater to a specific group of people and create a plan of activities that will help sustain

the foundation. Another feature would be the transferring of the venue from the computer laboratory to the MSU-IIT mini-theatre so that we can accommodate more people and we can invite more Iligan City government officials, MSU-IIT officials, college professors, community workers, Intel® Teach Program local trainers, parents and students to witness the various presentations. Another feature would have to be the tapping of other subject teachers to serve as advisers or mentors to the students.

GuhIT 2008 served as an eye-opener to the audience, who are mostly Iliganons, to the present conditions and possible future of Iligan City. Based on the comments of panel members and guests, they were impressed with the simple yet meaningful presentations from twelve and thirteen-year old students.

Sources:

1. Intel® Teach Program Skills for Success Course: Teacher's Book Version 1
2. Services of Iligan City, <http://www.iligan.gov.ph>