

Abstract

This study is about evaluating learning package of a chemistry subject (types of chemical reactions).

This study investigates how technology improves learning process, and how supports this process. On the other hand, this study has a more specific role in searching the effectiveness of using the computers in Sudanese schools, especially in secondary schools, and how that techniques can enhance and improve students' performance and learning.

This project includes two steps:

The first step of this project is to design and develop software as a learning package under the topic: types of chemical reactions.

The second step is to apply this software on a sample of students from different Sudanese secondary schools to evaluate the role and impact of using the computer in learning process. The results of this study explain the positive role of computer in educational process, although all teachers in government and private Sudanese schools are still using the traditional methods to teach such as blackboard and chalk and so on.

The data of the researcher was obtained by procedure experiments applied in this study, teachers' interviews (Evaluation form for Educational Software), the pre and post-tests (Test in Chemistry) for students, and checklists, then the data were analysed.

The results obtained were as follows:

1. Teaching and learning through the computer will be more meaningful for students, if the students and their teachers share responsibility for developing learning goals and objectives; promoting reflection on experience; and evaluating what is being learned.
2. Students working in cooperative groups tend to be more intrinsically motivated, intellectually curious, caring of others and psychologically healthy.
3. Working in group gave the learners the opportunity of sharing knowledge, because some were good with computer and some were good at English and both of two help the rest of the learners, so the one who provides help in some thing, needs help in another. Means, it lead enhances and improves learning process.
4. Incorporation between constructivism and behaviorism gives the useful and very successful actions.
5. The students' performance has improved in their learning when doing pre and post-tests.
6. The teacher has important role in learning process that because he is external evaluator thus encourage and increase the motivation of students.

