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7 Principles for AOSpine Education

Educational Methods

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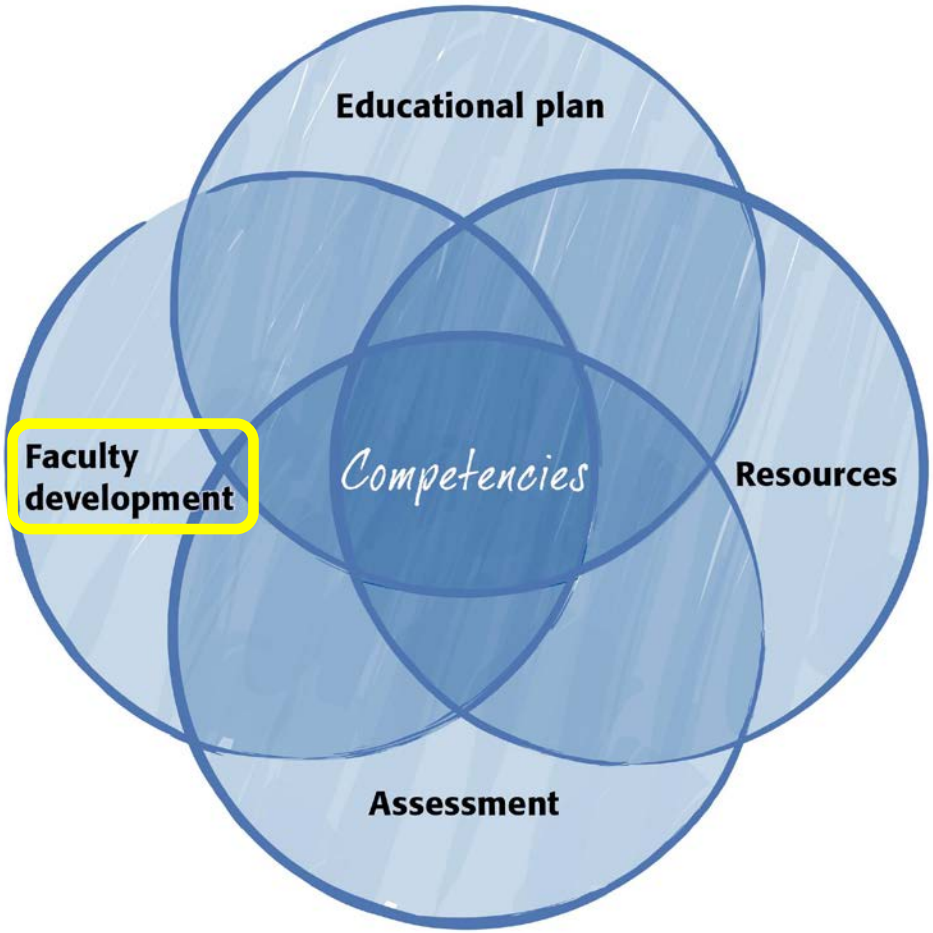
May 2014

INTRODUCTION

Quality Education



7 AO Educational Principles

Based on needs 1

Motivates to learn 2

Relevant 3

Interactive 4

Provides feedback 5

Promotes reflection 6

Leads to verifiable outcomes 7

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II. EDUCATIONAL METHODS

4. INTERACTIVE

5. PROVIDES FEEDBACK

II. EDUCATIONAL METHODS

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Theoretical Concepts

- Relationship between involvement in learning and motivation
- Interaction between learners and content; faculty; and, colleagues

Northern VA (June,2011)

'Traveling to other cultures today is more difficult than it used to be, but it still affects me in the same way--it forces a different view of the world that challenges all of our daily assumptions...' jg

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Interactive Lecture Event # 1

In your region/country, what new format or method would most improve the quality of AOSpine courses and why?

- Think about your answer for 1 minute
- Each person share their answer with the small group
- Select one answer to share with the large group

Desire involvement in the learning process

- For learning to occur, learner must be:
  - Alert
  - Attentive
  - Engaged in the process

- How to assure engagement?
  - Involve learner in tasks that require application of knowledge to patient care

Process information through multiple sensory channels with Different cognitive styles

- Two continua of approaches:
  - Conceptual vs. **problem specific**
  - **Deliberative** vs. experiential
- Styles related to senses: auditory, tactile, visual
- Learning style inventories (LSI)

Value of Learner Interaction

"Tell me and I shall forget,
show me and I may remember,
involve me and I will understand…"

Chinese Proverb

Learning by Doing

"He has to "see on his own behalf…
the relation between means and methods employed and results achieved…
Nobody else can see for him and he can't see just by being told…"

The Theory of Inquiry

John Dewey, 1938

Impact of Formal CME Dave Davis, MD et al, JAMA, 1999

- Traditional, formal CME (*lectures*) failed to achieve success in changing performance or health care outcomes

- Those using interactive techniques (*case discussion, role-playing, hands-on practice sessions)* were more effective

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WHAT IS EXPECTED OF FACULTY?

INCREASING INTERACTIVITY

WHY INCREASE LEARNER INTERACTIVITY?

ENHANCE LEARNING AND APPLICATION TO PRACTICE

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Interact—WITH WHOM AND WHAT?

Content

Faculty

Colleagues

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Interactive Lecture Event # 2

The most important reason you might want to increase learner interaction in your AOSpine courses is:

A. Keeps everyone attending to the subject
B. Forces the learner to apply the concepts to their reality
C. Increases learner retention of subject
D. All of the above
E. None of the above

- Read the question
- Write on a piece of paper your answer
- Share your answer when asked

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Small Group Discussion

OOPS!

Don’t forget to provide feedback—give correct answer and rationale

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Discussion Groups

- Actively involve learners
- Enhance understanding and knowledge
- Can be effective in changing attitudes
- May require facilitator
- Better in smaller groups

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Panel Discussions

Panels

- Present various sides of issues
- May influence attitudes
- Limited learner involvement
- Allow for Q&A
- Faculty react to other faculty
- SUMMARIZE PANEL DISCUSSION

Pig Surgery—The Ultimate Simulation

Case Studies:

«Can learners apply what they have learned?»

- Link case(s) to major learning objectives, not obscure facts
- Use one long case throughout activity
- Use multiple cases within the activity
- Require learners to answer application of knowledge questions about case(s), not memorization questions about facts
- Remain flexible on future content depending on learner answers

Uses of ARS

- Pre-post test of knowledge
- Pre-post attitude inventory
- Learner profiles
- Case studies
- Inserted questions
- Comparison data
- Examples

Inserted Questions:

«Are learners focused and do they already know this?»

- Relate questions to major learning objectives
- Use questions when knowledge is critical to proceeding with new content
- Provide immediate feedback to learners so they learn what they don’t know
- Insert at random times to keep attention of learners

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Interactive Lecture Event # 3

What is the BEST educational method used in AOSpine courses now and why?

- Think about your answer for 1 minute
- Share your answer with one table mate
- Be ready to share your answer with the large group

Implications for Faculty/Course Chairs

- Use interactive techniques: case studies; panel discussions; small group problem solving; interactive lectures
- Don’t rely solely on didactic lectures
- Give learners information on what they don’t know
- Use small group interaction if the goal is to change physician performance

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4. Interactive

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Theoretical Concepts

- Presentation, example, practice and feedback
- Helps learners understand knowledge, competence and performance gaps
- Increases motivation to learn

Undertake mechanisms for obtaining *feedback on performance* and *reinforcement of learning*

- Success in achieving objectives facilitates further learning
- Require performance and give timely feedback
- Performance measures need to be objective, valid, reliable and *important*
- Major learning objectives need to be reinforced over time

Practice

- Supplement lecture and discussions with opportunities for practice of concept or skill
- Expert observation
- Case discussion
- Use of ARS
- Simulations

Feedback

- Enhances learning
- Difference between what learner is doing and what expected to do
- Use of performance criteria
- Coaching
- Focus on how learner performed and how to improve
- Positive feedback—learner motivation

Opportunities for practice and feedback

- Goal not retention of facts, but application of what was learned into practice setting
- Planners need to create authentic settings that engage learner in complex, realistic and “messy” clinical problems
- Actively involve learners in own learning
- Provide opportunities to interact with colleagues
- Provide learners with feedback on performance

Feedback Model for Faculty Performance

- First, ask faculty— **“What went well?”**
- Now, give faculty feedback– **“This is what I think went very well”**
- Then, ask faculty– **“What could be improved next time?”**
- Then, give final feedback-- **“This is what I think could be improved next time and how”**
- **Faculty states (or writes down) up to three things that he/she will change next time**

Implications for Faculty/Course Chairs

- Use pre-tests and/or self-assessments
- Start discussion of content with case studies—lets learners know what they don’t know
- Give feedback to learners on learning, competence and performance
- Get feedback from learners on faculty performance
- Give correct answers and rationale when using cases via ARS

References

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