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: SCIENCE EXPERIMENT / PRE-KINDERGARTEN

ORAWAN CHANAPOLAGRAI : MODEL FOR CHILD PARTICIPATION IN  
SCIENCE EXPERIMENT (SCIENTIFIC-CULTURAL APPROACH) AT SCIENCE CENTER.  
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The objective of this research is to develop the experiment that is a combination of both science and culture for pre-kindergarten children at the Science Center. The researcher has used the theories of learning theory, children development, and teaching process as the basis for this research. Thus, the researcher used the story of water that has been put into the kindergarten and primary school course and that relates the subjects of both science and culture into this experiment. The aim is to allow children to know the origination of water, the pros and cons of water, the economical use of water, and the culture and norms concerning water.

The experimental group included 294 children that were around 5.5-7.0 years old and that were studying in the kindergarten and grade 1 of one private and 1 public school in Bangkok. This experiment divided the students into 9 groups with 25-40 students in each group.

The 60 minute experiment included telling stories, showing hand puppets, and showing simple water reaction. Musical instruments, scientific knowledge, environmental knowledge, and cultural knowledge were also introduced into the experiment. Moreover, permission for participation of children was also allowed.

It is shown from the following experiment that all the above activities did stimulate the attention and did strengthen the understanding of children. The two important results, which has been evaluated by both the observation of the researcher and the children themselves, are that the children can correctly answer the scientific questions, and that the social background of children does effect the learning process of the children. These two important findings can be adjusted for further use in education in the Science Center, centrally, and provincially.