

Using the ILO-TL-Assessment Triangle

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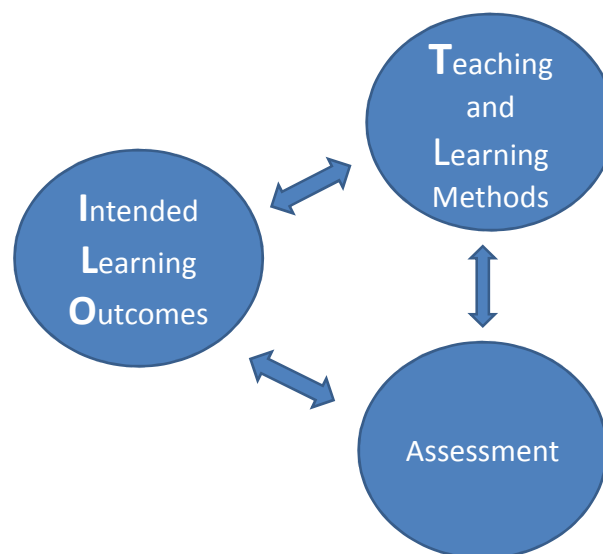
“Teaching, Learning and Assessment in Higher Education”

Workshop organized by

Al Hussein Fund for Excellence

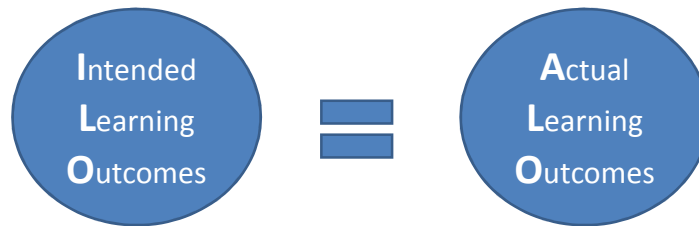
Amman – Jordan, 28-29/11/2010

Principle: Align ILO, TL and Assessment



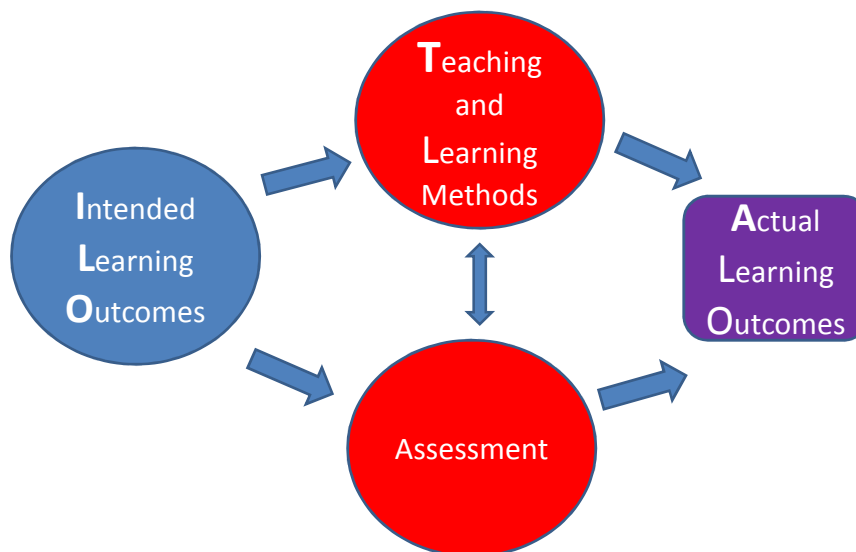
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Goal: Align Intended (ILOs) with Actual Learning Outcomes



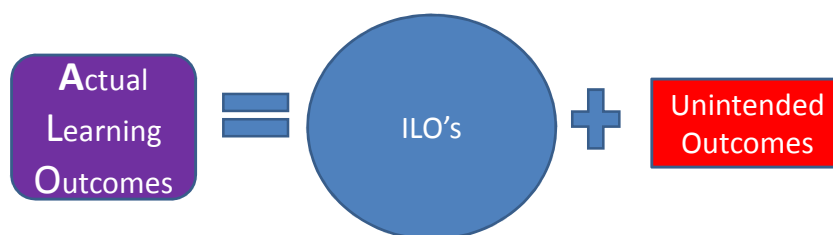
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Curricular Alignment in Reality



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Actual Learning Outcomes



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Aims (Goals)

- general statements
 - what the *teacher* hopes to achieve
 - **more** than the sum of a set of objectives
 - expert judgment involved
- e.g. create a good lawyer
appreciate literature
think clearly
- Not *easily* assessed;



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Objectives/Learning Outcomes

- what *students* are expected to learn or be able to do
- make the meaning of an aim concrete;
- indicate the scale and nature of the teaching task;
- SMART Objectives: Specific, meaningful, achievable, relevant and time-bound.



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From Broad Aims to Specific Learning Outcomes (not the other way around!)



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Possible Aims of Higher Education

1. Create better educated workers (focus on work-related skills)
2. Study traditional subjects for their own sake
3. Develop thinking (and lifelong learning) skills
4. Build character of future citizens and leaders
5. Contribute to social change or social good
6. Advance knowledge

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Defining Your ILOs

- What do you want students to *know*?
- What do you want students *to be able to DO*?
- How will students *be different*?
- Think about the *verb* that best describes the intended learning outcome.


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Tools to Help Write ILOs

- Use Taxonomies to help refine your language:
 - Bloom's Taxonomy (1956) of Educational Objectives in the Cognitive Domain
 - J. Donald (2001) Methods of Inquiry in Different Disciplines and Associated Thinking Processes
 - Anderson, Krathwohl et al (2001) Revision of Bloom's Taxonomy
 - Biggs' and Collis (1982) SOLO Taxonomy
 - L. Dee Fink's (2003) Taxonomy of Significant Learning

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Revised Bloom's Taxonomy (2001) of Educational Objectives

- Remembering
 - Understanding
 - Applying
 - Analyzing
 - Evaluating
 - Creating
- Lower Order*
- 
- Higher Order*

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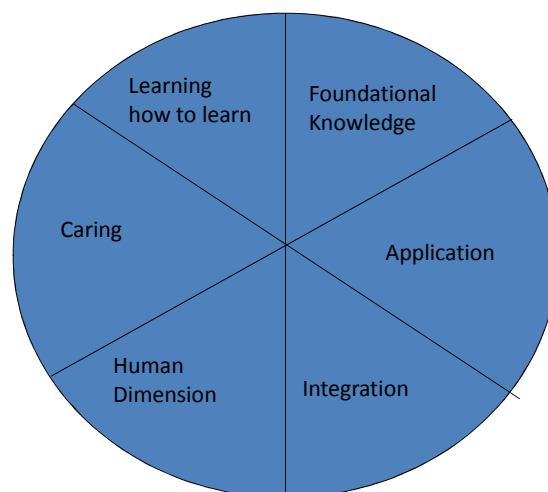
5 Minutes in Pairs

Look at your objectives and those of your neighbour.

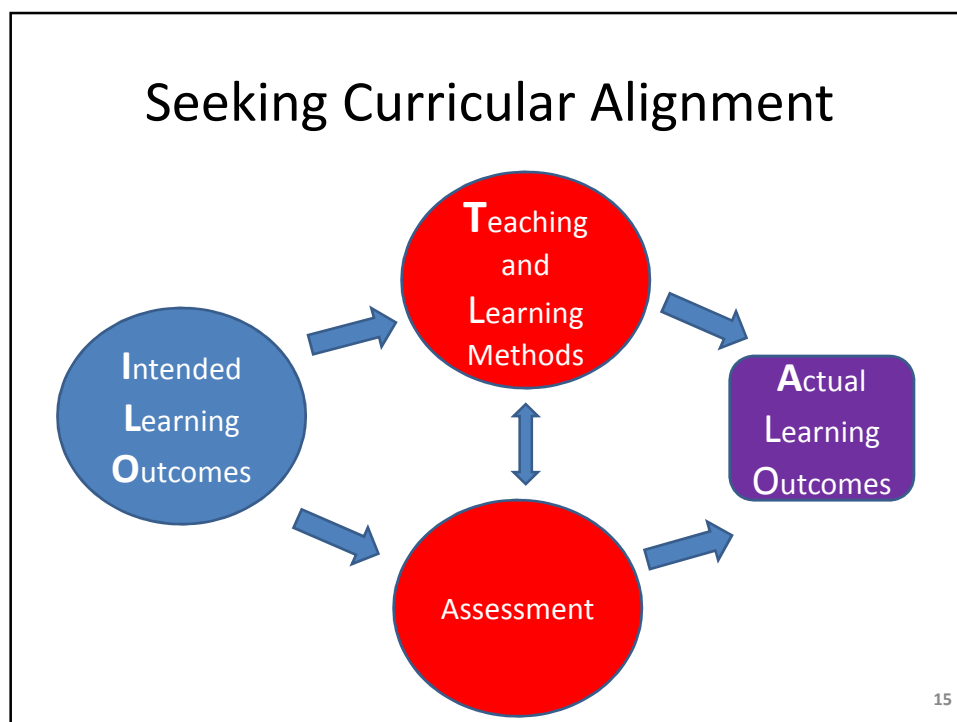
1. What is the *highest* order objective?
2. How well do your objectives match your sense of the aims of higher education?
3. Do your written objectives reflect what you **really** intend students to achieve as a result of the course?

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L. Dee Fink's (2003) Taxonomy of Significant Learning



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Beyond ILOs/TLs and Assessment: Aligning the Rest of the System

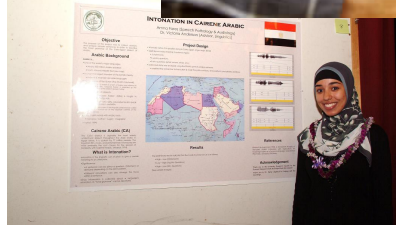
1. Communication with all stakeholders
2. Leadership support AND academic involvement
3. Engaging students in teaching enhancement
4. Staff and student induction/orientation
5. Appropriate structural supports (e.g. Classroom spaces, timetabling, reporting lines)
6. **Educational development: academics learning together about teaching**
7. **Evaluation of learning and teaching**
8. **Reward and recognition of teaching**

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Learning about Teaching



Workshops
Sustained courses
Grants
Projects
Conferences



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Making Use of Student Evaluations

- 1) Gather student input:
 - Course level – student feedback questionnaires
 - Student focus groups part way through course
 - National Level Benchmarks - National Survey of Student Engagement (USA), National Student Survey (UK), Course Experience Questionnaire (Australia)

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Making Use of Student Evaluations

2) Discuss and act on results:

- Peers or supervisors discuss student feedback and determine action plan
- Communicate changes made to students

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Rewarding Teaching

Hiring

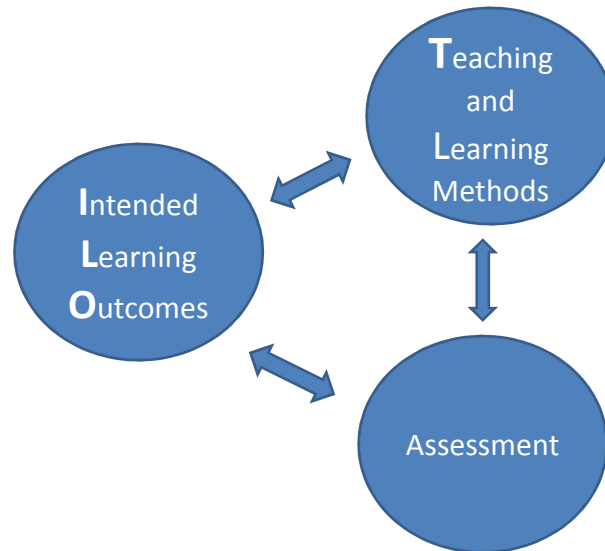
- “Job talks” about pedagogy of the discipline
- Statements of teaching philosophy
- Sample syllabi

Promotion

- Expect teaching development activities
- Assess teaching or course portfolios (in addition to research papers)
- Review student evaluations of teaching
- Include peer observations of teaching

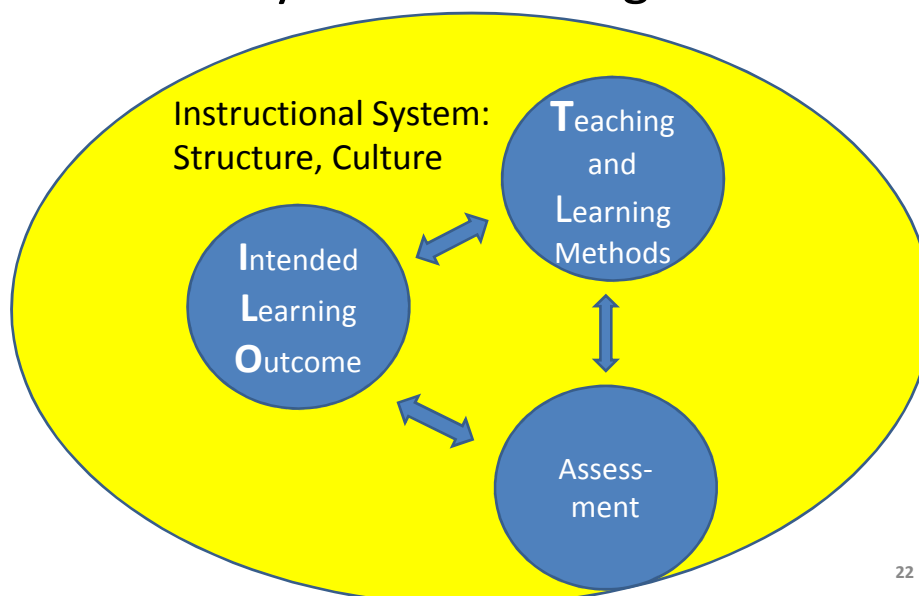
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In Summary: Aligning the Elements of Teaching



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Beyond The Triangle



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Questions? Comments?

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Lunch

- Enjoy Lunch from 12:30-2:00
- Reconvene at 2:00

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Matching Teaching and Learning Methods to Meaningful ILOs

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Which theory of teaching best describes *your* view of teaching?

Teaching is about...

- a) ...telling students about the subject. I focus on knowing my subject well and communicating it clearly.
- b) ...using techniques that ensure that students learn. I focus on using methods like discussion and experiential learning that keep students active.
- c) ...making student learning possible. I focus on students' misunderstandings, intervening to change them and engaging students with the subject matter.

Ramsden, P. (2003) Learning to Teach in Higher Education. 2nd edition. Routledge Falmer: London.

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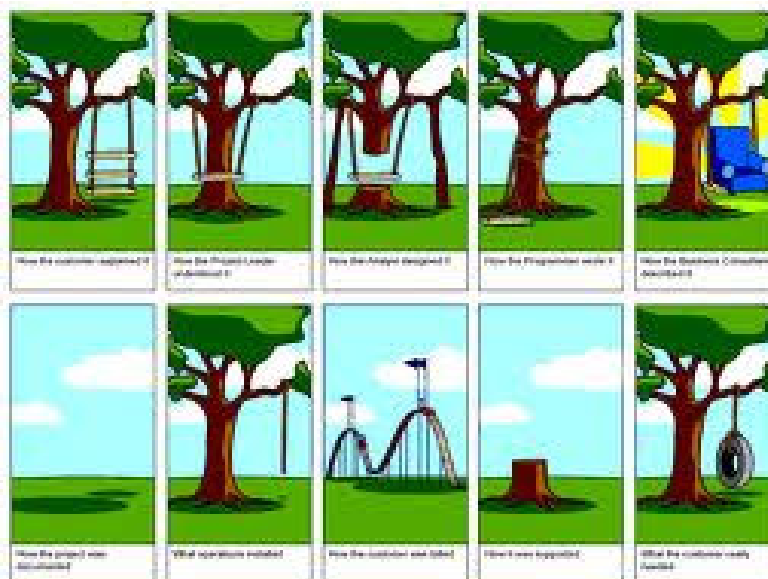
7 Principles for Good Practice in Undergraduate Education

1. “Encourages student-faculty contact
2. Encourages cooperation among students
3. Encourages active learning
4. Gives prompt feedback
5. Emphasizes time on task
6. Communicates high expectations
7. Respects diverse talents and ways of learning”

Chickering, A.W. & Z.F. Gamson (1987). *Seven principles of good practice in undergraduate education*. AAHE Bulletin, March 1987.

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What you say vs. what students think



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Questioning and Peer Collaboration in Interactive Lectures

- View Eric Mazur 2 minute video here
- <http://www.youtube.com/watch?v=IBYrKPoVFWg&feature=BF&list=QL&playnext=1>

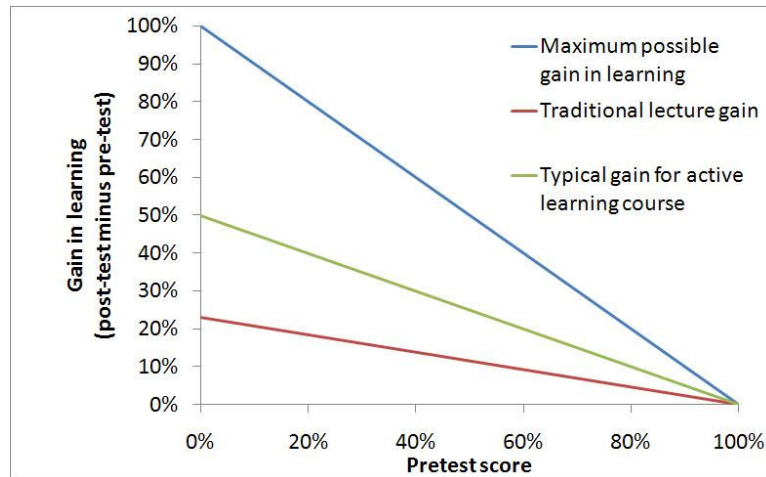
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Key Features

1. What did you notice? What was most striking about this example?
2. Which of the 7 principles of good practice in undergraduate education were operating in this example?

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Students Learn More



Adapted from Hake, R.R., 1998. Interactive-engagement versus traditional methods: A six-thousand student survey of mechanics test data for introductory physics courses. *American Journal of Physics* **66**, pp. 64–74.

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When is it appropriate?

- ILO's: Applying and analyzing
- Conceptual material (ConceptTests available in multiple science subjects) with common misconceptions
- Suitable for large classes
- Any level of student

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Tips for Making it Work Well

- Not just any multiple choice question – Concept Tests are specially researched based on common misconceptions
- Be organized!
- Manage the time well – agree a signal to end discussion
- Shift mundane topics into reading assignments, with quizzes on the reading

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Problem Based Learning

- <http://www.youtube.com/watch?v=XB7M5c6MUuo&feature=related>

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Key Features

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“Problem” (or Case-) Based Learning Develops these Skills:

- Thinking critically
- Ability to analyze and solve ***complex, real-world problems***
- Find, evaluate and use appropriate learning resources
- Work cooperatively and demonstrate communication skills
- Learn key ideas – the case, problem as a vehicle for particular content
- Learn how to learn – become self-regulated, autonomous learners
- Develop continual learners

Duch, B.J., SE Groh & D.E. Allen. (2001) The Power of Problem-based Learning. Stylus. Sterling, VA.

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When it is appropriate

- Professional preparation
- With small groups (5-6 students).
- “Pure” PBL curricula requires substantial departmental collaboration and teaching commitment to small groups.
- “Modified” PBL – or “case-based” small group learning suitable for variety of levels and situations.

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Tips for Making it Work Well

- Prepare students for PBL:
 - Group work skills
 - independent study and to how to create good “learning goals”.
- Be clear about the *purpose* of the case/problem
- Write (or find) a good problem/case that will challenge students for multiple sessions

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Service Learning is

"a form of **experiential education** in which students engage in activities **that address human and community needs** together with structured opportunities intentionally **designed to promote student learning** and development. Reflection and reciprocity are key concepts of service-learning." Jacoby, *Service-Learning in Higher Education*, 1996

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Service Learning Example

- Example: Stanford University's **History 201/301: Introduction to Public History in the US, 19th Century to the Present**
- Applied historical study in public settings such as museums and heritage sites, national and state parks, and educational institutions.
- 10 students created an archive and exhibit about an important 19th century California woman, Juana Briones de Miranda

<http://studentaffairs.stanford.edu/haas/courses/spotlight>

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Example: Goals:

- Make the “critical link between what is created in academic institutions and what is commonly accepted as history by the public”
- “make the relationship between academia and popular knowledge accessible and clear without losing the essential complexity of narrative history”
- Appreciate “connections between community developments in the present with historical understandings of communities”

Professor Carol McKibben

<http://studentaffairs.stanford.edu/haas/courses/spotlight>

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Example: Student Activities

- Read extensively about Briones in the context of 19th century California
- Interviewed members of the local Juana Briones Foundation
- Met with Special Collections staff members about cataloging and storing their collected archive
- Designed an exhibit for the library
- Presented the collected archive to the Library

<http://studentaffairs.stanford.edu/haas/courses/spotlight>

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When it is appropriate

- Almost any discipline
- Any level of student
- When your goals involve integration, the human dimension, caring and practical skills, civic engagement/social good.

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Tips for Making it Work Well

- Emphasize BOTH academic learning AND community service
- Meaningful projects
- Expect students to complete reflective journals, blogs or other writing multiple times
- At least 15-20 hours of service
- Regular discussion of service placements
- Appreciation of partner's goals (reciprocity of benefit)

Bringing Best Practices into your Classroom: How to Enhance the Quality of Service Learning <http://studentaffairs.stanford.edu/haas/faculty/haasresources>

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Oxford Tutorials

- Small groups of students (1-6)
- Self-directed learning between weekly meetings
- Long term relationship between student and tutor
- Tutor is questioner not “teacher”
- Students prepares a piece of work (essay or problem set) before the tutorial

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Aligning the Rest of the System

1. Communication with all stakeholders
2. Leadership support AND academic involvement
3. Engaging students in teaching enhancement
4. Staff and student induction/orientation
5. Appropriate structural supports (e.g. Classroom spaces, timetabling, reporting lines)
- 6. Educational development: academics learning together about teaching**
- 7. Evaluation of learning and teaching**
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Group Discussion

- Coffee break 3:15-3:45
- Cross disciplinary groups of 6 from 3:45-4:30

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Small Group Work: See handout for details....

- Discuss the intended learning outcomes
- Discuss the teaching/learning methods
- Identify next steps at an individual, institutional and/or national level

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Plenary Session (4:30-5:00)

1. What were some of the strengths of the syllabi (course outlines) you discussed?
2. What – in general - would improve them?
3. What needs to happen next (individually, institutionally, nationally)?

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