DOCUMENT RESUME

ED 271 372 SO 017 311

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TITLE How to Incorporate the Computer into the Social Studies Classroom.
INSTITUTION Tom Snyder Productions, Inc., Cambridge, MA.
PUB DATE 86
NOTE 13p.
AVAILABLE FROM Tom Snyder Productions, Inc., Educational Software, 123 Mt. Auburn Street, Cambridge, MA 02138.
PUB TYPE Guides - Classroom Use - Guides (For Teachers) (052)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Computer Assisted Instruction; Computer Managed Instruction; Computer Oriented Programs; Computers; Computer Science; Computer Simulation; Computer Software; *Computer Uses in Education; *Educational Technology; Elementary Secondary Education; Programing; *Social Studies; *Teaching Methods
IDENTIFIERS Computer Games; Social Studies Teachers

ABSTRACT

This brochure offers answers to 13 questions about using computers in the social studies classroom. Written by teachers for teachers, its goal is to provide a foundation to consider whether or not computers have a place in the classroom and how to go about using them if they do. The questions are: "What's in this booklet?" "Should I be using computers in my social studies classroom?" "What can I do with computers that I couldn't do before?" "Where do I start?" "What can I do with a computer lab?" "What can I do with one or two computers in my classroom?" "What can I do with a computer permanently in my classroom?" "What do I need to know?" "How do I find good software?" "How do I evaluate software?" "How do I find the time to find software, learn how to use it, and become comfortable with the technology?" "Where do I find the space for this equipment?" and "Where can I get the resources for the hardware and software I want?" (TRS)

How to Incorporate the Computer into the Social Studies Classroom

Tom Snyder Productions, Inc.
Educational Software

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About the Authors

The authors of this brochure, David Dockterman and Tom Snyder, are teachers. David received his B.A. in History and teaching certification at Yale University. He taught high school social studies and history for several years in Connecticut before entering the doctoral program at the Harvard Graduate School of Education. Currently, David is one of the prinicipal designers of social studies software at Tom Snyder Productions. He remains active in schools, working with teachers and serving on the Computers for Kids Board of Cambridge, MA.

Tom, the Chairman of Tom Snyder Productions, received a B.A. in French from Swarthmore College and his M.A. in Education from Lesley College. He taught science and music at the Shady Hill School in Cambridge, MA for ten years. As the author of best-selling educational software such as the Search Series™, Snooper Troops®, Agent U.S.A.™ and In Search of the Most Amazing Thing™, Tom is one of the most respected software designers in the industry.

This brochure is produced by Tom Snyder Productions, Inc., a leading developer of educational software in the United States. We specialize in producing high-quality products that help teachers do what they do best - teach. Simulations such as **The Other Side™**, **Decisions, Decisions™**, **GeoWorld™**, and the **McGraw-Hill Search Series™** are designed specifically for classroom use. These programs stand out because they teach critical thinking skills in the context of the social studies curriculum. Thousands of teachers throughout the world use our programs to build educational skills, foster the development of social skills, and encourage cooperation among students.

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1. What is in this booklet?

This brochure is about using computers in the social studies classroom. It is written for teachers by teachers. Our goal is to provide you with a foundation which will enable you to consider whether or not computers have a place in your classroom. And, if they do, how to go about using them. We hope that we can be of some help.

2. Should I be using computers in my social studies classroom?

This is a hard question, and one that only you can answer. Although computers have already been integrated into other disciplines, they are just beginning to enter the social studies classroom. You may have heard some great stories about what computers have accomplished in some classes; you may also have heard some severe criticisms. It's difficult to know what to do.

Film and Computers: A Helpful Analogy. To help you gain some perspective on the situation, we have a suggestion. Pretend it's 1920 and ask yourself the question, "Should I be using movie projectors in my classroom?" Knowing what you know now about educational film, you might not find this question particularly difficult or important. In 1920, however, leaders in film technology were claiming that this medium would radically change the schools. Thomas Edison predicted that children would be beating down the doors to get into the classroom. Such was the expectation for movies in education. Sound familiar?

Computers and films were not originally designed as teachers' tools, but both have potentially valuable roles in education. A good movie or a good piece of computer software is like a work of art that can draw students into new worlds, sending them on a field trip without ever leaving the classroom. The ultimate value of educational films and software, however, depends greatly on how they are used. In the 1920's, film advocates believed that the teacher needed only to turn out the lights, turn on the projector and children would be transfixed. Teachers quickly found, however, that when they turned out the lights, children did not always focus on the movie. Discipline became a major problem. The materials simply did not work by themselves. They needed, and continue to need, a good teacher.

As a teacher, you play a major role in the effectiveness of software. This is why we at TSP encourage you to trust your instincts and judgement in deciding how to use computers in your classroom. We believe that computers should be "tools for teachers." Software should be designed to fit easily into the existing curriculum and classroom structure.

3. What can I do with computers that I couldn't do before?

Computers are very powerful machines. They can store, retrieve, and manage large amounts of information quickly. They can also illustrate how things work and how pieces fit together in an interactive, animated style. Sometimes these capabilities open new doors, allowing you to do new activities you never before considered. In other situations, the computer's power enables you to enhance what you already do.

In general, educational software takes advantage of the computer's ability in five different ways:

• **Simulations.** Social studies has a tradition of using simulations to bring historical and contemporary topics to life. Students take on new roles -- they can become crew members of a ship sailing for the New World or a senator trying to pass a bill. They become actively involved in collecting and interpreting data, and making group decisions. However, traditional classroom simulations can often be limited by the number of elements needed to reproduce the desired situation. In a simulation of the United States Senate, for example, it's difficult to include all the pressures of constituencies, lobbyists, PACs, and party leaders, while playing out the mechanics of passing a bill. It's a great deal of information for one teacher to keep track of. The computer, with appropriate software, can help you expand the limits of the simulation by managing many of the elements for you. Good software simulations engage students in collecting and interpreting data, debating, and making collaborative decisions -- the critical thinking skills which are central to the study of social studies.

• **Drill and Practice.** Worksheets and flash cards have long been used to reinforce factual information. These exercises often become tedious for teachers. Drill and practice software relieves some of the drudgery, presenting students with questions, immediately evaluating their responses, and reporting their results. This type of software can help students memorize facts, such as the names and dates of the presidents.

• **Tutorials.** Students learn material at different paces: some may have difficulty grasping a particular body of information, while others may be ready to move ahead. It can be difficult to accomodate these individual differences. Some software can help by leading students through material, based on their individual levels and interests. These tutorials are a form of interactive self-teaching.

• **Databases.** Databases are like having your own index cards stored on a disk with the advantage of being easier to organize and find information. Students can use databases to look at, explore, and manipulate historical and contemporary data in a myriad of ways. For

instance, students might examine economic trends or compare the populations in different cities or countries.

- **Programming Languages.** The computer can also become its own erector set. With the appropriate software and training, students can write programs with social studies applications. They can create models of simple businesses, write programs that analyze data, or devise their own drill and practice exercises.

4. Where do I start?

In order to consider using computers in your social studies class, you must begin by thinking about what you want and what you can do. Each one of you is in a unique situation with different computer resources, teaching styles, and curricular goals. No doubt, much of your thinking about using computers will be structured by the resources available to you. The next three questions describe different ways to use your computer resources.

5. What can I do with a computer lab?

Lab settings with large numbers of computers ensure that each student has access to a machine. Labs are physically designed for students to work individually or in pairs at a computer. This structure does not lend itself to the usual social studies activities of discussions and lectures. The following are some alternative ways for using a lab:

- **Drill and practice and homework.** The lab setting can provide activities for different students' needs and interests. You can organize self-study or homework projects to be done in the lab during class or study periods. Students can use drill and practice programs to help them memorize facts and prepare for exams. Alternatively, they can use word processing programs to write reports and create materials for projects. However, managing a variety of individual projects at the same time can be a major task for the teacher. It is also important to consider whether or not the computer provides advantages over traditional methods of drill and practice.

- **Research.** Computers provide new ways to search and examine information. Students can sift through databases or perform statistical analyses as part of research projects. In this way, the lab setting can be a valuable extension of the school library.

Software databases on a variety of topics are currently available. Students, for example can sift through GeoWorld's real data on the distribution of the world's major industrial resources. Through their research, they will discover the relationships between different resources and industrial development. In addition, students can tap into on-line

databases, such as **Compu-Serve**, **The Source**, and **Dow Jones**. These information utility services provide up-to-date information from all over the world.

Students can also create their own databases by using programs like **PFS®** and **AppleWorks™**. Students can become survey takers collecting information on their own community. In Weston, Massachusetts, students put together their own database on the industrial history of the Boston area and its ecological impact on the Charles River. It may take some time to learn how to use available databases, but most worthwhile projects demand an initial investment of time and effort.

6. What can I do with one or two computers in my classroom?

Many teachers have access to computers that they share with others. Sometimes the computer is on a cart and you can wheel it right into your classroom. Unfortunately, most educational software is designed for one or two users at a time and is not conducive to the classroom setting of one teacher with 20-30 students. This situation creates a management problem. If you send two students to the computer, what do you do with the other 25? Finding a way to rotate an entire class through a computer program, while keeping everyone busy, is a significant administrative task. You must consider if it's worth it. You want the technology to work for you, not the other way around.

The popular assumption that computers are best used by only one or two students at a time should be questioned. In many ways, the computer is a public vehicle. After all, it displays information on what is essentially a television set. Our focus at Tom Snyder Productions is creating software that involves an entire class using only one computer. For example, **Decisions, Decisions** and the **McGraw-Hill Search Series** engage the whole class in curricular-based simulations.

These are some management techniques for taking advantage of one or two computers in your classroom:

Using Software Designed for One or Two Users

- **Stations.** Divide your classroom into several activity stations which support the current subject area. You can set up one or two stations with computers and software. Other stations could have activities involving maps, charts, books, and worksheets. Rotate individual or small groups of students through the stations until they have all completed each activity.

- **Projects.** Use computers as one of the resources necessary to complete independent projects. Create a schedule for students to sign up for computer time. When the computer is not available, students can use library books and other research materials.

• **Demonstrations.** Hook the computer up to a bigger screen or to additional monitors (cables are available that split the video output), so you can involve a larger audience. With this arrangement, anything you can do alone at the computer you can do with the whole class. You now have a type of interactive film or slide. The computer, especially with its graphics capabilities, can illuminate difficult-to-understand information in powerful ways. By using software with graphing capabilities, you can show your students the results of changing specific variables without having to redraw the graphs. This is an excellent way to demonstrate "what if" scenarios.

Using Software Designed for Groups

• **Small Groups.** Some software, while designed for small groups, is not structured to handle the numbers you have in your classroom. The program may accomodate eight players, while you have 20 or more in your class. With two computers, you can easily double the number of students involved in the activity. In addition, you can have students take on related non-computer roles, such as note-takers, or reporters.

• **Whole class.** The TSP vision is to create software which can engage an entire class with just one computer. In the **McGraw-Hill Search Series**, the class is divided into small groups which rotate through turns at the computer. While one group is at the computer, the other groups are examining new information and discussing new options. The program will send one group of students back to their seats and call for the next group. This enables you to move around, assisting students in interpreting data and making decisions. It is helpful to designate classroom areas where the groups can meet. Some software contains timers which you may be able to reset or turn off to match the specific needs and abilities of your class.

In other TSP programs, the class works as a whole. The teacher stands at the front of the room, and there's no need to rearrange the classroom. For example, **Decisions, Decisions** assists the teacher in involving the entire class in stimulating discussions of historical and contemporary topics, such as immigration and colonization. The software serves as a spark, giving students new situations to analyze and decisions to make. It records and manages all the data, enabling you, the teacher to lead discussions and help students make decisions.

The following is a teacher's account of using **Decisions, Decisions** in a seventh grade social studies classroom in Boston:

I wanted my social studies class to relate the history of U.S. foreign policy to currents events in the Philippines and Haiti. How should the U.S. interact with other countries in the world? Usually, I use the approach of

presenting students with the question, "What would you do if...". They make decisions and I play devil's advocate to help them understand the consequences and reasons for different actions. This time I decided to use a software program called Foreign Policy: The Burdens of World Power.

I wheeled the computer from the social studies office into my classroom and set it next to my desk. I planned to lead my class through the simulation by pushing the buttons and reading what appeared on the screen. I handed out a Student Reference Book to each student and loaded the software into the computer. While students followed in their books, I read the opening situation. In this simulation, students assume the role of leader of one of the world's super powers. An ally, a king, asks them to suppress a rebellion in his nation. The king says a rival super power will take over his strategically important nation if he can't stay in power.

The computer first asked the class to prioritize the four goals it presented to us: A) Get re-elected; B) Protect our citizens abroad; C) Keep the nation in question as an ally; and D) Set up a popular leader in that country. I led the discussion and, after much debate, the class voted C as top priority. Then the computer directed us to select our first action from these choices: A) Keep a low profile--no more aid; B) Increase aid to King; C) Pressure King to hold elections. We were off and running.

Each action had consequences which the students had to confront, and each new situation posed new choices. To aid students in discussing their options, the computer displayed four advisors who referred students to their reference books. There students found historical references that applied to their current situation. One student read about Teddy Roosevelt's imperialist actions while another read about cautious detente. Each reference led students in a different direction and supplied me with more meat for the discussion. Since many of the references were about incidents we had already studied, I had the opportunity to reinforce them and make the connections stronger.

The experience was invigorating. I kept my usual position as classroom leader, but this software made my job easier. It managed the content, freeing me to concentrate on the art of leading a good classroom discussion.

7. What can I do with a computer permanently in my classroom?

You can do all that we have described above, plus more ... if you are willing to invest the time. If you have constant access to a computer, you might be able to use it to help you with the day-to-day management task of grading, attendance, and report-writing. Your school might already own some management software. Check with the math department and the main office to see what they're using. You need neither the power nor the

complexity of elaborate business software, but some simple programs might be useful. If you know how to program you can create your own grading program.

A great deal can be done with just a word-processor--it can be used to create worksheets, write lesson plans, and make outlines. Any of these uses take a certain amount of start-up time, finding the software you want and figuring out how to use it. In the long run, you may find yourself saving a lot of time depending on how much access you have to a computer.

8. What do I need to know? (Do I need to learn programming?)

You *need* to know as much about computers as you need to know about film if you're going to show movies in your classroom. You don't need to be able to make a film in order to use one, and in the same way you don't need to know how to *program* in order to use a computer. It is useful, however, to know how the equipment works, e.g., how to boot a disk.

It is also valuable to "understand" the technology, to know what its capabilities and limitations. This can be difficult because the technology is ever changing. We are still experimenting with what can be done with computers, and everyday someone is coming up with a new and unexpected application. Nonetheless, the more you know, the better you'll be able to evaluate software, and the sooner you'll become comfortable with the machine.

9. How do I find good software?

This is a good question. We wish we had a better answer. Finding good educational software is like finding a good educational film, somebody tells you about it or you preview something worthwhile. In addition, definitions of "good" and "bad" tend to be personal and relative. Much depends on how the software is used. In general though, there's probably more "bad" software than "good", so you have a lot to weed through. Few teachers have the time to examine an untold number of computer programs to find one they can use.

Here are some tips for finding good software:

- Whenever possible, order for preview. Test out the product before you buy it. Most companies offer a 30 day preview period.

- Use software reviews to help you narrow down the field. See pages 10-11 for a list of journals and review catalogs.

- Consider the source of the reviews. Articles in computer magazines may not be written by social studies teachers, and reviews in social studies journals may not be done by teachers with much computer experience.

- Talk to your colleagues. Find out which programs they like to use.

- Remember that you are the best judge of what will work in your classroom.

10. How do I evaluate software?

The best way to evaluate a piece of software is to play it yourself. It's helpful to go through the program as a student who has difficulty following directions. Make a lot of mistakes to see how the program responds. If you find it boring or tedious, chances are your students will too. Look for programs that you find interesting and fun. Your students will probably like what you like, and your enthusiasm for a product will influence your class.

Finding the time to try out software can be difficult. Another problem is evaluating software designed for group use by yourself. A program built to involve many students at once can be very confusing for a single player. How can you tell if it is any good? Ideally, you should gather a group of friends or colleagues together to try it out. This method, however, is not always practical. One possible solution is to give the software to some students to play. Ask for volunteers after school, during lunch, or during a study hall. Don't ask them to evaluate, just let them explore. The results of their efforts will often give you a good sense about a program.

Despite individual differences in classroom settings and teacher goals, there are a few general questions you should ask when looking at software:

- Does the software suit my course content ?

- Does the software fit the resources I have available, e.g., lab with many computers, one computer for whole class, etc.?

- Does the software fit into the school schedule? Can I save the program if it takes longer than one class period to play?

- Does the software suit my teaching style?

11. How do I find the time to find software, learn how to use it, and become comfortable with the technology?

When you bring home a pile of papers to grade every night, advise the student council, and make yourself available to students, it's extremely difficult to find time to sleep, let alone take on additional burdens. We don't know where the time comes from, but when you hit one of those slow points, take advantage of it. You'll find that after the initial investment, it will get easier. Team up with other teachers to share your

responsibilities. The National Council for the Social Studies has a special interest group devoted solely to computer use. You can contact NCSS at the following address:

NCSS, 3501 Newark St., N.W., Washington, DC 20016.

12. Where do I find the space for this equipment?

If your conditions are as cramped as some we've seen, space could be a problem. Keeping the computer on a cart allows you to move the machine out of the way when not in use. Treat it like a film projector.

13. Where can I get the resources for the hardware and software I want?

The following are some suggestions for obtaining resources:

- Local school system. If your school is making an effort to bring computers into the classrooms, make sure social studies is not overlooked. Plan ahead to get what you want. Discretionary funds are places to look to fulfill your immediate needs.

- Parent groups. Some schools have received funding from parent groups who are interested in ensuring that their children are exposed to computers in school. Check with the P.T.A. or other local interest groups.

- High tech companies. Computer companies have donated equipment to some schools as part of public relations or research efforts. Contact one of these manufacturers with a proposal.

- Government grants. To obtain information on grants, check for materials in your local library or contact local, state, and national agencies.

- Universities. If you are near a major university, you might be able to become involved with a research project or outreach program that includes some equipment for the school.

Tom Snyder Productions

The Best in Social Studies Software *and* Support.

We are determined to bring you the best educational software, and also to provide you with the kind of support, ideas, and news that will make using computers in your classroom easier. Join the thousands of teachers who are already receiving our quarterly **Educators' Newsletter.** Send us your name and address to begin your free subscription. Please feel free to call us with any questions or ideas you may have. (617) 876-4433

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