

Research ways to use one computer in the classroom

Table of contents:

1. Introduction.
2. Review and analysis of the main research ways to use one computer in the classroom.
3. Conclusion.

1. Computer is one of the main educational and training tools for use in the classroom by a teacher, as computer and the Internet is regarded as the basic source of knowledge. Often there are not enough computers for providing appropriate teaching and learning process in the classroom, but there are some significant teaching methods of use one computer in the classroom which can help teachers to organize the process at high level. The aim of this paper is to show appropriate research ways to use one computer in the classroom and analyze them from different points of view.

2. There are some key research ways which can be used by teachers if there is only one computer in the classroom. One of these ways is the method of use the computer by students who fulfill a specific task in small groups: "One strategy that many teachers use is to create multiple activities with stations. Students are given a problem to solve where the computer is only one of the available tools (Anderson, 1995)". So, students use such resources as textbooks, encyclopaedias, teacher's materials, and while completing the task they use computer as supplementary resource of knowledge. They can search for some special information which can be difficult to find in other sources. In addition to that, use of

the computer as more visual teaching method can be rather useful for learning process. The students should find appropriate information during limited amount of time – this method develops such learning skill as ability to find necessary information during certain time span using the Internet and many types of educational software. The negative feature of this method is limitation of time which a group of students have to use the computer – not all students are able to use this method appropriately, and the teacher's aim is to organize the process effectively and access and evaluate the skills of all students.

A teacher can also use one computer as multi-media blackboard, but in this case the computer must be connected to TV box, and the screen size must be large enough for all students to be seen. By such way a great variety of material can be presented, such as: "Demonstrate concepts: for example, add descriptive words to a sentence or rearrange the sequence of words in a sentence to change the meaning (Burkhart, 1999)". By using this method a teacher controls the process of material showing and monitors the lesson flow. But the negative feature of this method is that not all students are active, and the teacher needs time for such problems resolving as discipline and distraction.

Rather simple method of using one computer in the classroom is material printing. Printed information is often remembered better than that on computer screen. While preparing for the lesson the teacher prints necessary material from the computer and give it to students.

Students also can print the materials while preparing for the lesson – this method helps them to select appropriate information and present it in printed form. So, while they use these printed lists of information, other students get the possibility to work at the computer: "While students are going though material they printed, extracting and pondering the information they found, other students can be using the computer to find and print pages with the information they need (Anderson, 1995)". A visible advantage of this method is a possibility to print the information from the Internet – this information can later be used without necessity to access to the Internet.

One computer in the classroom can be used by both large groups of students and small groups. Using computer by small groups are more effective, as this method provides necessary access of all students to the computer and develops such important learning skills as group working and mutual support while doing certain tasks. In addition to that, some particular students work with the computer and contribute to the work of a whole group, for example: "Have each student write on type of sentence, for example, a topic sentence, and use this information for a class discussion on that type of sentence (Burkhart, 1999)". The students are aimed for center activities and provide effective support to each other.

For more effective outcome of the work with one computer in the classroom students should be good prepared for such work. If students are going to use the Internet they must know the key features of work in the Internet: how to look for necessary information with the help of search engines, online libraries and other resources. It can be useful for them to make a plan of their work with the computer before to start it: students define aims and purposes, prepare key words for effective searching and specify their search parameters with the help of a teacher: "Have students plan their use of the computer before they get on it. For example, have them storyboard, write, or draw their project before putting it on the computer (Lim, 1998)". Skilful computer using in the classroom provides time economy and problem-based activity skills development.

Effective use of one computer in the classroom can be achieved by students doing different types of individual work. It can be a work at a project, writing papers concerned the topics discussed with the teacher, studying of different texts, slides, programmes and other materials or printing necessary materials for the lesson. Before use the computer a student should know basic skills of computer science and have appropriate experience of work with computers. This work must be appropriately organized by the teacher: students should save their works in their own or group folders, and the student should be responsible for the computer he uses (it is also useful for a teacher to have students who are rather skilful at

computer work and can be good consultants for other students). The teacher also can make database for each student or group of students who work with the computer – this database helps the teacher to assess and evaluate students' achievements and success; the database can help students to find appropriate material found and analyzed by the teacher and more effectively organize their own work with the computer and at their lessons preparing.

If there is only one computer in the classroom but other computers can be available in other classrooms a teacher can organize the work with computers in appropriate way: "If your school allows moving computers between classrooms you might be able to work out a "deal" with another teacher to borrow their computer and lend them yours at another time (Anderson, 1995)". Some of students, if available, can work on the computer in next classroom if it doesn't bother the learning process in that classroom.

One computer can also be effectively used in communication purposes. Teacher can send e-mails to particular students or even to a whole group of pupils (and vice versa) – direct connection between teachers and students helps to improve teaching and learning process by assessing, consulting and directing students' independent learning activity.

One computer in the classroom can be a good basis for out-of-class activity under the teacher's head. This activity can be centered on different kinds of work: writing projects, creating web pages and presentations, making charts, graphs and many others). Students' activity should play appropriate role in this process: "Students can contribute to large group projects (i.e., class magazine, class book, class presentation, timeline, class journal, creative writing, Inspiration document, Kidspiration project) (Lamb, 2002)".

3. The paper has shown appropriate research ways to use one computer in the classroom and analyzed them. Of course, there are many research ways for one computer using, but the paper has just underlined the basic views and approaches applying by teachers and scientists. Available amount of computers can provide better results of teaching and learning

process, but when there is only one computer in the classroom a teacher still has a variety of methods to use it in appropriate way. The research ways indicated above can diversify and improve students' knowledge and result in better teaching and learning results.

Sources

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