THESIS TITLE : A DEVELOPMENT OF LEARNING ACTIVITIES IN PHYSICS REGARDING COLLISION AND MOMENTUM ON INTERNET NETWORK FOR UPPER SECONDARY SCHOOL STUDENTS

AUTHOR : MR.LEANG CHATATHICOON

THESIS ADVISORY COMMITTEE :

.....Chairperson

(Assistant Professor Thianchai Panucittikorn)

.....Member

(Assistant Professor Paisan Suwannoi)

ABSTRACT

The purpose of this present research was to study a development of learning activities in physics regarding "Collision and Momentum" on internet network upper secondary school students. Using internet instructional model, The researcher synthesized it from Boonruang Niamhom's Internet instructional model framework (1997) and action research methodology. The researcher teamwork included the researcher , two co – researchers , five co – researcher students and the samples who were mathayomsuksa 5 students , second semester ,1999 academic year. The instruments were five lesson plans, Physics homepage regarding "Collision and Momentum", experimental observation recording form, an evaluation record of experimental practice form,and the learning achievement test.

The qualitative and quantitative data was collected according to the following steps: (1) teaching as lesson plans and collecting qualitative data by an experimental observation recording form and questionnaire in order to improve

the following instructional activities, (2) collecting quantitative data form the learning achievement test during and after the lessons, and collecting both qualitative and quantitative data form an evaluation record of experimental practice form , an experimental observation recording form. the qualitative data were analyzed by interpretation and validity investigation and reporting the findings in descriptive form, form an evaluation record of experimental practice form , an experimental observation recording form,and questionnaire. The quantitative data were an by frequency ,percent , mean and standard deviation.

The results of this research were as follows : The physics instruction topic "Collision and Momentum" on the internet network according to an Instruction Model synthesized by the researcher from Boonruang Niamhom's (1997) was necessary and appropriate to use with the mathayomsuksa 5 students. It found that the organization of instructional activities on the internet network could create the students' interest and attention. The students also develop their learning potential fully - students could share their learning group experience all the time and express their opinion both in high and low achievers. They practice many things and created their imaginary, expressed themselves clearly and reasonably. They were reinforced to find out solution by themselves and cooperate with others. They practiced themselves to have discipline and responsibility at work. They were evaluted immediately. So, They could improve themselves and be recognized by others. They also were interested in searching for knowledge continuously. As a result,they could have higher learning achievement.