Active Learning IGL (Inquiry Guided Learning)

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Guiding principle for teachers and students: “The road to success is always under construction.”—Lily Tomlin.

Why Active Learning/IGL?: A few basic principles

1. Active learning is more effective than passive learning.
   What I hear, I forget; what I see, I remember; what I do, I understand. --Chinese proverb
   Let the main object of this, our Didactic, be as follows: To seek and find a method by which teachers may teach less, but learners learn more. --John Amos Comenius
   As these quotations suggest, teachers have long known what researchers have only recently confirmed about the value of active learning: Students do learn more and better by becoming actively involved.

2. Learners need feedback on their learning, early and often, to learn well; to become independent, they need to learn how to give themselves feedback.
   Supposing is good, but finding out is better. --Mark Twain

3. To be most effective, teachers need to balance levels of intellectual challenge and instructional support. . . . The weaker or smaller the student's foundation (preparation) in the subject, the stronger and larger the instructional scaffolding (structure and support) that is required. This is one of the many reasons that teaching a first-year course requires a different approach than teaching a third-year course in the same discipline.

4. Interaction between teachers and learners is one of the most powerful factors in promoting learning; interaction among learners is another. As with activity, it isn't interaction in and of itself that promotes academic learning, it's structured interaction focused on achieving meaningful, shared learning tasks.


Active Learning/IGL Advantages to Students

1. Participate “Don’t just read about it, do it!”
2. Collaboration not competition; participate in a learning community
3. Improved communication, not regurgitation
4. Varied activities for varied learning styles: Variety is the spice of life
5. Practice, repeat, permission to fail
6. Perform realistic disciplinary activities
7. Demonstrate creativity, in inquiry and critical thinking
8. Continuous engagement– students can’t tune/drop out
9. Clarity, predictability of assignments and assessments
Active Learning/IGL Advantages to Instructors

1. Synergy between research and teaching
2. Better knowledge of students
3. Modeling “doing what we like to do,” including learning
4. Less is more: greater depth while retaining breadth
5. Uncovering subtleties, concepts, major issues rather than superficial coverage
6. Distributed responsibilities, including peer evaluation
7. Bite-sized assessments—less time grading
8. Opportunities for publication in SoTL, Scholarship of Teaching and Learning

Education is not preparation for life; education is life itself.” ~John Dewey

Range of Sample Teaching Activities and Methods

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Guidelines for Easing toward Active Learning/IGL

“A teacher is one who makes himself progressively unnecessary.” ~ Thomas Carruthers

1. Promote Active Learning. Why are many students disengaged? We often give them no reason for engagement. “The art of teaching is the art of assisting discovery.” ~Mark Van Doren, American poet
2. Embrace Student Centeredness: Easier for You; Better for Them! Students, not the instructor, are the focus of classroom activities. They are co-learners and co-teachers.
3. Model being a learner—bring your research into the classroom; involve students, if possible; acknowledge openly and proudly when they teach you something; model inquiry not omniscience. “Who dares to teach must never cease to learn.” ~ John Cotton Dana
4. Challenge students to uncover knowledge, not just to memorize facts. “I’ve learned that teaching children to think and wonder is more important than learning a list of facts.” ~Nancy Garrelts, teacher from Duluth, GA
5. Be incremental- “Rome wasn't built in a day.” I taught my first class, as a graduate student, in 1972. I’m still learning, changing, exploring—you don’t have to revise the entire course of tomorrow today.
6. Incorporate easy active learning IGL tactics [see section below].
7. Allow students to fail. “Mistakes themselves are often the best teachers of all.” -- James Anthony Froude
8. Have fun! If a teaching innovation fails, no one dies! Regroup—try again.

**Alternative Strategies and Instructional Methods**

[Doing web searches for any of terms will turn up examples and explanations.]

- Inquiry Guided Learning
- Problem-Based Learning (aka Cases)
- Uncoverage vs coverage
- Active Learning
- Critical Thinking
- Service learning
- Internet and hybrid Courses
- Online discussions
- Pre- and post-tests
- Oral history
- Self-assessments and quizzes
- Peer assessments
- Monitor larger project in stages, with check points and drafts

- Informal as well as formal writing and speaking
- Brainstorm
- Role playing
- Historical debates
- Thought Questions
- Mini-lectures
- Journaling
- Concept mapping
- Minute paper
- Think/Pair/Share/Repair
- Groups/Collaboration
- Informal writing

**Increasing Teaching Transparency: Why Use Rubrics?**

1. Coming clean: Too much important stuff takes place in a black box. Professors perform magic tricks that dazzle students with "woo-woo-woo" and arcane knowledge. However, what about showing them where the magic comes from? What about learning how to evaluate good magic from bad? Rubrics make clear how a discipline or a specific instructor evaluates the quality and presentation of analysis and information.

2. Fairness: Is it fair to judge students according to often arcane standards without telling them what those standards are? I don't think so.

3. Consistency: Related to fairness is evaluation consistency--applying the same criteria to all student work. Without rubrics, how can we fairly, accurately, and consistently judge what is A, B, C, or other work? Again, overt standards are far preferable to "woo-woo."

4. Improved Feedback: By highlighting student performance strengths and weakness on behavioral criteria, we can better teach students how to improve in the future. Holistic evaluations often fail to pinpoint exactly where a student has excelled and where s/he needs further work.

5. Making the course make sense: By tying rubrics to both general course objectives and specific assignment requirements, we create a more logical, intelligible, cohesive learning environment. Students see and understand the big picture, specific activities, and how the two fit together.

6. Efficiency: If you’re fortunate enough to have a TA or if you team teach, a rubric helps “norm” grading. You don’t have to do all of it.
Helpful Web Resources

Thomson/Wadsworth Student Guide to Surviving College:  
http://www.wadsworth.com/colsuccess_d/special_features/weblinks.html

NCSU Undergraduate Tutorial Center Study Skills Tips  
http://www.ncsu.edu/tutorial_center/studyskills.htm

NC State Campus Writing and Speaking Program Resources:  
http://www2.chass.ncsu.edu/CWSP/resources.html

Slatta and Atkinson Teaching and Learning Links:  
http://faculty.chass.ncsu.edu/slatta/hi216/teaching.htm

Slatta Resources for First Year Courses and Programs:  
http://faculty.chass.ncsu.edu/slatta/hi216/learning/fysresources.htm

University of Delaware Resources for Problem-Based Learning: http://www.udel.edu/pbl/

New Horizons for Learning: http://www.newhorizons.org

Natural Critical Learning Environments http://www.montclair.edu/academy/ncle.html

Print References on Teaching and Learning

Challenging and Supporting the First-Year Student : A Handbook for Improving the First  
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Bass.


Walvoord, Barbara E. and Virginia J. Anderson. 1998. Effective Grading. San Francisco:  

Association for Supervision & Curriculum Development.