SUMMARY OF NEW CONCLUSIONS OF PHD THESIS

Title: **Inquiry - based teaching: Fundamentals of genetics in biology class in specialized high schools**

Speciality: Theory and Biological Teaching Methodology

Classification: 62.14.01.11

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Advisor: Associate Professor – Dr. Le Dinh Trung and Dr. Tran Van Kien

Institutional: Hanoi National University of Education

New findings of the dissertation

1. Thesis built the theoretical basis of teaching inquiry and identified the reality of teaching inquiry at gifted high schools.
2. Thesis identified the concept of teaching inquiry, in which teaching inquiry through topics is considered as a teaching method when learners experience throughout inquiry activities following the orientation of teachers in order to discover knowledge.
3. Thesis identified concept of scientific research capacity; as well as identified structure of scientific research capacity of high school students with 5 elemental skills and expose quality level of each criteria.
4. Thesis identified the relation between inquiry and scientific research activities, in which scientific research activity is an inquiry mean following the model of deploying scientific topic.
5. Thesis proposed design process for teaching inquiry including 7 steps and proposed process of teaching inquiry through scientific topics including 8 steps. Simultaneously, proposing solution using teaching inquiry procedure through scientific topics including 2 phases following the way of developing scientific research capacity for students with 4 levels.
6. As can be seen from the experimental results, the procedure of inquiry-based teaching via scientific topic is a educational method to organize teaching with the purpose of improving the scientific research capability for biology – specialized in the teaching of the Fundamentals of Genetics.

Hanoi, Nov 19th 2016

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