

## The Posture that is demanded from the Leader of the Science Research Activities of the Senior High School Students

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At various opportunities, it is argued about the way of the science research activities of the high school students. Is it necessary to change the method of the evaluation in a group study and a personal study? Is a study of the engineering and agriculture study easy to get a high evaluation than fundamental researches? Do you evaluate it only based on study contents or increase the appearances of the presentation and the article in an evaluation standard? Do you make much of enthusiasm and sense of cooperation whether you make much of originality and priority? How much do you accept the participation of the leader? For a student researching activities for the first time, the role of the leader is serious. I consider it how a leader should be concerned with a student.

I instructed Earth Science Club in Hyogo Prefectural Kakogawahigashi Senior High School that was SSH school for ten years, and I moved in Nishiwaki Senior High School in 2014, and I instruct Earth Science Club in the principal school. The Earth Science Club continues a national higher winning prize in a Ministry of Education, Culture, Sports, Science and Technology authorization meet in succession for 12 years. It is to always ask a student saying "it is why" that I keep in mind in instructing a student study, and I watch still it after teaching told the basic technique and foam. For example, I ask a student why it must be the theme. The student must show a motive concretely to answer this question. In addition, the student cannot explain a purpose to me definitely if he does not check a precedent study properly. I do not let a student only study it for the reason to seem to be interesting. Such a student comes to a deadlock on the way and often abandons a study. For a leader achieves a purpose to a student, a thing important next is to ask what kind of experiment and observation are necessary. If a purpose is clear and learns the precedent study, I think that a student greatly deviated from appropriate experiment and observation method. I try to let a student do it without saying a careful thing at the beginning.

When a result became clear, I hold a briefing session and let a student explain a policy and the result of the study. In many cases, the condition of the experiment is divided, and an error is not handled properly, and the data does not have the result. I point it out and let you do the fresh start of the experiment some other time to be concrete. I let a student learn that it must be the thing that an experiment and observation go to the study purpose linearly. After an experiment and observation is finished, I let consider it between students. Even if a good result is given with much effort, because a student lacks in both the knowledge and the experience, he cannot evaluate it definitely and summarize it in generalization. I explain the cause that a discussion comes to a deadlock to a student, and I show the article that I should read to a student or the chart which I should compile. I strongly instruct a student to consider it only from a result. Most of students confuse the story that he heard somewhere and the results, and they are considering it which he cannot arrive at from a result. Of course I instruct it about the rule in the chart making strictly. For example, I do not use the graph which looked at the bar graph from a slant in the science. The student finally summarizes results of research in an article, and I teach the style of the scientific article properly. First, the student writes the article such as the letter. He distributes one's result and a precedent study properly and does not show the consideration separates a precedent study and his results of research definitely. I instruct a student about these, and entrust a student afterward.

The student finishes writing a surprisingly wonderful scientific article by a leader instructing it. The article that the student wrote may be judged as a leader wrote it.

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