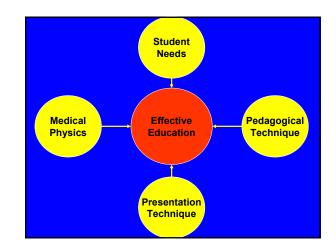
WEB Based Education Current & Future Resources

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Today's Session

- GD Frey
- Introduction and Educational Resources
- M Martin
 - The AAPM Virtual Library
- M Yester
 - On-line Continuing Education
- P Sprawls
 - Radiology Resident Education: Resources for Integrated Learning

Resources

- Pedagogical Resources
- Search Engines & Databases
- Organizational Resources

Pedagogical Resources

- Teaching
- Physics Teaching
- Presenting
- Graphical Materials

Teaching

- Students are used to modern pedagogical methods
- The traditional lecture has been shown to be less effective than other methods
- The medical physics teacher needs to integrate modern methods into educating students

150 Teaching Methods

Lecture by teacher (and what else can you do!) Class discussion conducted by teacher (and what else!) Recitation oral questions by teacher answered orally by students (then

what!) Discussion groups conducted by selected student chairpersons (yes, and

what else!) Lecture-demonstration by teacher (and then what 145 other techniques!) Lecture-demonstration by another instructor(s) from a special field (guest speaker) Presentation by a panel of instructors or students

Presentations by student panels from the class: class invited to participate Student reports by individuals Student-group reports by committees from the class Debate (informal) on current issues by students from class Class discussions conducted by a student or student committee



http://www.fctel.uncc.edu/services/resources.html



Physics Teaching

- Physics Teaching is a specialized skill
- Even though much of what is taught in medical physics is taught at the descriptive level physics teaching techniques are important



Resources for physics teachers

• Example – How to use java to write physics simulations

http://psrc.aapt.org/

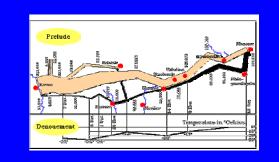


Resources for teachers

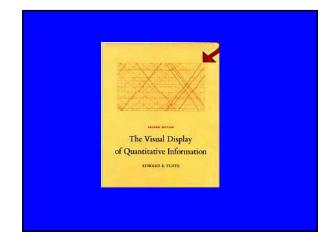
http://home.messiah.edu/~barrett/phy_ind.htm

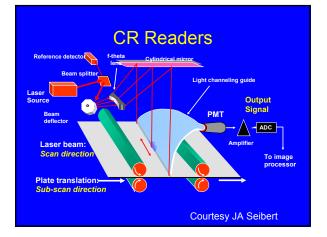
Graphical Techniques

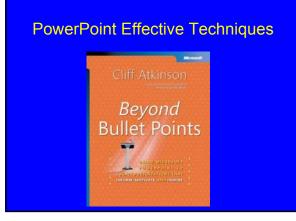
- Images are usually a more powerful way to present ideas than the words
- Students are "image oriented"
- Images help show relations that are difficult to present verbally



1869 chart by Minard







Medical Physics Materials

- Databases and Search Engines
- Organizations

Databases & Search Engines

- Entrez PubMed
- Lexus-Nexus Academic
- Google Scholar
- Google
- Aunt Minnie

Entrez PubMed

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PubMed

- The National Library of Medicine Publication Database (Medline)
- PubMed is the search engine







Principles of MRI: Image Formation

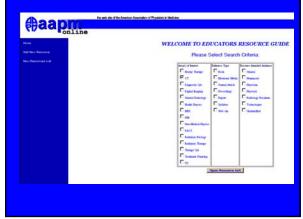
Allen W. Song Brain Imaging and Analysis Center Duke University







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