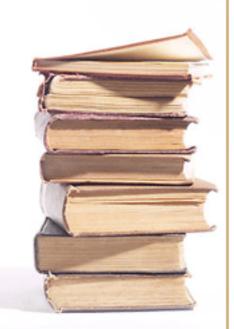
The Circle of Scholarship

Keith Whittington



Icebreaker

- Find someone you don't know
- One person interview the other person
- Switch roles
- Find another group
- Take turns introducing your partner to the group

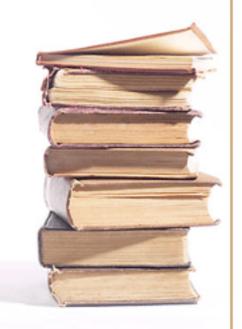


Exercise

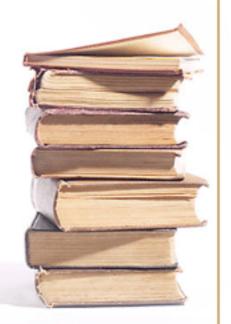
- Write one answer on paper
- Pass to next person in group
- Continue passing until all ideas are exhausted



What are the potential benefits of the scholarship of pedagogy at RIT?



What are the potential detriments of the scholarship of pedagogy at RIT?



Background

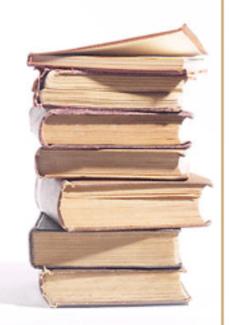
23 Years in Industry

 10 years as Adjunct Professor at Community College

As the Years Went On ...

Loved teaching

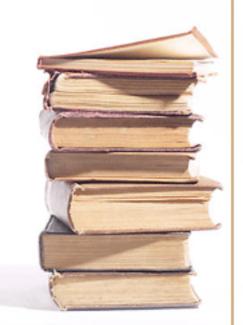
• Disliked "Corporate America"



Took a Risk

- Changed Careers
- Moved to another state

- Left friends and family
- Three young children



My Feelings

 Seize opportunities when they arise

Don't be afraid to take risks

• If it feels right, do it

 Otherwise you'll always wonder: "What if ..."

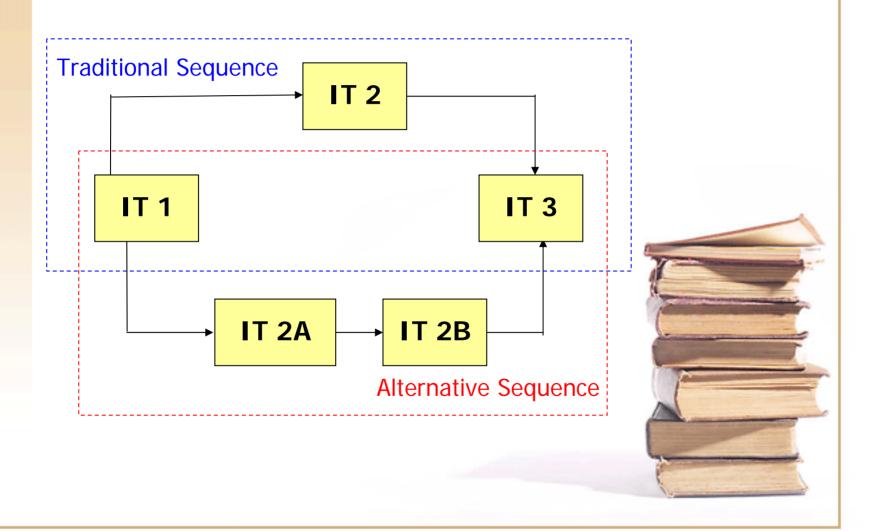


Opportunity

Chosen to develop a two-course sequence

 Targeted for under-prepared students

Alternative Prog. Sequence

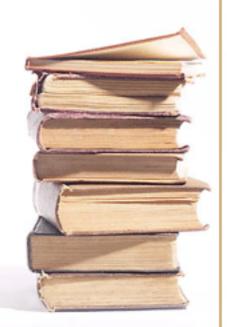


"Chance" Conversation

Research

 Determined to help the at-risk students

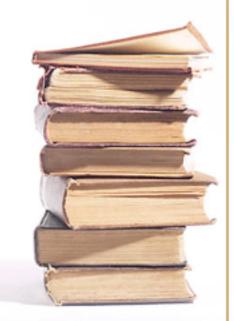
Searched the educational databases



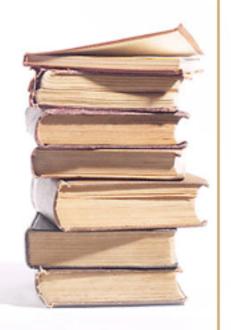
My Path of Discovery

Constructivism

- Cooperative learning
- Student-centered learning
- Active learning

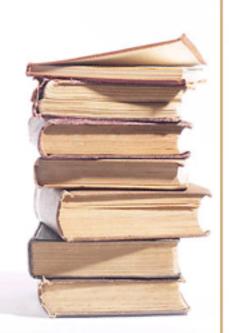


What is Active Learning?



Exercise

- 1st person writes sentence
- Next person adds to or corrects statement(s)
- Continue until all members have answered
- Discuss the team's answer
- Prepare to explain answer

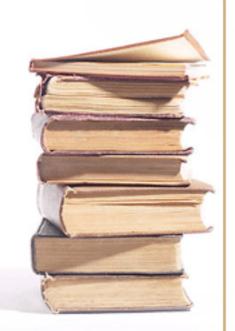


Application of Research

Lots of AL articles

 Very few targeted for intro programming courses

Had to develop my own activities

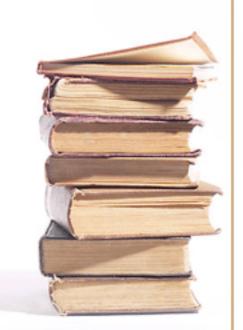


Course Design

Changed the way the course was taught

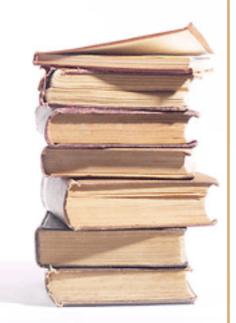
Rewrote all the materials

 Created AL activities for every topic



New Focus

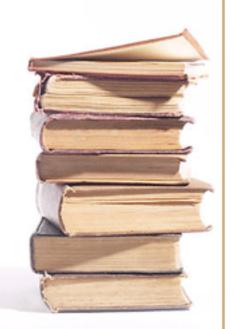
- Traditional Focus
 - Covering as many constructs as possible
- New Focus
 - Using constructs to develop conceptual knowledge



Active Learning

- Jumped in with both feet
- Some colleagues warned me not to take the risk

• It just felt right



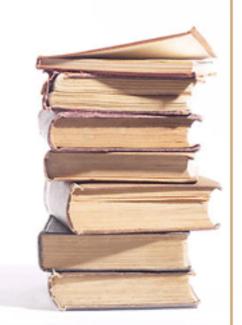
Risks

• Is approach legitimate

Student evaluations

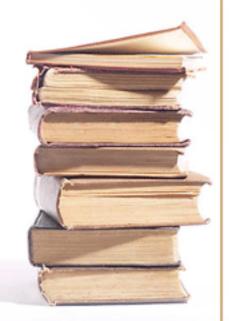
Promotion and tenure

Colleagues opinions



Course Results

- Increased retention by 9%
- Increased A,B,C grades by 14%
- All numbers are statistically significant

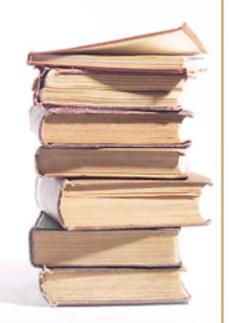


Personal Rewards

Students loved the course

Exceptional student evaluations

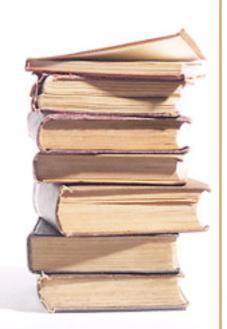
Noisy classroom



New Teaching Metaphor

Coach

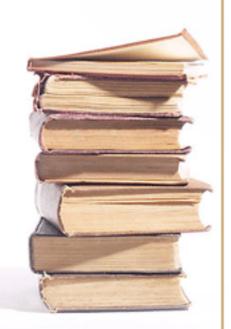
 No longer "Sage on the Stage"



Dissemination

- 2003 SIGITE
- 2003 FITL

 Cited in President Simone's "Category of One" white paper



The Next Year ...

Faculty Learning Community

Study future success of IT 2A&B students

Active learning research

Teach next group in IT 2A&B

The First Circle was Complete

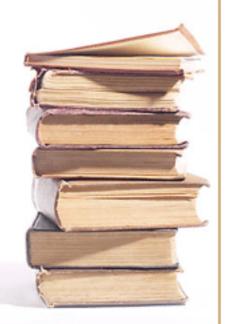
- Researched teaching techniques
- Classroom experiment
- Dissemination of results

• Further research in AL



FLC Requirements

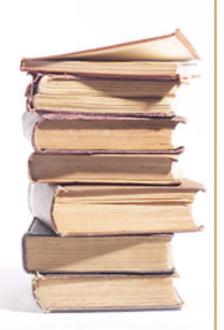
- Design a classroom experiment
- Attend the Lilly conference
- Readings from educational literature



Lilly Conference

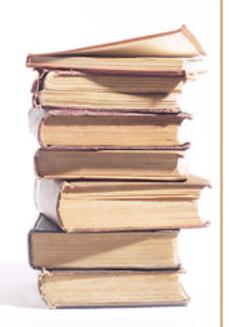
 Met the leaders of the active learning movement

 Learned new techniques to apply in my classroom



Dissemination

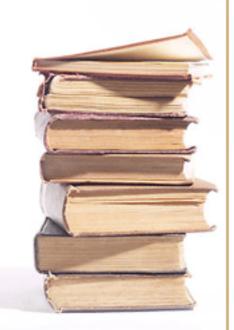
- 2004 FLC Poster Session
- 2004 CCSCNE
- 2004 FITL
- 2004 Geneseo Conference



PLIG Grant

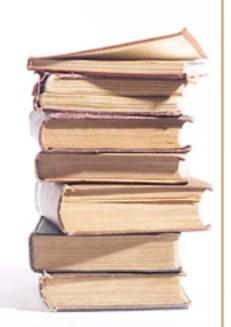
 Cohort students based on previous prog. experience

Based on IT 2A & B results



Another Circle Completed

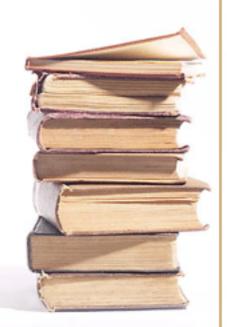
- IT 2A & B experiment
- Results analyzed
- PLIG grant received
- Cohorting implemented



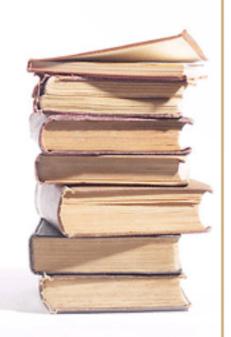
Preliminary Cohorting Results

 Benefited students with the most and no experience

 Modifying the cohorting scheme this year based on the results



Another Circle Begins ...



2004 CCSCNE Conference

 Attended a session given by the NSF UG Education Director

Guided me to the correct grant

- NSF CCLI Grant

Approved this year

Another Circle Begins ...



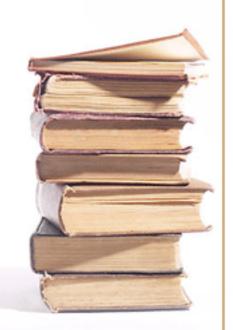
Further Dissemination

• 2004 Lilly Conference Presenter

• 2004 SIGITE

• 2005 CCSCNE

• 2005 Frontiers in Education



Advice

 Research how others are teaching

Adapt their discoveries to your classroom

Disseminate the results

Make contacts

Scholarship Benefits

 Ultimately it is the students that have benefited from my scholarship

Which is why I teach

