

21ST CENTURY LEARNING DESIGN PROJECT BASED LEARNING : SCHOOL CAMPAIGN FOR BETTER FUTURE

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Abstract: the world has changed and things around as are noticeably changing . The unlimited development of technology is altering the pattern of our relationship to information. This global change really demands qualified human resources so that they are able to live on and keep the pace to the rapid change.

Preparing qualified human resources cannot be separated from the role of education. Due to the high speed change in this 21st century, an educational institution then needs to provide the students advanced skills (21st century skills) so that they are able to face their future, to succeed in the globalized, knowledge based world of today. In doing so, there is a need to create a learning design that equip the students the 21st century skills. The learning design should reflect some dimensions of 21st Century Learning : collaboration, knowledge construction, self-regulation, real world problem solving and innovation, use of ICT for learning and skilled communication. Each dimension represents an important skill for student to develop.

Project Based Learning is one of learning models that really matches to the 21st century learning paradigm. This paper is going to present a project based learning : school campaign for better future that has been conducted as the best practice. The students were engaged in projects to create campaign to struggle the real problem happen in the society. The campaign were in the form of visual products by creating brochure/poster, audio product by using song smith and audio visual product by applying photostory program. In doing so, they had to work collaboratively and think critically and communicate actively. The ICT use was absolutely required in the project. They regulated themselves in doing the project and finally they presented their products to the real audience and the products were expected to bring benefits for the real society/audience.

Keywords : *21st century skills, 21st century learning design, project based learning, collaboration, knowledge construction, self-regulation, real world problem solving and innovation, use of ICT for learning, skilled communication*

Introduction

Since the 21st century the world has entered the knowledge based era. The unlimited development of technology is altering the pattern of our relationship to information. This global change really demands qualified human resources. It means that the human resources should have advanced skills that cover ways of thinking, ways of working, tools of working and skills for living in the world to live on and keep the pace to the rapid change. Kang, Kim, Kim & You (2012) noted that there was a change of academic standard during the development of information and communication technology (ICT) and the growth of global economy. Then, this different academic standard forces educational institution to prepare the students.

Rotherdam & Willingham (2009) said that the students success depend on the 21st century skills, so that students are expected to possess these skills through learning process occurred at school. Therefore, there is a need to create a learning design that equip the students the 21st century skills that influence the way of thinking, the way of working, tools of working and also skills to survive in the real world. The learning design should reflect some dimensions of 21st Century Learning: collaboration, knowledge construction, self-regulation, real world problem solving and innovation, use of ICT for learning and skilled communication. Each dimension represents an important skill for student to develop. Project Based Learning is a learning model that represents 21st century learning. It is student centered, engaging, authentic and also process oriented. The expected skills can be well integrated in this learning model.

Literature Review

21st Century Learning Paradigm

The term 21st century skills is generally used to refer to certain core competencies such as collaboration, digital literacy, critical thinking and problem solving that advocates believe schools need to teach to help students thrive in today's world. Then what do we mean by 21st century learning?

Berry (2010) stated that 21st century learning means that students master content while producing, synthesizing and evaluating information from a wide variety of subjects and sources with an understanding of and respect for diverse cultures. They demonstrate three Cs: creativity, communication and collaboration, digital literacy as well as civic responsibility. Virtual tools and open source software create borderless learning territories for students of all ages, anytime, anywhere. Wessling (2012) viewed that 21st century learning embodies an approach to teaching that marries content to skill. It offers an opportunity to synergize the margins

of the content vs skills debate and bring it into a framework that dispels these dichotomies. Beers (2012) emphasized that 21st century learning should facilitate the students to possess 21st century skills. This learning paradigm focuses on the ability of the students to develop critical thinking, relate the knowledge obtained to the real world, work with ICT and collaborate.

Framework for 21st Century Learning

To help practitioners integrate skills into the teaching of core academic subjects, the Partnership has developed a unified, collective vision for learning known as the Framework for 21st Century Learning. This Framework describes the skills, knowledge and expertise students must master to succeed in work and life; it is a blend of content knowledge, specific skills, expertise and literacies. Every 21st century skills implementation requires the development of core academic subject knowledge and understanding among all students. Those who can think critically and communicate effectively must build on a base of core academic subject knowledge.

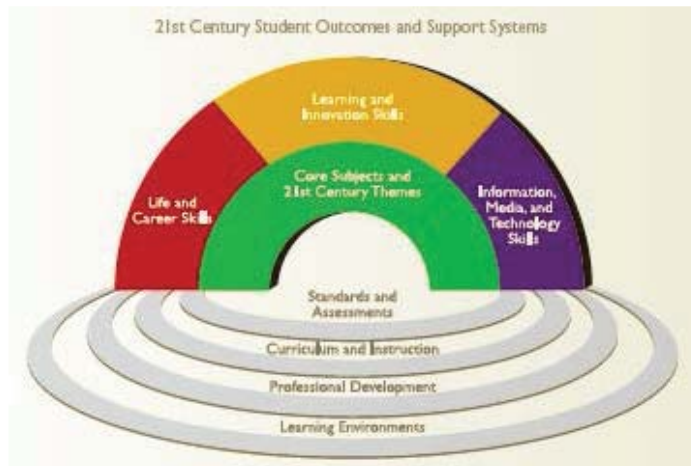


Figure 1 Framework for 21st Century Learning

ATC21S (assessment and teaching for 21st century skills) concluded four main aspects of 21st century skills:

- a. **Ways of thinking.** Creativity, critical thinking, problem-solving, decision-making and learning
- b. **Ways of working.** Communication and collaboration
- c. **Tools for working.** Information and communications technology (ICT) and information literacy
- d. **Skills for living in the world.** Citizenship, life and career, and personal and social responsibility

Mastery of core subjects and 21st century themes is essential to student success. Core subjects include English, reading or language arts, world languages, arts, mathematics, economics, science, geography, history, government and civics. In addition, schools must promote an understanding of academic content at much higher levels by weaving 21st century interdisciplinary themes into core subjects:

- a. Global Awareness
- b. Financial, Economic, Business and Entrepreneurial Literacy
- c. Civic Literacy
- d. Health Literacy
- e. Environmental Literacy

21st Century Learning Design Rubric

Models of learning that better prepare learners for life and work in the 21st Century can be called as 21st Century Learning Design. Educators globally are working to design these new models. As it is stated in Microsoft Partner in Learning, there are 21st century learning design rubrics to help educators identify and understand the opportunities that learning activities give students to build 21st century skills.

- a. Collaboration
- b. Knowledge construction
- c. Self-Regulation
- d. Real-world problem-solving and innovation
- e. The use of ICT for learning
- f. Skilled communication

Project Based Learning

According to BIE (Buck Institute for Education) project based learning is a teaching method in which students gain knowledge and skills by working for extended period of time to investigate and respond to a complex question, problem or challenge. Essential elements of PBL include:

- a. Significant Content
- b. 21st century competencies
- c. In depth inquiry
- d. Driving Question
- e. Need to Know
- f. Voice and Choice
- g. Critique and Revision
- h. Public Audience

Discussion

The main root of this writing is to present learning activity that represents the characteristics of 21st century learning. In this case the learning model used is project based learning. The project based learning was conducted by combining the national curriculum and the rubrics in the 21st Century Learning Design.

This project was conducted in SMA Negeri 2 Playen, Gunungkidul Regency, Yogyakarta Special Province. It was applied in XI graders that belonged to science classes (XI IPA1, XI IPA2 and XI IPA3). There were 21 students in each class then they made groups of three in doing the project.

In the national curriculum, there were two based competencies that expect the students to be able to express meaning in the form of functional text and also exposition text. The students were expected to produce writing in the form of poster, leaflet or brochure for the functional text and they also had to result expository writing. The communicative purpose of an expository text is to convince or persuade the readers about certain issue stated in text. With this function, we tried to combine the content of the core subjects with the themes that represent the themes in the 21st century learning. The selected themes were Global awareness, health literacy and environmental literacy.

Having decided the theme, then we set the PBL. The students were given the task to do project in group. They were expected to investigate and examine real problem that happened in the society. They had full authority to decide which problem they would work with. They had to collaborate, communicate, construct knowledge, apply ICT in doing the project. The final outcomes will be expository writings that were packaged in multi modal products. They had to make bochure by utilizing microsoft office publisher, exposition text (campaign) in the audio visual form by utilizing Microsoft photostory 3 for windows and they also had to make audio campaign by creating songs using Microsoft songsmith.

The students decided the topic that they are going to discuss. The selected topics are :

XI IPA 1	XI IPA 2	XI IPA 3
1. Silicone Injection	1. Hazing (Hard School Orientation)	1. Mark orientation among the students
2. Vandalism	2. Karst Mining in Gunungkidul Regency	2. Internet Booth Phenomena
3. Corruption	3. Early marriage	3. Students Cheating
4. Early Marriage	4. Preservative Food (Bakso Borax)	4. Mobile Phone during the lesson
5. Children and Gadget	5. Teenager Suicide	5. Traditional Game
6. Child Sex Abuse	6. Synthetic Color for Food	6. Under age motor rider
7. Poverty in Gunungkidul Regency	7. Free Sex	7. Under age prostitute (Cabe-cabe)

Project Based Learning Outline

School Campaign For Better Future

Objectives:

- Students will learn about some crucial aspects in creating campaign for certain issue
- Students will learn how to use technology as the tools of working
- Students will learn to solve the real world problem
- Students will learn the way of working such as to work in team/collaborate and also develop good communication skills
- Students will learn some words and language features (in English)
- Students will learn to create product that can bring benefit for the real life other than students.

Materials:

- Equipment: PC, Tablet, Mobile phone, video camera, .
- Software: *Bing Maps, Microsoft Office, Microsoft Powerpoint, Photostory 3 for windows, Autocollage, Microsoft office Publisher, Songsmith*

Standards:

- Citizenship
- Global awareness
- Health Literacy
- Digital and Media Literacy
- Environmental Science
- ESL
- Social Studies
- Technology and ICT
- 21st Century Skills

Lesson Outline

Make a Plan (day 1-3)

- Review the previous lesson. The former class discussed about functional texts. Then direct students attention to focus on brochure/leaflet sample.
- Lead the class into a discussion, suppose they are government official or social community who concern about social issue in the society
- Give leading question : What should you do if you want to invite them to join some steps you offer to solve the social problems?
- Outline the project and make sure that all the students know the goals and the impact of the project for them
- Grouping
- Assign the students to create their own planning to accomplish the projects (time schedule and role distribution)
- Teacher presented the success criteria (assesment) so that they are well aware of their responsibility and able to regulate themselves to take the best endeavour

Day 4

- Build awareness, what should be included in an effective campaign
- Relate the knowledge they got from other subjects to ESL
- Students make some list of required information to produce acceptable ad
- Students share their responsibility to generate idea and obtaining information.
- Arrange interview guideline (What point should be asked)

Day 5 – 15

Constructing Knowledge

1. Collecting Datas
2. Finding information from the real objects
3. Finding information from Internet (Bing)
4. Sharing a question in social media to invite opinion/testimony/expectation from many people even from those who stay far away
5. Conducting observation in the real life
6. Conducting interview, local people, competent part, or government official that handle the issue.
7. Exploring the facts from the society
8. Taking photo, recording
9. Learn more information from many sources or media
10. Reviewing more sample videos of campaign
11. Interpret, analyze, synthesize and evaluate the information

Day 16-17

Learn how to use the tools of working (technology applied) to present the gained knowledge

- Photo story for windows and Autocollage
- Microsoft Power point
- Microsoft office Publisher
- Songsmith

Day 18-22 Continuing to work in a group, to result three products required.
 Day 23-25 Presenting/communicating the product to the class and the real audience to obtain feedback
 Day 26- 28 Revising, Evaluating and submitting the final product

Conclusion

The development of the world today requires better quality of the human resources. It demands people who possess 21st century skills so that they can compete in the globalized world. School as an educational institution need to prepare the students well so that they can survive in the real life. In doing so, the school has to provide meaningful learning experience that can train the students to apply the skills needed the real world or the workplace. One of the ways to provide meaningful learning experience is by designing the learning activity.

Project Based Learning is a model of learning that can give the students authentic experience. With the touch of 21st century learning, the PBL can really offer wide range real experiences for the students so that they can apply their experiences obtained in the real conduct later. Students felt satisfied with their learning because they could find the answers of their curiosity. They also could practice the important skills such as communicate, collaborate, work with technology and also develop critical thinking.

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