Using Technology to Achieve Rigor and Relevance

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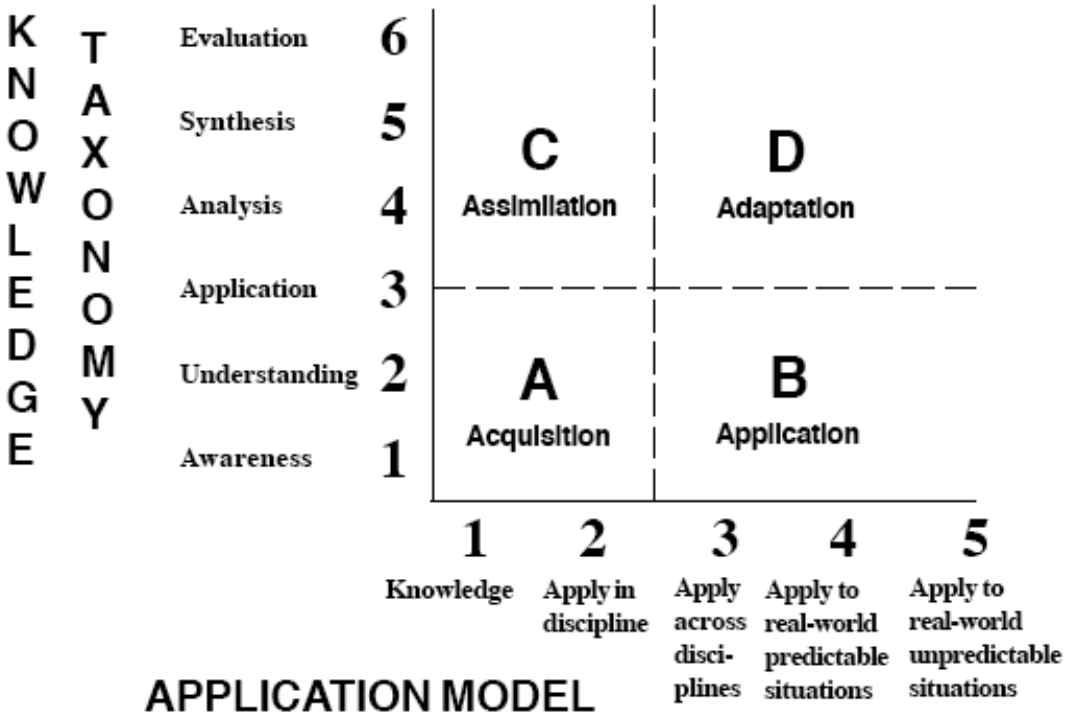
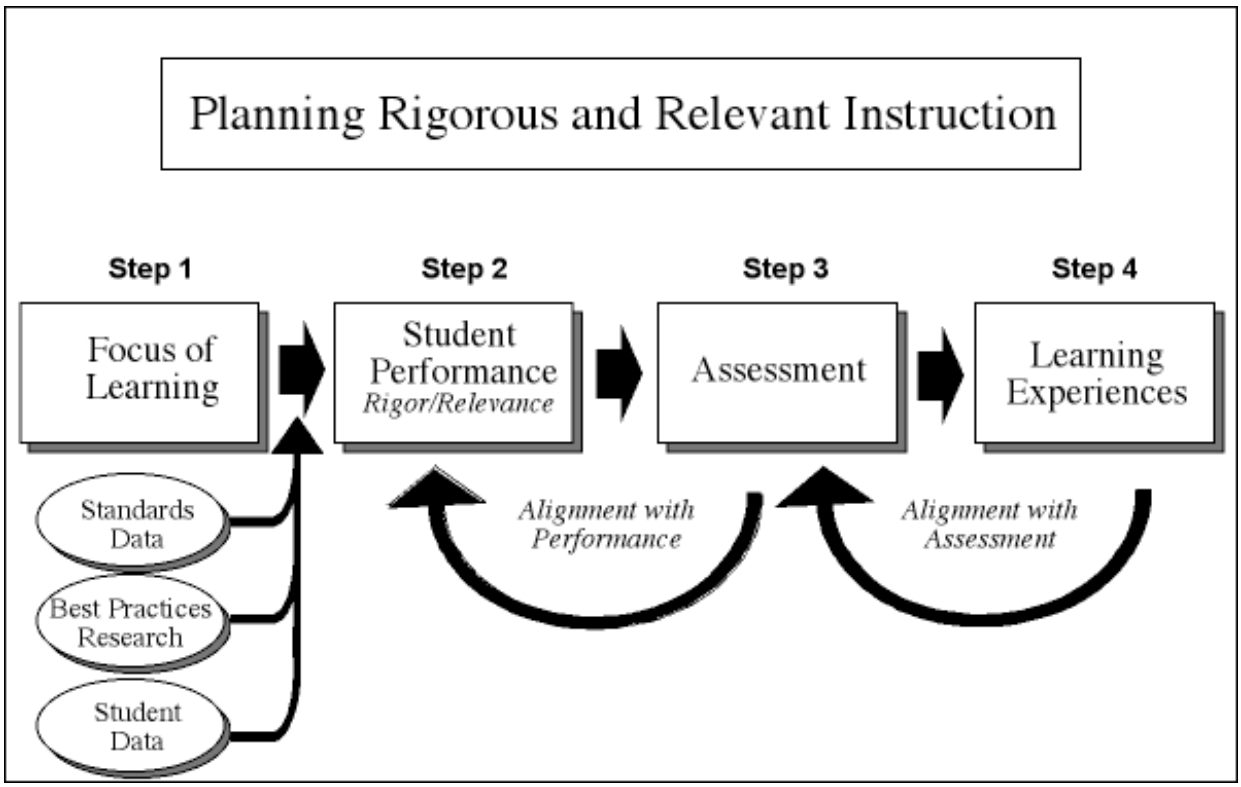
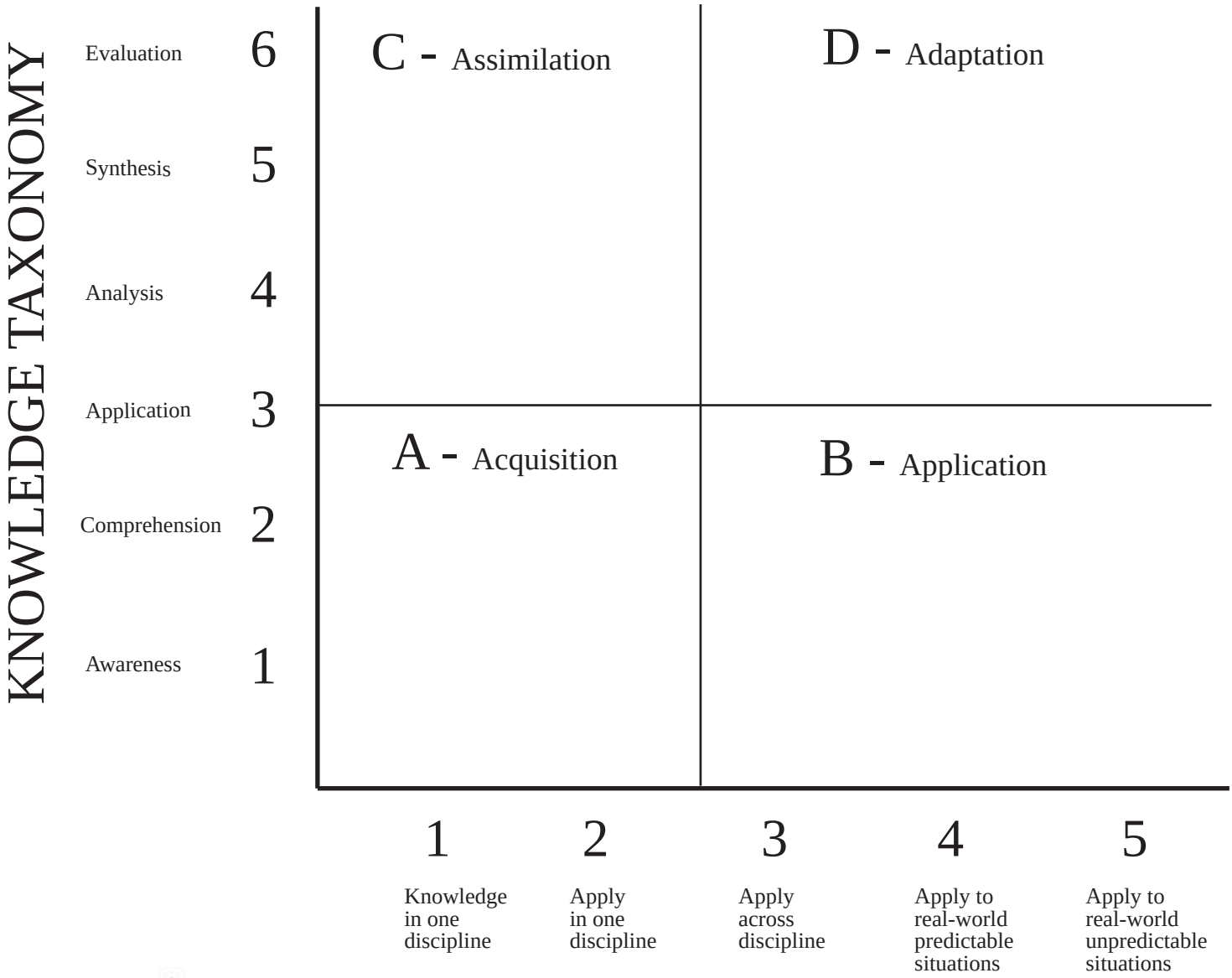
Rigor/Relevance Framework





Rigor/Relevance Framework

Worksheet



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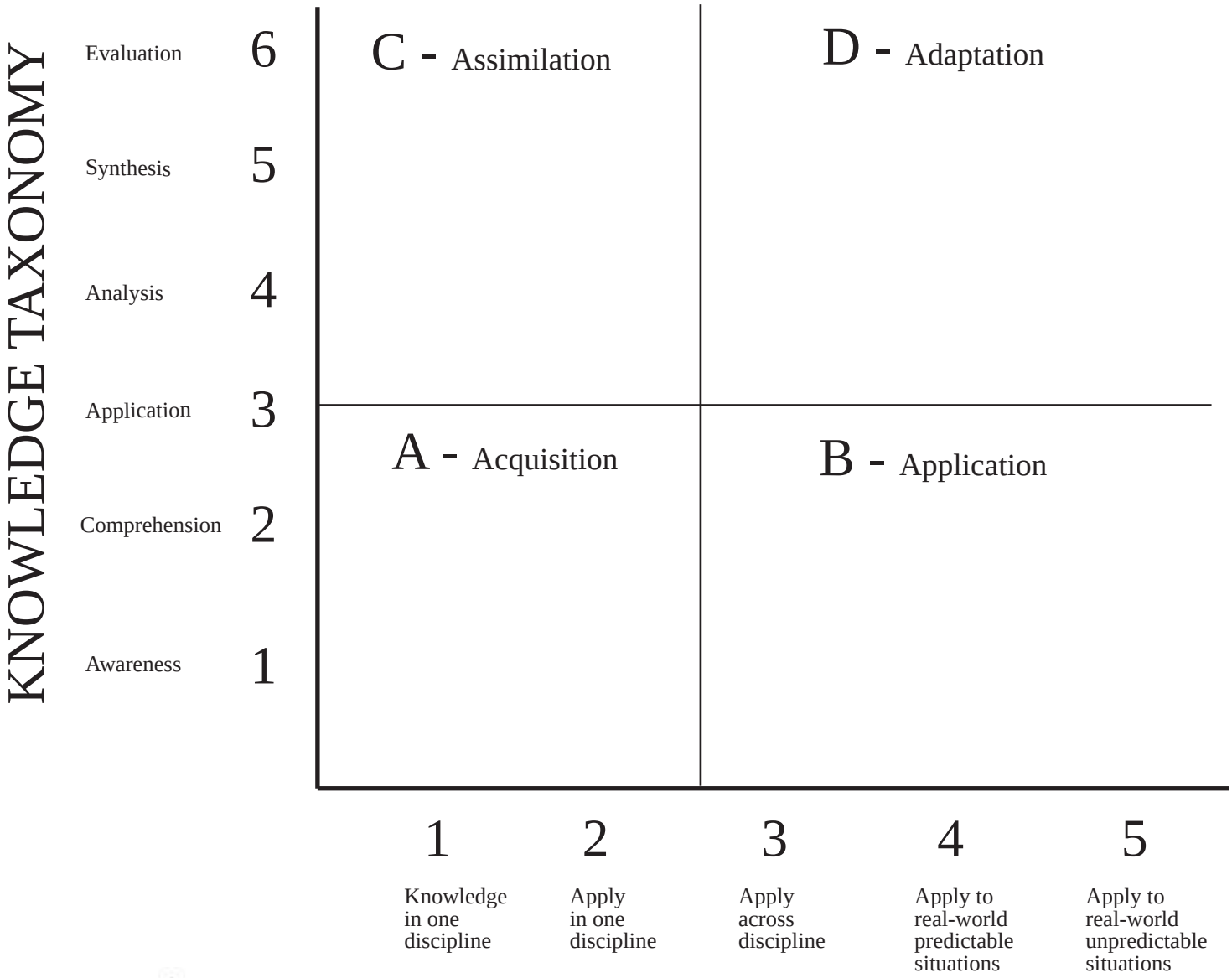

Instructional Strategies and Educational Technology

Strategy	Application of Technology
Brainstorming	• Students can use computers to record and display brainstormed ideas. • Word processing software is excellent for editing, sorting and organizing brainstormed lists.
Cooperative Learning	• Distribute discussion topics to students via computer. • Students can research topics via the Internet and software resources. • Students can record reflections on computer. • Students can illustrate group findings with computer graphic displays.
Demonstration	• Use computer demonstration software packages to show complex tasks that are too expensive or dangerous to do live. • Students can review previous demonstrations from computer files or the Internet.
Guided Practice	• Students can use drill and practice software to reinforce fundamental skills. • Provide enhancing activities for students who learn at a faster pace.
Inquiry	• Pose initial questions and intriguing investigations on computer. • Students can collaborate with other students and experts off-site via the Internet. • Students can record reflections on computer.
Instructional Technology	• Technology must be used to give students direct experience learning with multi-media.
Lecture	• Use computer visuals to illustrate lectures.
Memorization	• Students can practice mnemonics on computer.
Note-taking/ Graphic Organizers	• Students can use word processing software for taking notes. • Make reference notes available for students on the Internet. • Graphic organizing software is excellent for creating graphical displays of information. • Distribute note-taking templates to students via networks.

Instructional Strategies and Educational Technology, continued

Strategy	Application of Technology
Presentations/ Exhibitions	• Students can use multimedia software to create presentations. • Students can use the Internet and reference software for researching topics.
Problem-based Learning	• Pose problems on computers. • Students can use computer networks to research problems. • Students can use computer software for reference of decisions and expert systems. • Students can create and display solutions with visual software.
Project Design	• Students can create project designs and model solutions on computers. • Students can use calculators and computers for calculating design data. • Students can use robots to conduct design tests. • Students can use the Internet to collect information on design needs.
Research	• Students can use the Internet and reference software to research topics.
Simulation/Role-playing	• Students can use computer simulations. • Students can use education learning games for individual instruction.
Socratic Seminar	• Students can engage in discussion with students at remote locations through the Internet. • Students can use the Internet to research questions posed.
Teacher Questions	• Use software for brainstorming and keeping track of effective classroom questions.
Work-based Learning	• Students can use computer software as it is used in the workplace.

Ten Essential Quickies

The following are ten essential web sites for teachers. If you don't have much time, these resources will provide you with the most useful information on education and integration of technology quickly.

Electronic Newsletters
Keep current with a weekly email, review of new and interesting web resources.
Secondary teachers use **Scout Report <http://scout.wisc.edu/>**
Elementary Teachers use **Eduhound <http://www.eduhound.com/**>

EdGate <http://www.edgate.com>
An extensive portal with education links, has the best database for locating resources by state standards. Also has simple but effective tool (SchoolNotes) for publishing education web sites (no software or training required). Cost for Personal Edition is $17 per year.

Marco Polo< http://www.marcopolo-education.org/>
Quickly find good links in core academic subject areas in a reviewed portal site developed in cooperation with six national professional organizations.

Kathy Schrock's Guide for Educators <http://school.discovery.com/schrockguide/>
One of the oldest and most extensive lists of education resources now sponsored by Discovery School.

Smart Brief< http://www.smartbrief.com/ascd/>
Stay current with national education news with this freee easy to read daily email from ASCD.

Rubistar < http://rubistar.4teachers.org>
Create a good student performance rubric in less than 10 minutes with the free templates and online tools at Rubistar.

RefDesk <http://www.refdesk.com>
Find facts fast with extensive quick links to hundreds search tools, dictionaries, encyclopedias, directories and other information sites.

Technology and Learning Magazine <http://techlearning.com/>
This is one of the best education technology journals with excellent reviews of software and technology. They provide a free monthly newsletter with links, and teaching tips.

LearningElectric.com <http://www.learningelectric.com/>
LearnElectric provides school districts with free, online tutorial videos clips. They provide a library of easy to use online training videos for multiple software applications including, Word, Excel, PowerPoint, Publisher, FrontPage, KidPix, Inspiration, Easy Grade Pro and HTML.

Google <http://www.google.com>
The best search engine on the Internet. But don't go to Google, bring it to you, Windows users add the Google Toolbar < http://toolbar.google.com/> to your browser and search anytime. Mac users have this feature built into the new browser Safari. Also use the domain search < http://www.google.com/advanced_search?hl=en> to explore in depth any web site that doesn't have a search tool.

Technology Rubric

Support

LEADERSHIP

Advocacy

- Does my school and District advocate for technology resources that encourage me to use technology in exemplary ways?

Access

- Does my school and District make technology accessible and available?

Resources

- Does my school and District allocate hardware and peripherals that encourage students to extend their knowledge and use of technology?

Content

- Does my school and District provide software that supports classroom curriculum?

INSTRUCTIONAL SUPPORT

Support

- Does the instructional support in the district offer me relevant large group and/or individual training, as well as follow up classroom support?

TECHNICAL SUPPORT

Hardware/Software Capabilities

- Does Technical Support Services provide hardware and software that support curriculum?

Technical Issues

- Does Technical Support Services provide me with multiple ways to find solutions to my technical problems (HELP desk, technical assistance housed in building, etc.)?

Network Infrastructure

- Does Technical Support Services provide me with the network reliability and speed needed to support classroom technology?

Evaluation

Technology Skills

- Do I offer strategies for evaluating mastery of technology skills by my students?

Types of Assessment

- Do I offer my students a variety of types of assessments (multiple choice, performance tasks, etc.) and use results to provide feedback?

Quality of Assessment

- Do I provide clear expectations of assessment to my students?
- Do my assessments reflect my objectives and standards?
- Do assessments require students to reflect on their performance?

Instructional Planning

Technology Standards

- Do I consider technology standards when planning?

Management

- Do I allow easy access to technology resources?

Real World Application

- Do I plan activities that are relevant and useful in life?

Use of Technology Resources

- Do I use, model, teach the use of, and make available to my students, technology resources and tools (software, peripherals, etc) to meet my curriculum needs?

Differentiation

- Do my plans show that I select and use a variety of technology tools and resources that match the interest, ability levels, and learning styles of my students?

Integration

- Do my plans include activities that integrate multiple curriculum areas?
- Do my plans use technology as a tool for students to appropriately and expediently complete activities?

Learning Environment

Student Centered

- Does observation show that I allow, plan, and encourage activities to be self-directed by students?

Collaboration

- Does observation show that I allow, plan for, and encourage my students to initiate collaboration?

Use of Resources

- Does observation show that students always select the appropriate technology tool for the task?

Technology Exploration

- Does observation show that the creative use of technology enables students to exceed minimum expectations and criteria?

Critical Thinking

- Does observation show students using a variety of problem solving models and higher level thinking skills to complete tasks?