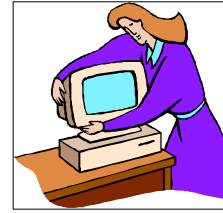


Using Internet Academic “Drill & Practice” Activities to Build Fragile Student Skills: Guidelines



Students who have weak academic skills usually need lots of opportunities to practice and strengthen these skills. Often, though, these struggling learners find “drill and practice” activities to be tedious and avoid them whenever possible.

Teachers, too, may have difficulty keeping up with the demand for motivating practice materials that fall at the correct instructional level for the more delayed students in their classroom.

Fortunately, some interesting web sites are gradually emerging on the Internet that contain interactive educational content. These sites offer students a chance to practice specific academic skills. Well-designed web sites can offer a number of advantages for students who need to review academic fundamentals:

- Because the sites are usually interactive, students can select review activities that are at their own instructional level and work along at their own pace.
- Many of the on-line review activities follow a game-like format that students find motivating.
- Children may gain opportunities to practice academic skills because web review activities are available in any setting that has an Internet connection (e.g., at home, at the public library).
- Activities on the Internet demand no teacher preparation, a real plus for busy educators.

As Internet-connected computers become more widely available in schools, in homes, and at community locations, intervention teams now have the ability to incorporate web-based activities for academic review into student academic intervention plans. Because the Internet is a new frontier as a source of intervention resources, each school must come up with appropriate guidelines to help educators to take advantage of them. Here are some general suggestions that should be considered:

1. **Evaluate Internet sites to judge their usefulness as destinations for the student to drill and practice skills.** Before recommending that a student try out an Internet site, the teacher should always visit the site to evaluate its potential as a teaching tool. If the site’s purpose is to give students a chance to practice skills, the teacher should critically evaluate the educational activity on the site using three general questions:

- *Does the activity allow the student to practice skills at their instructional level?* A site that contains only items that are too easy or too difficult for the child is obviously not a good match.
- *Does the activity provide a complete 'learn-unit' to maximize instructional potential?* Learning happens best when the child (a) is given an opportunity to give an academic response (e.g., an unsolved math problem appears on the computer screen), (b) gives that response (e.g., types an answer to the math problem into the answer-blank on the computer screen), and (c) gets immediate feedback (e.g., praise for a correct response, corrective feedback for an incorrect response).
- *Does the student have lots of opportunities to respond (practice skills)?* A well-designed Internet educational activity will have the student spend most of his or her time actually practicing an academic skill. Remember, when the student has more frequent opportunities to respond, that student will learn more quickly.

- 2. Be sure that the student has a basic understanding of how to navigate the Internet.** Students must know the basic conventions for getting around in cyberspace before they can be efficient, confident travelers on the Internet. The teacher will want to train the student in fundamental Internet skills such as opening and using a web browser and bookmarking sites for repeat visits. Students should also know the district's Internet usage policy and understand the negative consequences that they might face if they knowingly visit web sites that contain content inappropriate for them to view.
- 3. Ensure that the student is supervised by adults or older peers while on the Internet.** Even the most trustworthy student requires some degree of supervision when engaged in educational activities on the Internet. Without occasional prompting or redirection, a student may select practice items that are too easy, work at too leisurely a pace, or wander off their target site entirely to roam the uncharted wilds of the Internet. Some strategies to provide students with some level of supervision may include enlisting parents to oversee a child's on-line Internet practice at home, recruiting responsible older peers to serve as Internet 'tutors' to younger children, or having students access the Internet only when in a classroom or computer lab staffed by an adult.
- 4. Develop an Internet drill-&-practice "itinerary" for the student and consider strategies to document the student's Internet activities.** A student may find on-line educational review activities to be more fun and rewarding than paper-and-pencil tasks. However, these activities will pay off in improved student educational skills only if they are selected to match the student's specific areas of academic delay. To make sure that the student gets the most benefit out of on-line time, teachers can create a student web 'itinerary'. For example, a teacher may write out an itinerary for a student to visit www.funbrain.com three times per week, select the advanced multiplication problems under "Math Baseball, and

play the game for 20 minutes per night at home. When adults other than the teacher are supervising the child on the web, they can check the itinerary to be sure that the student is doing teacher-assigned tasks. Parents can also use the itinerary to supervise the child's on-line academic practice at home.

Don't forget, too, that students often become more motivated when they track their performance—even on the Internet. For example, a student who regularly plays Math Baseball (www.funbrain.com) might be encouraged to chart the number of minutes each day that they spend playing the game, record the scores of each game, and note the types and level of difficulty for the math problems that they select.

5. **Encourage the student to become his or her own 'learning manager,' exploring the Internet to find innovative resources that help them to practice and extend academic skills.** The guidelines provided here are a start in harnessing on-line academic resources to be incorporated into student intervention plans.

A more significant and lasting goal, though, is to empower students themselves to travel the Internet to discover other interactive applications or information to help them with their own learning. For example, a student who is just beginning a foreign language may enjoy visiting www.babelfish.com, a site that allows users to input text in one language and then translates that text into another language. A teacher may find the site to provide a useful jumping-off point for discussion about the difficulties of language translating.

Or students might be given the assignment of visiting www.puzzlemaker.school.discovery.com to generate a crossword puzzle for their classmates that contains key terms and definitions that will appear on an upcoming test. As a final example, a student unsure of how to solve a math problem might discover MathNerds (www.mathnerds.com), a web site that enlists college math majors to answer common mathematics questions. By assembling their own preferred 'short list' of on-line academic resources, students can become active managers, rather than passive recipients, of learning