

Abstract

The main purpose of this study is to determine the impact of (a) Instructional Development Intervention (IDI) on Instructional resources development and time management and (b) Organizational Development Intervention (ODI) on investment and working performance as a teacher in grade 9 science (physics) class at Saint Gabriel's College, Thailand.

The situation is that physics topics are not included in science textbooks and data are not up to date. In terms of classroom management the concern is that there are many students in class and they lack teamwork. They are not used to learn together in groups. In terms of time management, this becomes a concern since students who are absent have a hard time to catch up with their lessons and there is little time to discuss again the topics they missed. A lot of money is being spent for books and materials. In terms of working performance, teachers lack teamwork. They have a heavy workload and a negative attitude among them is noticeable.

The study is beneficial for students to use the new materials in their science (physics) class, for teachers to create new instructional materials to develop their teaching strategies and improve their ability to use ICT. Investment in science books and materials can be minimized and also reduce the use of paper which affects global warming.

The research design of this study is based on the three phases of the action research model which were Pre-IDI/ODI, IDI/ODI and Post-IDI/ODI. The researcher identified the respondents into two groups as follows: In group one the students were 210 persons and group two had seven teachers, two administrators and one office staff. This study used both qualitative and quantitative analysis. The qualitative analysis was done on the data gathered from observations and interviews. The

quantitative analysis was done on the gathered information from the survey questionnaires which were analyzed using average mean and paired sample t-test to analyze the difference between Pre and Post IDI/ODI.

There were several IDI/ODI activities that the researcher put into action in order to develop the students, teachers and administrators to design effective instructional materials included teaching strategies, students and teachers ICT workshop, creating web site and using electronic book (eBook).

After IDI/ODI activities had been implemented, there were positive significant changes in grade 9 level and also in school such as new materials for students. They have more access to ICT and various instructional media. Teachers are more interested to work in the laboratory and improve their knowledge in science (physics) to prepare their lessons better. Teachers have more computer and ICT skill, more self-confidence, are more creative and can create their materials. They can finish lessons on time and good at managing time. Administrators realized the need to introduce innovation in instruction, reduce the investment and budget of paper and science books.

Finally, the IDI/ODI activities should not only be done in a short time but the school needs to practice and have continuous development of students and teachers which may enable the school to be the leader in the education world.