


Inspiring Mature Minds: Adult Education in IP&C

Barbara Catt, Sunnybrook Health Sciences Centre, Toronto
A Webber Training Teleclass

Inspiring Mature Minds: Adult Education in IP&C

Barbara Catt
Infection Prevention and Control
Sunnybrook Health Sciences Centre

Hosted by Martin Kiernan
martin@webbertraining.com

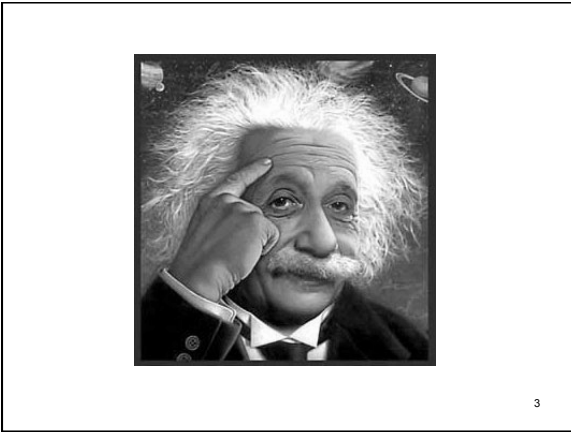


www.webbertraining.com September 15, 2012

Disclosure

- I have no conflicts of interest in relation to this presentation
- Presentation is intended as a guide for those individuals who wish to teach adult learners within healthcare

2



Objectives


- Understand the theory
 - Assumptions about adult learners
 - Learning
 - teaching principles and teaching strategies for adult learners
- Identify methods for teaching adult learners IPAC education, as it pertains a minute, an hour and a day
- Provide tips for improving your presentation and retention of the information

5

Professional Ethic

- “When a difficult time occurs one needs to discover what can be learned from the situation and then seize the opportunity to make the indicated changes.”
(Barry, C. 2004)

“Every job is a self portrait of the person who does it. Autograph your work with excellence.”



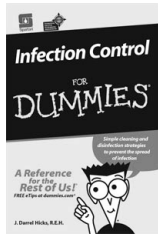
6

Hosted by Martin Kiernan martin@webbertraining.com
www.webbertraining.com

Inspiring Mature Minds: Adult Education in IP&C
Barbara Catt, Sunnybrook Health Sciences Centre, Toronto
A Webber Training Teleclass

Teaching IPAC

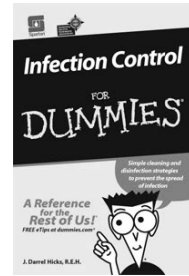
- “What . . .
- am I trying to teach?”
 - is the learners’ needs and past experiences?”
 - approaches are needed?”
 - material or resources are available?”



7

Teaching IPAC

- Is this a good topic for self-directed learning?
- Who is my audience?
- Are they motivated to
- How long do I have?



8

Putting Theory into Practice

“There is nothing so practical as a good theory.”

9

Putting Theory into Practice

“If you use a tool without knowing the theory, the tool may work in one situation and not in another, and you'll never know why it failed.”

=Value of knowing the theory

Peter Senge (5th Discipline)

10

What is learning?

- Learning (*n*) is acquiring new knowledge, behaviours, skills, values, preferences or understanding, and may involve synthesizing different types of information

11

Learning

- Need to acknowledge multiple perspectives as a result of religion, gender, ethnicity, class, age, sexuality, and/or physical abilities



12

Inspiring Mature Minds: Adult Education in IP&C
Barbara Catt, Sunnybrook Health Sciences Centre, Toronto
A Webber Training Teleclass

Learning

- Learning may occur as part of personal development, education, or training



13

Education vs Training

- **Education:**
 - measured by tenure
 - e.g. spend a day in a seminar/4 yrs in college
 - Giving out information or communication to the trainees

14

Education vs Training

- **Training: (doing)**
 - measured by what you can do when you have completed it
 - About practice and building skills

15

Assumptions of Adult Learners

1. Autonomous and self-directed: need to be free and to direct themselves
2. Have an accumulation of life experiences and knowledge
3. Relevancy-oriented: they must see a reason for learning something (e.g. applicable to their work)

16

Assumptions of Adult Learners

4. Practical: focusing on the aspects of a lesson most useful to them in their work Readiness to learn
5. Goal-oriented: upon enrolling in a course, they usually know what goal they want to attain
6. Respectful: instructors must acknowledge the wealth of experiences that adult participants bring to the class

17

Kolb, D: Learning Styles

- 2 preference dimensions
 - Perception dimension
 - Processing dimension
 - Giving to 4 styles of learning

18

Inspiring Mature Minds: Adult Education in IP&C
Barbara Catt, Sunnybrook Health Sciences Centre, Toronto
A Webber Training Teleclass

Kolb, D: Learning Styles

Perception Dimension

- Concrete Experimenter
 - feeling, accepting, receptive, guide them, demos; (Feeler)
- Abstract Conceptualizer
 - analytical, writes the theories and models, likes to see the big picture, loves Total Quality Management, likes things logical, evaluative (Thinker)

19

Kolb, D: Learning Styles

Processing Dimension

- Active Experimenter
 - high risk taker, “see me do one, learn on the job, do the skill and do it *quickly*”- type person. (Doer)
- Reflective Observationist
 - read the manual several times, self learning packages, sit back, look and think about “it” (Watcher)

20

How Does One Facilitate Learning?

1. Involve learners

- Mutual plan for the methods and content
- Identified a need
- Meaningful material is better remembered
- Develop own learning objectives

21

Tell me and I'll forget.

Show me and I may remember.

Involve me and I'll understand.

Chinese Proverb

22

How Does One Facilitate Learning?

2. Provide an effective environment

- comfortable expressing ideas
- Mutual respect, friendly, supportive

23

Flexible Learning Environment

- Self directed learning
 - paper copy and/or on-line training allows the most flexibility for the learner



24

Hosted by Martin Kiernan martin@webbertraining.com
www.webbertraining.com

Inspiring Mature Minds: Adult Education in IP&C

Barbara Catt, Sunnybrook Health Sciences Centre, Toronto
A Webber Training Teleclass

Flexible Learning Environment



e-Learning

- Web-based curriculum just as effective as traditional curriculum
- Compliments traditional teaching methods
- Caution for simplicity: boredom
- Difficult for complex procedures (IV)
 - Preferred combination
- *iPod Project* in Australia (2008)

25

How Does One Facilitate Learning?

3. Ensure that there is sound factual information
 - Identify and explore resources
4. Document the rationale for the change
5. Evaluate learning

26

Other Principles to Facilitate Learning

- Satisfaction from learning increases drive to learn more
- Moderate anxiety due to lack of knowledge stimulates the need to learn
- Learning is best accomplished by doing, imitation and frequent feedback

27

Feedback is a Gift

- Don't give feedback because you want to "get something off of your chest"
- Will not fix what you believe is wrong with another person
- Once feedback is given, the receiver decides the value of it and the impact on their behavior.

28

Feedback

Praise is like champagne. . .
It should be served while still bubbling



29

Effective Teaching Strategies

1. Discovery
2. Direct Instruction
3. Discussion
4. Cooperative learning

Can incorporate self-directed learning into each (on-line education, role and/or game playing, mock events, picture boards)

30

Inspiring Mature Minds: Adult Education in IP&C

Barbara Catt, Sunnybrook Health Sciences Centre, Toronto
A Webber Training Teleclass

1. Discovery

- Active involvement with concepts, principles, experiments, problem solving
- Helps develop critical thinking skills

Examples

- Experiment which of two dressings stay intact; introduce CHG bathing ICU to see decreases in HAIs

31

2. Direct Instruction

- Review prerequisites to the session
- Learner objectives
- Present new material and solicit responses
- Independent practice (assignments)
- Assess performance (e.g., pretest, post test)
- Provide effective feedback
 - Example: core competency training on RP/AP

32

3. Discussion

- For subjective and controversial topics or difficult concepts (triggers opinion, judgment, assumptions)
- May be a concern with learners' attitudes and beliefs
 - e.g. discuss peer to peer learning, professional values
- Prerequisite ➡ adequate knowledge base

33

3. Discussion

- Allows for role-modeling
- Helps the learner see that there may be more than one answer or more than one way to learn
 - Example: "Give it a Shot, or Not- Mandatory Vaccinations Debate" (CHICA Conference, Toronto, 2011)

34

4. Cooperative Learning

- Combination of direct instruction and discovery
- Project-based or active learning
- Small groups, help each other learn
- Still has individual accountability
- Facilitative teaching is more pronounced
- Problem based learning

Ref: Slavin, RE. (2000) Educational Psychology, Theory and Practice. Allyn & Bacon Canada

35

Problem Based Learning (PBL)

- a student-centered instructional strategy in which students collaboratively solve problems and reflect on their experiences
 - Influences behavior - learners are engaged in a group process
 - Facilitates expression of ideas, collaboration, integration of past and present ideology, reflection of learning.

36

Inspiring Mature Minds: Adult Education in IP&C

Barbara Catt, Sunnybrook Health Sciences Centre, Toronto
A Webber Training Teleclass

Your Role as a Facilitator

- Utilized when presentations become interactive (cooperative learning/PBL)
- Set the agenda, coach participants, guide the pacing
 - NB when providing training and education
 - Example:
 - Recertification of core competency and use of assimilation room & case scenario

37

PBL: Working Groups

- Alternate leader role
 - Keep on track
- Circulate, feedback
- Specific purpose
- Specific audience
- Problem solve
- 4-6 people
- 5 min. for the brainstorming
- Relate information to learners' experience
- Recorder, secretary, timer


38

Professional Ethic

- “When group members must publicly commit themselves, it's more effective in changing individual attitudes and practices.”

• (Ref: Slavin RE. 2000 p 243)

“Every job is a self portrait of the person who does it. Autograph your work with excellence.”



39

Bloom's Taxonomy

- Benjamin Bloom
- Refers to the classification of the different objectives that educators set for students (learning objectives)
 - First presented in 1956

40

RECALL: Objectives

- Understand the theory
 - Assumptions about adult learners
 - Learning
 - teaching principles and teaching strategies for adult learners
- Review methods for teaching adult learners IPAC education, as it pertains a minute, an hour and a day
- Provide tips for improving your presentation and retention of the information

41

Bloom's Taxonomy

Educational objectives are divided into 3 “domains”

- Cognitive phase
- Psychomotor phase
- Affective phase

Higher levels of learning is dependent on having attained prerequisite knowledge and skills at lower levels

42

Inspiring Mature Minds: Adult Education in IP&C
Barbara Catt, Sunnybrook Health Sciences Centre, Toronto
A Webber Training Teleclass

**Bloom's Taxonomy:
Cognitive Phase**

- Knowledge (mental skills)
- Applies concepts and processes on the information by recall
- Analyzing and critical thinking

E.g. recites a policy; knows how to perform a C-diff clean
 – words may include describe or discuss

43

**Bloom's Taxonomy:
Psychomotor Phase**

- Skills (manual or physical)
- Applies the overall knowledge and theory by demonstrating the correct skills and technique

E.g. drives a car; donning and removal of PPE
 – words may include demonstrate or show

44

**Bloom's Taxonomy:
Affective Phase**

- Attitude (feelings, values or emotion)
- Applies the manner that emphasizes a feeling tone, an emotion, or a degree of acceptance or rejection
 – appreciation, enthusiasm, motivation


E.g. Knows the differences with the management of MRSA within the community vs the hospital setting
 • words may include understands, identifies

45

**Learning as a graded
Sequence**

What you

- MUST know
- SHOULD know
- COULD know (nice to know)



46

Teacher Methods and Learner Retention

Ref: Hinson Pat L. APIC Text 1996, 30-3

Method	Average Retention Rate (%)
Lecture	5
Reading	10
Audiovisual	20
Demonstration	30
Discussion group	50
Practice by doing	75
Teaching others	95

48

What is the research saying?

- Methodologies for teaching adult learners
 - Survey SAYS: simulation, case studies, PBL/group work, mixture of teach methods
 - These work BEST!
- Opportunities to maximize “on the spot” education
 - There is NONE!

48


Inspiring Mature Minds: Adult Education in IP&C

Barbara Catt, Sunnybrook Health Sciences Centre, Toronto
A Webber Training Teleclass

Teaching Others 95% Retention

- Wound care
- IV site procedures
- Hand hygiene
- Clean and sterile technique
- IC and the patient
- Preventing outbreaks

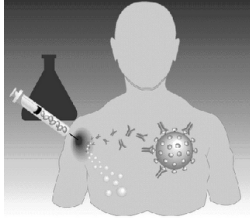
Improves critical thinking skills



49


PHOTOS

- Attract attention
- Story boards



50

Learning and Visual Effects




Is this blood still infectious?

51

Pictures Tell Many Different Stories

Apply Theory to Practice

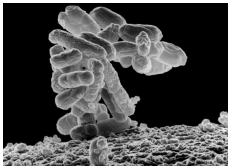
- Particles of 1 micron or less adhere to surfaces by molecular adhesion
 - Scrubbing is generally the only way to remove them.
- How much Microbiology do they know?
- How strong are their assessment skills?



52

Pictures and Associations

- Nearly 1 million skin squames containing viable organisms are shed daily from normal skin
 - Just Clean Your Hands
 - <http://www.oahpp.ca/services/jcyh/hospitals-education-training.html>



Visible particles only 10% of indoor air

53

Common Items and Their Respective Particle Sizes

- Pollens -10 to 1000 microns
- Human Hair - 40 to 300 microns
- Beach Sand- 100 to 2000 microns
- Tobacco Smoke - 0.01 to 1 micron
 - 1 millimeter = 0.001 meter
 - 1micron = 0.000001 meter(1 millionth of a meter)

54

Inspiring Mature Minds: Adult Education in IP&C

Barbara Catt, Sunnybrook Health Sciences Centre, Toronto
A Webber Training Teleclass

VISIBLE WITH THE NAKED EYE	VISIBLE WITH A MICROSCOPE			VISIBLE WITH AN ELECTRON MICROSCOPE		
	10	1.0	0.5	0.1	0.01	0.001
	BACTERIA					
PLANT SPORES						VIRUSES
						TOBACCO SMOKE
						COOKING SMOKE/GREASE
HUMAN HAIR						PET DANDER
						HOUSEHOLD DUST
						FERTILIZER
						INSECTICIDE DUST
						COAL DUST

55



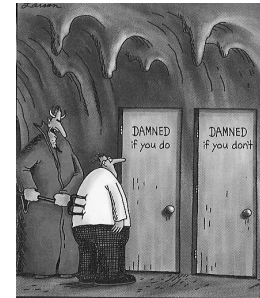
Common Items and Their Respective Particle Sizes

- Bacteria range 0.5-5.0 μm
 - E.g. Anthrax spore 6 μm , TB droplet 2-4 μm length, 0.2-0.5 μm width, staphylococci and e.coli 2 μm
- Viruses usually too small to be seen with the light microscope, Electron microscopy
 - E.g. influenza 0.1 μm , SARS-CoV 0.1 μm , Ebola 0.2 μm
- A submicron filtration mask:
 - Meets specifications and filtration level >95% for particles 0.1 to 0.3 μm (micron).

57

Getting Your Point Across

- Concentrate less on what you want to say and more on what you want them to hear



"C'mon, c'mon—it's either one or the other."
REF: GARY LARSON 58

Know How to Give a Message

and

Know How to Handle a Message Well

59



"Well, how do you handle it when a messenger shows up bearing bad news?"

Hosted by Martin Kiernan martin@webbertraining.com
www.webbertraining.com

Inspiring Mature Minds: Adult Education in IP&C

Barbara Catt, Sunnybrook Health Sciences Centre, Toronto
A Webber Training Teleclass

Story Telling

- Captures learner's attention
- Stimulates thought
- Alters perception, enhances memory
- Provides a link between theory and practice
- Evokes emotions and values
- Audience co-participates

61

Let me tell you a true story..

- Outbreak of sternal surgical site infections due to *Pseudomonas aeruginosa* traced to a scrub nurse with onychomycosis
 - Multiple cosmetic products from the nurse's home yielded the identical *P. aeruginosa* strain.
 - Outbreak of surgical site infections due to *P. aeruginosa* was caused by wnd contamination from the thumbnail of this nurse, despite her appropriate use of latex surgical gloves.

Ref: McNeil SA Clin Infect Dis. 2001 Aug 1;33(3):317-23. Epub 2001 Jul 5.

62

Impact of Story Telling

NICU outbreak of *P. aeruginosa* in 2000

- 46 neonates affected (10%); **35% died**
- Cared by nurses with same strain, one with artificial nails, another with long natural nails

NICU outbreak with *K. pneumoniae* in 2004

- 19 neonates affected (**45%**)
- Cared by a nurse with artificial nails with the same strain

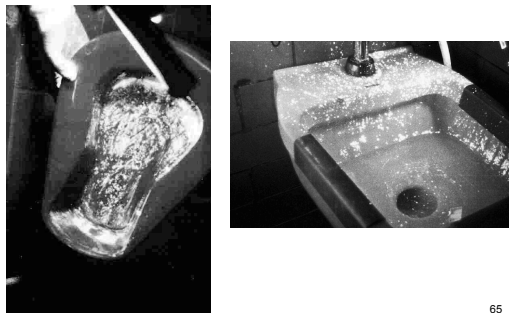
Molenaar ICHÉ 2000; Gupta ICHÉ 2004; Passaro JID 175:992-5; Parry CID 2001; NEJM 323:1814, 1990

63



64

Photos, Case Studies, Simulation Lab: Increase Retention



65

Photos and Videos for Teaching: Coughing and Where Flu Germs can Land

Entertaining 2 minute clip



❖ http://www.youtube.com/watch?v=-K_boO2ocel&feature=fvw

66

Hosted by Martin Kiernan martin@webbertraining.com
www.webbertraining.com

Inspiring Mature Minds: Adult Education in IP&C
Barbara Catt, Sunnybrook Health Sciences Centre, Toronto
A Webber Training Teleclass

**Coughing and Where
Flu Germs can Land**

Talking points

- Risk of air-borne dissemination of microbes
- Consequences include surface contamination which may spread infection
- Prevention Strategies such as coughing in your sleeve

67

TIPS For Teaching-Learning

- Welcome
- Self, topic, objectives
- Icebreaker, +/- humour, story
- Presentation -opening, middle, ending (Be CREATIVE)
 - Demonstrations if time permits!
 - Story boards
 - AV Aids
- Closing, Evaluation, Follow up

68

Guidelines During Teaching

- Be yourself
- Review your material
- Maintain contact (physical and psychological)
- Pace, tone and vocal variety, body language

69

Guidelines During Teaching (con't)

- How does training “fit” the big picture or link to experience?
 - e.g., a practice changed and the outbreak was stopped
- Avoid Ums, Ahs, OKs, crutch words

70

Preparation Check List

- Topic and objective(s) clear?
- Keep to my time limit?
- Consulted enough sources?
- Materials and teaching aids ready?

71

Preparation Check List

- Enough time for group presentations or role play?
- Can I get hold of material for back up?
- Is my plan flexible?
- Can I give /receive effective feedback?

72

Inspiring Mature Minds: Adult Education in IP&C

Barbara Catt, Sunnybrook Health Sciences Centre, Toronto
A Webber Training Teleclass

Presenting Your Material

- Pictures speaks a thousand words
- A message sent is not always received or heard the same way you hear it
- Body language can be misinterpreted



73

PowerPoint TIPS

- Max 3-4 bullets/slide; 6 words/line
- Effective with graphics (colors/font/backgrounds)
- Video clips/sounds, music (hyperlinks)
- Careful!

74

PowerPoint TIPS

- Search for Google images
- KISS principle
- Good teaching is about connecting materials, experiences, ideas

75

How Will You Teach....

- The science behind PPE - their use and misuse?
- Environmental contamination?
- When science is lacking what do the "experts" say?
- How to don and doff a mask or gown properly?

Recognize what is relevant and what is not

76

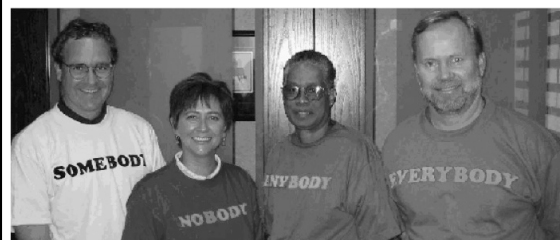
Who Will You Teach To?

Know your audience

- Traditionalist (1900-1945)
 - Build a legacy
- Baby boomers (1944-1964)
 - Build a stellar career; tell me what I need to know
- Generation Xers (1965-1980)
 - Build a portable career; show me how to do it
- Millennials (1981-1999)= Generation Y; Boomer Kids
 - Build parallel careers; why do I need to know this?

77

Teaching Whose Job Is It?



78

Hosted by Martin Kiernan martin@webbertraining.com
www.webbertraining.com

Inspiring Mature Minds: Adult Education in IP&C
Barbara Catt, Sunnybrook Health Sciences Centre, Toronto
A Webber Training Teleclass

Teaching Whose Job It Is

- Everyone owns a little bit of the problem
- Everyone has a role
- Incorporate patient safety and worker safety first
- First, do no harm . . .


79

Team Work Lessons

- There is no limit to what can be done--If it doesn't matter who gets credit

There are two ways of spreading light: ***To be the candle or the mirror that reflects it***

Edith Wharton Vesalius in Zante




80


Sharing What You Learn

Remember the 3 touch rule:

1. Circulate the hot bulletins before filing for future use
2. Highlight key items
3. As a team we are as strong as our weakest link



31



There are no shortcuts to any place worth going.

—Beverly Sills

82

Budget For Education!

Use this phrase to appeal for training and education:

If you think education is expensive, what's the price of ignorance?

83

Use Humour and Laughter

- H- Help yourself see the lighter side
- U- Unite your ideas by sharing them with others
- M- Move ahead quickly (the past is over)
- O - Outreach for support
- U – Unleash your creativity
- R - Risk is easier when you can laugh and learn from the failures

84

Inspiring Mature Minds: Adult Education in IP&C
Barbara Catt, Sunnybrook Health Sciences Centre, Toronto
A Webber Training Teleclass

Use Laughter and Humour

- L - Look at every opportunity to teach
- A - Accept responsibility for being post+
- U - Uniqueness can be fun
- G - Give more than you take
- H - Humour yourself and others
- T - Teach others to enjoy the moment
- E - Each person is valued
- R - Reach for those in need of help

85

Careful use of Humour in Medicine



“The patient in the next bed is highly infectious. Thank God for these curtains.”

“Education is when you read the fine print.....

Experience is what you get when you don't!”

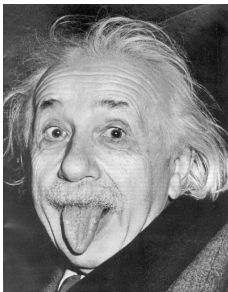
. . . . Pete Seeger

87

Change does not take place until the learning has occurred.



88



Thanks for listening !

89

References

- Association for Professionals in Infection Control and Epidemiology-APIC. (1996). *APIC text of infection control and epidemiology*. Association for Professionals in Infection Control and Epidemiology Inc., Washington DC: APIC Inc.
- Association for Professionals in Infection Control and Epidemiology-APIC. (2009). *APIC text of infection control and epidemiology*. Association for Professionals in Infection Control and Epidemiology Inc., Washington DC.
- Bankert, E.G. & Kozel, V.V. (2005). Transforming pedagogy in nursing education: A caring learning environment for adult learners. *Nursing Education Perspective*, 28, 227-9.
- Barber, K. (1994). Expanding your teaching repertoire: an interactive inservice model. *J Nurs Staff Dev Jan-Feb*, 10, 1,12-15.
- Bensusan, Guy. (1998). *Beyond Teaching: 12 Pillars for Managing Learning*. Dr. Guy Bensusan. at <http://jan.ucc.nau.edu/~hgb/beyond.html>.
- Brockett, Ralph G., Hiemstra, Roger. (1991). *Self-direction in adult learning: perspectives on theory, research, and practice*. London. Routledge
- Busl, L.D. (1981). The teacher as manager of the learning environment. *J Nurs Educ May*, 20, 5, 42-7.

90

Inspiring Mature Minds: Adult Education in IP&C

Barbara Catt, Sunnybrook Health Sciences Centre, Toronto
A Webber Training Teleclass

References

- Campbell, A. SARS Commission Summary Report <http://www.onla.on.ca/library/repository/mon/16000/268478.pdf>
- Cromer, A., Hutsell, S., Latham, S., Bryant, K., Wacker, B., Smith, S., (2004). Impact of implanting a method of feedback and accountability related to contact precautions. *American Journal of Infection Control*. 32, 8, 451-55.
- Criss, E. A. (2002). Teach with style. Integrate individual learning styles with teaching methods to enhance student learning. *J Emerg Med Serv JEMS*. Sep; 27, 9, 60-2, 64-6, 68-9.
- Dobbin, K., R. (2001). Applying learning theories to develop teaching strategies for the critical care nurse. Don't limit yourself to the formal classroom lecture. *Crit Care Nurs Clin North Am Mar*; 13, 1, 1-11.
- Farquharson, Andy. (1995). *Teaching in practice: how professionals can work effectively with clients, patients, and colleagues*. Jossey-Bass Publishers.
- Hayes, Elisabeth, Flannery, Daniele D., with Brooks, Ann K., Tisdell, Elizabeth J., and Hugo, Jane M. (2000). *Women as learners: the significance of gender in adult learning*. Jossey-Bass Publishers.
- Henry, J. (1997) A teaching strategy to enhance adult learning. *The Journal of Continuing Education in Nursing*. 28, 5, 231

91

References

- Hohler, S.E., (2003). Creating an environment conducive to adult learning. *Association of Operating Room Nurses Journal*. 77, 833-5.
- hooks, bell. (1989). *Talking back, thinking feminist, thinking black*. South End Press. Boston. MA.
- Hudson L (Ed). (1993). *I make a difference. Making the transition from clinician to educator*. Delmar Publishers Inc. New York.
- Institute for Healthcare Improvement. Improving hand hygiene at <http://www.IHI.org> Accessed Feb 2007
- Kirkpatrick, D.L. (1994). *Evaluating Training Programs: The Four Levels*. San Francisco, CA: Berrett-Koehler.
- Jarvis, P. (1995). *Adult and continuing education, theory and practice*. (2nd Ed.) London. Routledge Falmer.
- Janing, J. (2001). Linking teaching approaches and learning styles: how can it help students? *Emerg Med Serv*. Sep; 30, 9, 77-80.
- Klane, J. (2004) Really effective training. *Occupational Health and Safety*. Sep; 73, 9, 190, 192-5.

92

References

- Knowles, Malcolm. (1984). *Androgogy in action. applying principles of adult education*. Jossey-Bass Pub.
- Knowles, M. S., Holton, E.F. & Swanson, R.A. (1998). *The adult learner. The definitive classic in adult education and human resources development*. Woburn MA. Butterworth-Heinemann.
- Koeckeritz, J., Malkiewicz, J., Henderson, A. (2002). The seven principles of good practice: applications for online education in nursing. *Nurse Educator*. 27, 6, 283-287
- Koenig, J. M., Zorn, C., R. (2002). Using storytelling as an approach to teaching and learning with diverse students. *J Nurs Educ*. Sep; 41, 9, 393-99.
- Kolb, D. A. (1999). *Learning style inventory*. Experience based Learning Systems Inc. Hay/McBer. Boston.
- Krietzer, E.K., Larson, E.L., (1998). Behavioral interventions to improve infection control practices. *American Journal of Infection Control* 26, 245-53.
- Lengrand, P. (1986). *Areas of learning basic to lifelong education*. UNESCO Institute for Education ; Pergamon Press.
- Lieb, S. (1991) Principles of adult learning. South Mountain Community College. <http://www.adulted.com>
- Long, Douglas G. (1990). *Learner managed learning: the key to lifelong learning and development*. Kogan. St. Martin's Press.

93

References

- Mah, M.W., Stott, M., Montgomery, M., & Bush, C. (2005). On jumping outside the box: infection control education for the 21st century. *Canadian Journal of Infection Control*. 20, 80-85.
- Marquis, B. L., Huston, C. J. (2000). *Leadership roles and management functions in nursing: theory and application*. (3rd Ed.). Philadelphia. Lippincott.
- Moran, Joseph J. (1997). *Assessing adult learning: a guide for practitioners*. Krieger Pub. Co.
- Pinsky, L. E., Wipf, J. E. (2000). A picture is worth a thousand words: practical use of videotape in teaching. *J Gen Intern Med*. Nov; 15, 11, 805-10.
- Regan, J. (2003) Motivating students to self directed learning. *Nurse Educator*. 23, 8, 593-99.
- Resler, M.M. (1983). Teaching strategies that promote adherence. *Nurs Clin North Am*. Dec; 18, 4, 799-811.
- Rosemary S. Caffarella Rosemary S. Caffarella. (1994). *Planning programs for Adult Learners: A Practical Guide for Educators, Trainers and Staff Developers*. Jossey-Bass Publishers, San Francisco.
- Simpson, R.L. (2003). Welcome to the virtual classroom: how to teach technology is transforming nursing education in the 21st century. *Nursing Admin Quarterly*. 27, 1, 83-86.

94

References

- Slavin, R. E. (2000). *Educational Psychology. Theory and Practice*. Allyn & Bacon Canada.
- Snell, L., Tallett, S., Haist, S., Hays, R., Norcini, J., et al. (2000). A review of the evaluation of clinical teaching: new perspectives and challenges *Med Educ*. Oct. 34, 10, 862-7.
- Sprengel, A., D., (1994). Learning can be fun with gaming. *J Nurse Educ*. Apr; 33, 4, 151-2.
- Stewart, P., B., Deck, M. L., (2001). Dealing with resistant learners. educator strategies. *Crit Care Nurs Clin North Am Mar*; 13, 1, 137-46.
- Tough, A., M., (1979). The adult learning projects. A fresh approach to theory and practice in adult learning. *Ontario institute for studies in education*. (2ndEd). Toronto. 45-62.
- Vaughn, L., Gonzalez, Del Rey, J., Baker, R. (2001). Microburst Teaching and Learning. *Med Teach* Jan; 23, 1, 39-43.
- Vella, Jane Kathryn. (1994). *Learning to listen, learning to teach: the power of dialogue in educating adults*. Jossey-Bass Publishers.
- Waldron, Mark W., Moore, George A., B. (1991). *Helping adults learn: course planning for adult learners*. Toronto. Thompson Educational Pub., ISBN: 1550770314.
- Zemke, Ron, Zemke Susan. (1984). *Innovation Abstracts* Vol VI, No 8, March 9, 1984 Online from: <http://www.hcc.hawaii.edu/intranet/committees/FacDevCom/>

95



- 27 September **Emerging Carbapenem Resistance: What Do We Do Now?**
Speaker: Prof. Andrew Simor, University of Toronto
- 02 October (FREE ... WHO Teleclass – Europe) **The Role of Education in Low and Middle Income Countries**
Speaker: Prof. Shaheen Mehtar, Stellenbosch University, South Africa
Sponsored by WHO First Global Patient Safety Challenge – Clean Care is Safer Care
- 11 October **Evaluating Chlorhexidine Baths for the Prevention of Central Line Associated Bloodstream Infections (CLABSIs)**
Speaker: Prof. Silvia Munoz-Price, University of Miami Miller School of Medicine
Sponsored by Sage Products Inc (www.sageproducts.com)
- 18 October (South Pacific Teleclass) **Meningococcal Disease and the New Zealand Experience – Where to From Here**
Speaker: Dr. Tony Walls, University of Otago, New Zealand

www.webbertraining.com/schedulepl.php

Hosted by Martin Kiernan martin@webbertraining.com
www.webbertraining.com