LEARNING SCIENCE OUT OF THE CLASSROOM

by:

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Some schools in the Philippines, especially in urban areas can be crowded and less spacious, meaning more buildings and infrastructures were built inside a campus rather than leaving a space for a garden or a park. In rural areas, most schools still have gardens and parks where students may learn and enjoy. It is acceptable to learn Science inside a classroom or a laboratory, but learning can also be enjoyed with nature or garden. An out of the classroom set up could be more fun and interesting to learn Science. The school garden may play an important role like what a Science laboratory can provide, but students’ experience maybe too far different. The garden can be a springboard for variety of Science activities and wide range of lessons in Biology, Earth Science, Chemistry, or even Visual and Performing Arts.

To start, teacher may review the standards and competencies outlined in the curriculum guide provided by the Department of Education. Next is to contextualize an activity that can be performed outside. List these activities and perform a concept mapping ang planning. The list of garden tasks and activities should match with the expected outcomes listed in the standards. The garden is full of creative and interesting resources for teachers.

Omeje (2016) explained the greater role of school garden in implementing the content of science school curriculum. The school garden can be used as a meaningful tool to make learning accessible to all students. When students interact with nature, started to plan, touch and manipulate the plants, care for them, and analyze the gardens, learning science can be more meaningful like never before. In addition, the school gardens can be
very inviting and stimulate students’ experience as they explore and solve problems. The garden also develops senses, thinking, and participation among students. It also helps them improve attitude towards science. There are different things and objects to explore while learning science in a school garden. There might be an organism, life cycles, biological processes, plants and animal anatomy, adaptations, relationships, and life diversity. Scientific skills that students may learn includes observing, identifying and classifying specimens, measuring and experimenting, interpreting data, identifying variables, and testing hypothesis.

The garden also helps develop students’ naturalist and spatial intelligence. Bonimar and Acledan (2015) students with naturalist and spatial intelligence became confident in performing skills especially in Biology. Students with naturalist intelligence excel when exposed to nature. Similarly, spatial intelligence further develops when students explore open and multi-directional spaces. According to them, the science laboratory work and field study remains central to any science curriculum, be it indoor or outdoor in location. Of urgent importance for the successful formation of scientific habits of the mind and scientific investigative skills are the multiple intelligences and attitudes students bring to the laboratory and field study. It’s better to touch the leaves than to look at them on the pictures. It’s better to walk and estimate the area of a rice field than solving the given angles on the board. Catching insects and tadpoles and bringing them to classroom for further studies would be much interesting. Studying Science out of the school setting helps teachers develop spatial and naturalist intelligence among their students.

Science teachers should not limit their instructional techniques in classroom settings doing lectures and laboratory procedures. Learning science with nature and the garden help students appreciate their surroundings and the environment where they belong. This will also provide opportunities for students and teachers to determine
environmental concerns and work on scientific researches to address these concerns and answer the questions that impact their way of teaching and learning.

References:

Lance Omeje, Linking Gardens to School Curriculum, Yokomi School, Frenso, California, 2016
