

## IMPROVING SCIENCE PROCESS SKILLS OF JUNIOR SECONDARY STUDENTS BY ACTIVITY-BASED LEARNING PROCESS

Liyanage T.I.S.S.<sup>1\*</sup>

<sup>1</sup>Institute of Fundamental Studies, Sri Lanka

\*tissgr@yahoo.com

Improving science process skills (SPSs) of students of Sri Lankan education system is considered as an important aspect. Many attempts have been taken over many years to develop skills of students with an intention of producing skilled labor force for the modern world of work. As the solutions to the problem, many reforms and practices specially in school science curriculum have been introduced by the government as well as the collaborative educational institutes. According to many research bodies, even under many changes made, a much progress has not been visible, such as students level of achievement, active participation, choosing science subject in advanced level. This study was conducted with the objective of identifying the hindrances for improvement of skills of students at school level and finding out a best teaching practice which could be adopted by Science teachers to improve the basic SPSs of students. A group of fifteen number of fourteen year old students from an intact class of grade nine was chosen as the sample, which the students of age that the cognitive skills are being rapidly developed. Activity based science teaching practice, with a varied strategies such as experiments, group activities, field work, projects, individual practices, presentations were conducted throughout the action research to improve six basic SPSs which are namely observational, classifying, predicting, communicating, measuring and inferring among the students. The students achievement levels of SPSs before and after the intervention was tested using an achievement test paper developed by the researcher. The evaluation of the pre and post test results using Microsoft Excel displayed that the percentage of improving of the students average achievement level was 80%. The results conclude that a teaching learning process, targeted on improved SPSs would be an influential fact to provide the skilled individuals for the present technology based world of work and development of a policy framework focusing activity based science education at the junior secondary level can be recommended from this study.

**Keywords:** *Science Process Skills, Activity based Science education, Skilled Individuals*