Thinking About Learning:

Motivating Students to Develop Into Intentional Learners

Karl Wirth
Dexter Perkins
Teacher as a Role Model

• Motivation before you
• Teaching Methodology you prefer & why?
• Course Objectives & Lesson Plans
• Assignment Objectives
• Fair & Transparent Assessment
• How to understand different types of students
Teacher as a Role Model

• How to develop thinking human beings
• What we do for Divergent Thinkers
• What we do for Convergent Thinkers
• What we do for inherited disability
• How to develop & maintain Values
• What we do to make us ego-ideals
Are you a Leader or a Follower

“Be more concerned with your character than your reputation, because your character is what you really are, while your reputation is merely what others think you are.”

- John Wooden
Personality Perception Test

How do you interpret this picture?
Intelligence

- Intra-Intelligent
- Inter-Intelligent
- Spatial-Intelligent
- Logical-Intelligent
TQM FRAMEWORK
(ROVER GROUP)
The Challenges...

Implementing New Instructional Approaches

Motivating Students:
- Responsibility for Their Own Learning
- Broader Learning Goals
Learning to Learn

How will you get there...
...if you don’t know where you are going?
Evolution of an Idea

- Outgrowth of Teaching Workshops and Seminars
- Search for “Overview of Learning” For Students
- Consider What Students Need to Know
- Preparation of Learning Document
- Learning Co-Curriculum
Learning Co-Curriculum

• Reading at Beginning of Semester
• In-Class Discussion & Activities
• **Learning Styles Surveys**
• Reflective Journaling
• Frequent Discussion Throughout Semester
Learning Theories

- Cognitive: Tolman
- Behaviouristic: Ivan Pavlov
- Social-Learning: Albert Bandura
Learning Styles

• **Theorists** seek to understand basic principles
• **Reflectors** observe phenomena
• **Activists** deal with practical problems and do not have patience for theory
• **Pragmatists** see a direct link to practical problems
Learning Cycle

• Think

• Plan

• Act  Kolb Cycle

• Learning through mistakes
Learning Asset

- Story telling, reading, writing
- Presentation skills
- Essay writing
- Newspaper reading
- Animated movies
- Microsoft Encarta
- Case-study & group-discussion
Why do **PEOPLE** go to college/University...?
What is the purpose of higher education...?
Purpose of Higher Education
to help college students become **Intentional Learners**
who can adapt to new environments, integrate
knowledge from different sources, and continue
learning throughout their lives.

*Greater Expectations*
(2002 AACU Report)
Intentional Learners

Becoming an intentional learner means: developing self-awareness about the reason for study, the learning process itself, and how education is used.

Intentional learners are integrative thinkers who see connections in seemingly disparate information to inform their decisions.
Intentional Learners Are...

- **EMPOWERED** through the mastery of intellectual and practical skills
- **INFORMED** by knowledge about the natural and social worlds and about forms of inquiry basic to these studies
- **RESPONSIBLE** for their personal actions and for civic values
EMPOWERED Learners Can...

• effectively communicate orally, visually, in writing, and in a second language

• understand and employ quantitative analysis to solve problems

• interpret and evaluate information from a variety of sources

• understand and work with complex systems and with diverse groups

• demonstrate intellectual agility and ability to manage change

• transformation information into knowledge and knowledge into judgment and action
INFORMED Learners Understand...

- the human imagination, expression, and the products of many cultures
- the interrelations with and among global and cross-cultural communities
- the means of modeling the natural, social, and technical worlds
- the values and histories underlying U.S. democracy
RESPONSIBLE Learners Value...

• intellectual honesty

• responsibility for society’s moral health and for social justice

• active participation as a citizen of a diverse democracy

• discernment of the ethical consequences of decisions and actions

• deep understanding of one’s self and respect for the complex identities of others, their histories, and their cultures
Intentional Learners are Self-Directing

Self-directing learners are highly motivated, independent, and strive toward self-direction and autonomy. They take the initiative to diagnose their learning needs, formulate learning goals, identify resources for learning, select and implement learning strategies, and evaluate learning outcomes.

The Language of Learning

- Definition of Learning
- Levels of Understanding
- Significant Learning
- Critical Thinking
- Research on The Brain
- Learning Styles
- Metacognition
- Affective Domain
- Intellectual Development
- Behavioral Dimensions of Grades
Learning Beyond Memorization

Bloom’s Taxonomy (1956)
<table>
<thead>
<tr>
<th>Level</th>
<th>Definition</th>
<th>Verb Examples That Can Represent Intellectual Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation</td>
<td>Appraise, assess, or critique on basis of standards or criteria</td>
<td>appraise, argue, assess, attach, choose, defend, estimate, judge, predict, rate, select, evaluate</td>
</tr>
<tr>
<td>Synthesis</td>
<td>Originate, integrate, or combine ideas into a new product or plan</td>
<td>arrange, assemble, compose, construct, create, design, develop, formulate, organize, propose</td>
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<tr>
<td>Analysis</td>
<td>Distinguish, classify, or relate assumption, hypotheses or evidence</td>
<td>analyze, appraise, categorize, compare, distinguish, examine</td>
</tr>
<tr>
<td>Application</td>
<td>Select, transfer, and use data or principles to complete new task</td>
<td>apply, choose, demonstrate, employ, illustrate, interpret, solve, use</td>
</tr>
<tr>
<td>Comprehension</td>
<td>Translate, comprehend, or interpret information</td>
<td>classify, describe, discuss, explain, indicate, restate, translate</td>
</tr>
<tr>
<td>Knowledge</td>
<td>Recall or recognition of information, ideas and principles</td>
<td>arrange, define, label, list, name, relate, recall, repeat, reproduce</td>
</tr>
</tbody>
</table>
Significant Learning
Learning that will be “significant to the learner”

• Foundational Knowledge
• Application
• Integration
• Human Dimension
• Caring
• Learning How to Learn

Relational & Interactive

Fink (2003)
Elements of Reasoning

Purpose & Motivation
Question or Problem
Assumptions
Point of View
Data, Information, Evidence
Concepts & Ideas
Inferences & Conclusions
Implications & Consequences
Metacognition

- How We Think
- Strategies for Learning
- How One’s Thinking is Changing
- Assessing One’s Own Understanding
- Progress on Learning Goals
Journaling on Metacognition

Describe the learning strategies that you are currently using in this course? How successful are they? How might they be modified for more effective learning?

Describe the methods you are using to monitor your understanding? How well are these strategies working?
Affective Domain

- Attitudes
- Motivation
- Willingness to Participate
- Valuing What is Being Learned
- Incorporating Values Into Life
Journaling - Affective Domain

How have your attitudes about the significance and relevance of the course materials changed?

Describe how the content and skills you have learned in this course might be relevant to other courses you are currently taking. How about in your future education? In your career?
...as the semester progressed I was actually pretty surprised to realize that I thought about “Learning to Learn” a lot.

...when reading a text or studying for a test, I would double-check to make sure that I was actually learning the concepts by thinking about what Bloom level the information...

This semester I continue to keep myself in check by reflecting on my learning (or lack thereof)...
“Learning to Learn” Document

Available from:
Macalester.edu/Geology/Wirth/CourseMaterials

Send Your “Top 10” Learning Topics to:
wirth@macalester.edu
Opportunities for New Conversations About Learning ...
The Liberal Education

- Ability to Communicate
- Critical Thinking
- Moral Reasoning and Behavior
- Preparation for Citizenship
- Living With Diversity
- Living in A More Global Society
- Acquiring Broader Interests
- Preparing for Work

Bok (2006)
An OED Definition of Learning

• To acquire knowledge of a subject or a skill through education or experience,

• To gain information about somebody or something, or

• To memorize something, for example facts, a poem, or music.

Shift from “recall” to “use”
Simon (1996)
Revised Taxonomy

Revised by Anderson & Krathwohl (2001)
Significant Learning
Critical Thinking

“... is the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action”

National Council for Excellence in Critical Thinking
The Brain as a Dynamic Organ

- Learning Changes Physical Structure of the Brain
- Synapse Addition, Experience, and Environment
- Structural Changes Alter Functional Organization
- Learning Literally Involves “Re-Wiring the Brain”
- “Novices” and “Experts”

How People Learn: Brain, Mind, Experience and School

NRC (2000)
Student Learning Styles

- Focus on different types of information
- Operate on that information differently
- Achieve understanding at different rates
- No learning style is "better"
- Instructors tend to teach to their learning style

VARK
(Visual, Aural, Reading, Kinesthetic)

- Preferences for input and output of info
- Strategies for enhancing learning
**Intellectual Development**

Perry’s (1968) Study of Harvard Students
Nine Positions of Intellectual Development; Four Sub-Categories

**Stage I - Dualism (Positions 1 & 2)**
Either-Or thinking; Authorities have all the answers

**Stage II - Multiplicity (Positions 3 & 4)**
Recognition of uncertainty; Everyone’s opinions equally legitimate

**Stage III - Relativism (Positions 5 & 6)**
Critical thinking; Knowledge is contextual and relativistic

**Stage IV - Commitment to Knowing (Positions 7, 8 & 9)**
Developing commitment and sense of being; Knowledge is the resolution between uncertainty and the need to act
Behavioral Dimensions of Grades

- Commitment
- Preparation
- Curiosity
- Attitude
- Talent
- Retention
- Effort
- Communication Skills
- Performance

Williams (1993)
Changing Landscape of Teaching & Learning

- Research on the Brain
- Research on Learning
- New Students & Learning Styles
- Technology
- Globalization
Research on Learning

- Active & Learner-Centered
- Teamwork & Collaborative
- Roles of Transfer & Metacognition
- Importance of Community & Civic Engagement
- Multi-dimensional

*How People Learn (NRC, 2000)*
*Significant Learning (Fink, 2003)*
New Students & Learning Styles

- Faculty are mostly Boomers and Gen Xers
- Millennial Preference for Sensing Styles

Active Learning
Teamwork
Civic Engagement
Use of Technology
Technology & Globalization

- Age of Communication & Multimedia
- New Definition of “Educated”
- Adaptability & Lifelong Learning

Friedman (2005)
Tapscott (1998)
Six Self Motivation Tips to Give Yourself a Boost!

- Avoid just going through the motions
- Get spiritual
- Set a goal
  break up the goal into a series of small, achievable tasks
- Hold yourself accountable
- don't be afraid to ask for help
Six Self Motivation Tips to Give Yourself a Boost!

- Think positive thoughts
- Make a change

*Always keep in mind that "the time is now*
The 7 Habits of Highly Effective People

• What is habit?
  The intersection of knowledge, skill and desire.
• Knowledge?
  What to do and the why
• Skill?
  How to do
• Desire?
  The motivation or want to do
The 7 Habits of Highly Effective People (Contd.)

• **Be Proactive**
  Doing the right things.

• **Rather Reactive**
  Doing the things right.
The 7 Habits of Highly Effective People (Contd.)

- **Begins with the end in Mind.**
  - All things are created twice.
  - Develop a personal philosophy.

- **Put First Things First.**
  - Self management

<table>
<thead>
<tr>
<th></th>
<th>Urgent</th>
<th>Not Urgent</th>
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</thead>
<tbody>
<tr>
<td><strong>Important</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td></td>
<td></td>
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<tr>
<td>Crises, fire-fighting</td>
<td>Prevention, Relationship building</td>
<td></td>
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<tr>
<td>Pressing problems</td>
<td>Recognizing new opportunities</td>
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<tr>
<td>Deadline driven projects</td>
<td>Planning, recreation</td>
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<tr>
<td>II</td>
<td></td>
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<tr>
<td>III</td>
<td></td>
<td></td>
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<tr>
<td>Interruptions, pressing matters</td>
<td>Trivia, busy work</td>
<td></td>
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<tr>
<td>Some mail, calls, reports</td>
<td>Time wasters</td>
<td></td>
</tr>
<tr>
<td>Some meetings, proximate</td>
<td>Popular activities</td>
<td></td>
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</tbody>
</table>

**Time Management Matrix**
The 7 Habits of Highly Effective People (Contd.)

• **Think Win-Win.**
  – Win –Win is a frame of mind and heart that constantly seeks mutual benefits in all human interactions.

• **Four Steps in Win-Win process**
  – See the problem from the others view point
  – Identify the key issues and concerns
  – Determine acceptable results
  – Seek possible options to achieve those results.
The 7 Habits of Highly Effective People (Contd.)

- **Seek First to Understand, Then to Be Understood.**
  - Empathic listening is key to effective communication
- **Covey’s three Greek words:**
  - **Ethos**------Your personal credibility or character
  - **Pathos**------The empathy you have for other person’s communication
  - **Logos**------Logic or reasoning part of your presentation
The 7 Habits of Highly Effective People (Contd.)

• **Synergy.**

• **Sharpen the Saw (Renewal)**
  – Four dimensions nature.
    • Physical
    • Spiritual
    • Mental
    • Social/emotional
Get the Most Out of Your Organization and Your Efforts with Leadership Effectiveness Quotient

<table>
<thead>
<tr>
<th></th>
<th>IQ Business Intelligence</th>
<th>+</th>
<th>EQ Emotional Intelligence</th>
<th>=</th>
<th>LEQ Leadership Effectiveness</th>
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<tbody>
<tr>
<td>Lead Business</td>
<td>Facts</td>
<td>+</td>
<td>Intuition</td>
<td>=</td>
<td>Business Acumen</td>
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<tr>
<td>Lead People</td>
<td>Skills</td>
<td>+</td>
<td>Caring Perceptiveness</td>
<td>=</td>
<td>Connect with People</td>
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<tr>
<td>Lead Process</td>
<td>Linear</td>
<td>+</td>
<td>Non-linear</td>
<td>=</td>
<td>Flexibility</td>
</tr>
<tr>
<td>DecisionMaking</td>
<td>Reasoning</td>
<td>+</td>
<td>Core Values</td>
<td>=</td>
<td>Wisdom</td>
</tr>
</tbody>
</table>
LQ = 6 I

1. Inspiration
2. Integrity
3. Initiative
4. Innovation
5. Impact
6. Influence
5. Douglas McGregor
   Theory X and Theory Y

Theory X

Coercive contract

Inflicting Punishments
5. Douglas McGregor's Theory X and Theory Y

Theory Y

Co-operative Contract

Calculable contract

As people have natural tendency for entertainment, sleep, hunger, they have also tendency to work. If we provide incentives and favorable environment, they may be motivated.

• Carrot and stick style
Scenario

A young girl has fallen down from a mango tree and has bruised her knees. Her father reaches the place where she fell down and says:

(a) “Serves you right! That will teach you not to climb the tree again.”

OR

(b) “Are you sure you are all right? Please don’t move. I’ll carry you to the house.”

How will the young girl interpret each of these statements? Write her feelings in three sentences separately each for (a) and (b).
Answers

(a) The young girl is badly hurt. She thinks that her father does not love her and that he is a hard hearted person. She will also get rebellious and there is little room for improvement in this case.

(b) In this case, she feels herself to be loved and protected. She thinks highly of her father and respects him from the core of her heart. She would promise not to repeat such action in future.
Douglas McGregor's Theories

- Theory X
  - Spare the rod and spoil the child
Douglas McGregor's Theories

- Theory Y
  - Spare the rod and save the child
Douglas McGregor's Theories

- Contingent Plan
  - Carrot and Stick Style

Video Hooks
Continuum Range Style
John Adair: action – centred leadership

Leader

Individual  Group  Task
ALBERT EINSTEIN

"I never teach my people, I only attempt to provide the conditions in which they can learn "

"I never teach my people, I only attempt to provide the conditions in which they can learn "
Abraham Lincoln's LETTER TO HEADMASTER

A WORD TO TEACHERS

"He will have to learn, I know, that all men are not just and are not true. But teach him if you can, the wonder of books... but also give him quiet time to ponder the eternal mystery of birds in the sky, bees in the sun and flowers on a green hillside.

In school, teach him it is far more honorable to fall than to cheat.....
Teach to have faith in his own ideas, even if everyone tells him he is wrong.
Teach him to be gentle with gentlepeople and tough with the tough.
Try to give my son the strength not to follow the crowd when everyone getting on the bandwagon...
Teach him to listen to all men; but teach him also to filter all he hears on a screen of truth, and take only the good that comes through.
Abraham Lincoln's LETTER TO HEADMASTER

Teach him, if you can, how to laugh when he is sad... Teach him there is no shame in tears.

Teach him to scoff at cynics and to be beware of too much sweetness... Teach him to sell his brawn and brain to highest bidders, but never to put a price on his heart and soul. Teach him to close his ears to a howling mob... and stand and fight if thinks he is right.

Treat him gently, but do not cuddle him, because only the test of fire makes fine steel. Let him have the courage to be impatient... Let him have the patience to be brave. Teach him always to have sublime faith in himself, because then he will have faith in humankind.

This is a big order, but see what you can do. . . He is such a fine little fellow my son!

- Abraham Lincoln
PROBLEMS IN SPEAKING

- Hesitation
- Shakiness
- Fear of crowd
- Language
- Confidence
- Technicality
Do’s

1. Planning
2. Dealing with nerves
3. Structure
4. Body Language
5. Visual Material
Don'ts

- Never try to bluff.
- Avoid jargons.
- Too many visual aids swamp the audience.
- Avoid unnecessary statements.
- Don't use abstractions.
- Better no jokes than poor ones.
- Avoid excessive use of metaphors e.g. shoulders to the wheel, nose to the grindstone, sticky wicket.
- Never talk down to an audience.
Power of Presentation
Ways to Instantly Build Self Confidence

- Dress sharp
- Walk faster
- Good posture
- Gratitude
- Compliment other people
- Sit in the front row
- Speak up
- Work out
- Focus on contribution