

A photograph of a large, ornate, light-colored stone building with a prominent central tower and multiple spires, likely a university building. The building is set against a blue sky with scattered white clouds. In the foreground, there are lush green trees on the left and a vibrant garden bed filled with yellow and pink flowers. A black lamppost stands near the trees.

Teaching at Northern Illinois University

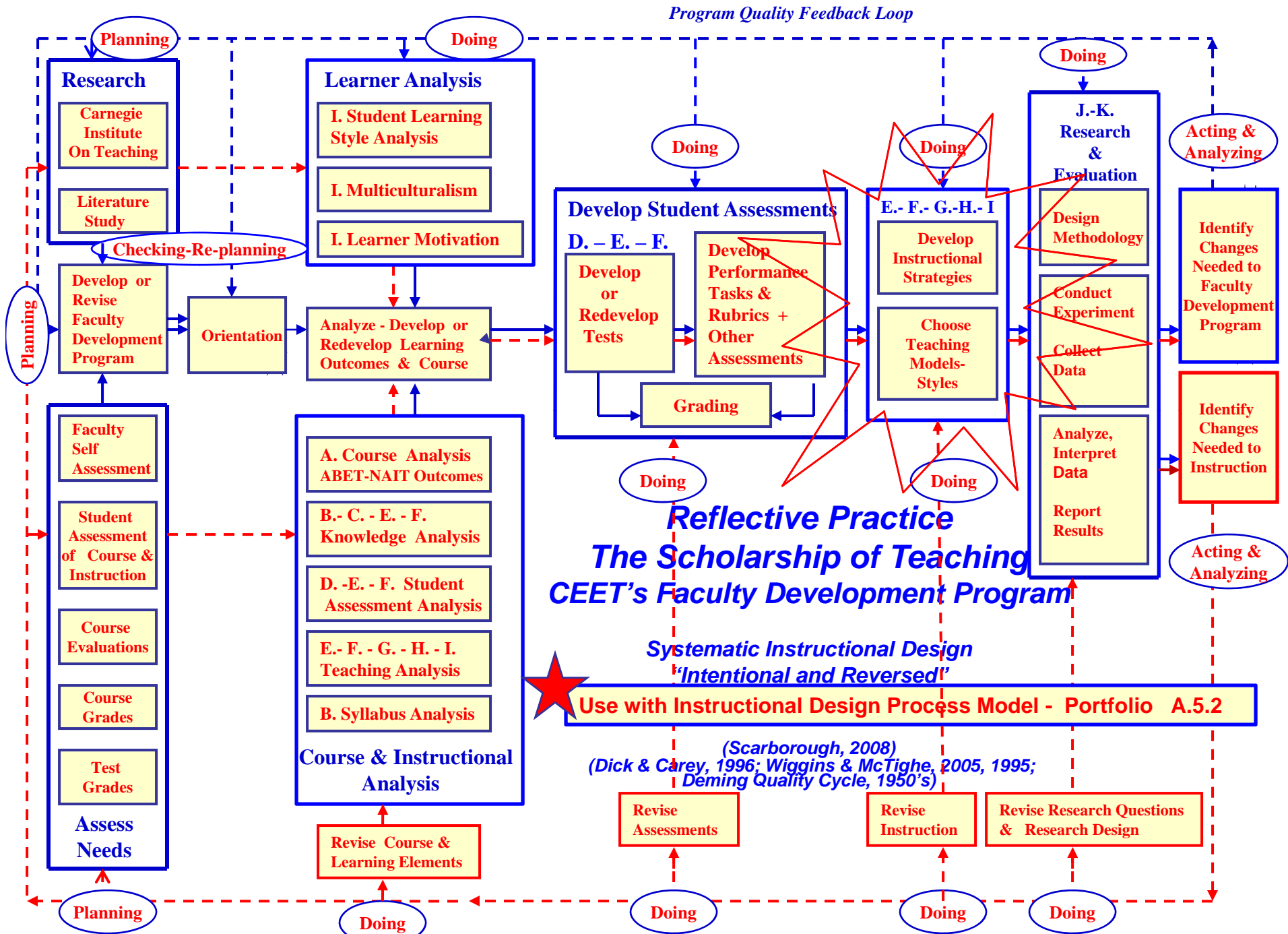
*Teaching Models
and Styles
Learning Styles
TESA*

(for PowerPoint presentations, contact julescarborough@niu.edu)

Jule Scarborough, 2008

Table 1.5 A Summary of The Seven Principles of Good Practice

Principle	Behavioral indices
Good practice encourages student–faculty contact: Frequent contact in and out of classes	<ul style="list-style-type: none"> Remembering students' names Involving students in lab and field research projects Taking students to conventions, regional conferences Disclosing personal values, when appropriate Attending student-sponsored events Mentoring and informal advising
Good practice encourages cooperation among students: Collaborative, noncompetitive learning in small groups and student-to-student networks	<ul style="list-style-type: none"> Encouraging self-disclosure to one another Facilitating the formation of study groups Assigning group projects Using peer evaluation techniques when grading Teaching through group discussion Promoting student-to-student tutoring/teaching Grading by criteria and not by interstudent comparison
Good practice encourages active learning: Teaching methods that require more than passive listening and note taking from students	<ul style="list-style-type: none"> Requiring class presentations Assigning papers and projects that promote critical thinking Asking students to integrate contemporary events with course material, discussing real-life cases, etc. Assigning term projects and independent studies
Good practice gives prompt feedback: Assessment of baseline knowledge, frequent testing of progress in learning, and global assessment of educational outcomes	<ul style="list-style-type: none"> Involving students in research Giving quizzes and homework assignments Returning examinations and papers within a week Providing feedback to students early in the term Writing comments on exams and papers Pretesting students Calling or e-mailing students who miss classes
Good practice emphasizes time on task: Setting appropriate time demands and helping students learn to manage their time	<ul style="list-style-type: none"> Establishing deadlines for completing assignments Discussing course demands with students Helping students set challenging goals Encouraging practice runs before oral reports Stressing self-regulation, studying, and attendance Meeting with students who fall behind
Good practice communicates high expectations: Setting reasonable but high standards for achievement	<ul style="list-style-type: none"> Warning students about time commitment to the course Stressing high standards of achievement Establishing performance expectations orally and in writing Helping students set challenging goals Explaining penalties for missed or late work Assigning writing Calling attention in class to excellence by class members
Good practice respects diverse talents and ways of learning: Providing a variety of learning experiences and assessment options	<ul style="list-style-type: none"> Encouraging questions Discouraging off-task, divisive comments Using a variety of teaching methods Discussing the contributions of women and minority psychologists Developing and using alternative teaching methods Exploring students' backgrounds, learning styles, and outlooks



Brain Research (Jensen, 1998, Tomlinson, 1999)

- The brain seeks meaningful patterns and resists meaninglessness
- It retains isolated or disparate bits of info. but it is much more efficient at retaining information that is “chunked”
- Responds much more effectively and efficiently to something that carries deep and personal meaning, something that is life shaping, relevant, important, or taps into emotions

- Students need to be optimally challenged with activities that ask them to risk a leap into the unknown, but they know enough to get started and have additional support for reaching a new level of understanding



Increase intrinsic
motivation

CHOICES

Provide choices: content,
timing, work partners,
projects, environment, or
resources

RELEVANT

Make it personal: relate
to family, neighborhood,
city, life stages, love,
health, etc

ENGAGING

Make it emotional,
energetic; make it
physical; use learner-
imposed deadlines



Increase apathy and
resentment

REQUIRED

Directed 100%, no
student input, resources
restricted

IRRELEVANT

Impersonal, useless, out
of context, and only done
to pass a test

PASSIVE

Disconnected from the
real world, low interaction,
lecture, seatwork, or video

Jensen, 1998, Pg. 48

Jule Scarborough, 2008; some content based upon J.Parker, 2001

Qualities of Genius (Armstrong, 1998)

- Curiosity
- Playfulness
- Imagination
- Creativity
- Wonder
- Wisdom
- Inventiveness
- Vitality
- Sensitivity
- Flexibility
- Humor
- Joy

How Genius Shuts Down

- Role of the Home
 - Emotional dysfunction
 - Poverty
 - Fast track lifestyles
 - Rigid ideologies

How Genius Shuts Down

- Role of the School
 - Testing and grading
 - Labeling and tracking
 - Textbooks and worksheet learning
 - Tedium

How Genius Shuts Down

- Role of the Popular Media
 - Stereotypical images
 - Insipid language
 - Mediocre content

Awakening Genius in the Classroom

- Re-awaken genius in yourself
- Create a genial classroom climate
 - Freedom to choose
 - Open-ended exploration
 - Freedom from judgment
 - Honoring every student's experience
 - Belief in every child's genius
- Genius is expressed in different ways

How do students express their genius?

Jule Scarborough, 2008; some content based upon J.Parker, 2001

Multiple Intelligences

(Gardner, 1983, Campbell, Campbell, & Dickinson, 1999)

- Much research has been done and drawn several conclusions:
 - We think, learn, and create in different ways
 - Development of our potential is affected by the match between what we learn and how we learn with our particular intelligences
 - Intelligence is multifaceted, not singular
 - Intelligence is fluid and not fixed

Verbal/Linguistic

- Ability to think in words and to use language to express and appreciate complex meaning
- Words, wordsmiths, speaking, writing, listening, reading, papers, essays, poems, plays, narratives, lyrics, spelling grammar, foreign language, memos, bulletins, newsletters, newspapers, faxes, e-mail, dialogues, debates.
- Authors, poets, journalists, speakers, newscasters

Jule Scarborough, 2008; some content based upon J.Parker, 2001

Logical/Mathematical

- Makes it possible to calculate, quantify, consider propositions, and hypotheses, and carry out complex mathematical operations
- Reasoning, deductive and inductive logic, facts, data, information, spreadsheets, databases, sequencing, ranking, organizing, analyzing, proofs, conclusions, judging, evaluations, and assessments
- Scientists, accountants, engineers, programmers

Visual/Spatial

- Instills the capacity to think in three dimensional ways. Enables one to perceive external and internal images, to produce or decode graphic information
- Images, graphics, drawings, sketches, maps, charts, doodles, pictures, designs, imagination, visualization, dreams, films, cartoons
- Sailors, pilots, sculptors, painters, architects

Bodily/Kinesthetic

- Enables one to manipulate objects and fine tune motor skills. Ability to unite body and mind. Foundation of human knowing as we experience life through our sensory-motor experiences
- Experiential, hands-on, actions, play, touch, manipulate, games, field trips, drama, sports
- Dancers, athletes, surgeons, physical educators

Musical/Rhythmic

- Sensitivity to pitch, melody, rhythm, and tone.
- Music, rhythm, pacing, tenor, choir, songs, jingles,
- Composers, sensitive listeners, conductors, musicians

Interpersonal

- Capacity to understand and interact effectively with others. Operates primarily through person-to-person relationships and communication
- Interact, laugh, whisper, empathize, sympathize, group projects, debates, dialogues
- Teachers, social workers, actors, counselors

Intrapersonal

- Ability to construct an accurate perception of oneself and to use such knowledge in planning and directing one's life
- Self-reflection, logs, journals, poetry, meditations, creative expression
- Psychologists, theologians, philosophers, parents

Naturalistic

- Recognition, appreciation, and understanding of patterns in nature. Understanding natural and human-made systems
- Field trips, nature walks, ecological studies, plant identification, weather forecasting
- Botanists, farmers, zoologists, landscapers

Content of a Healthy Classroom

- relevant to students, personal and seems familiar, connected to the world they know
- helps students understand themselves and their lives more fully now, and will continue to do so as they grow

Content of a Healthy Classroom

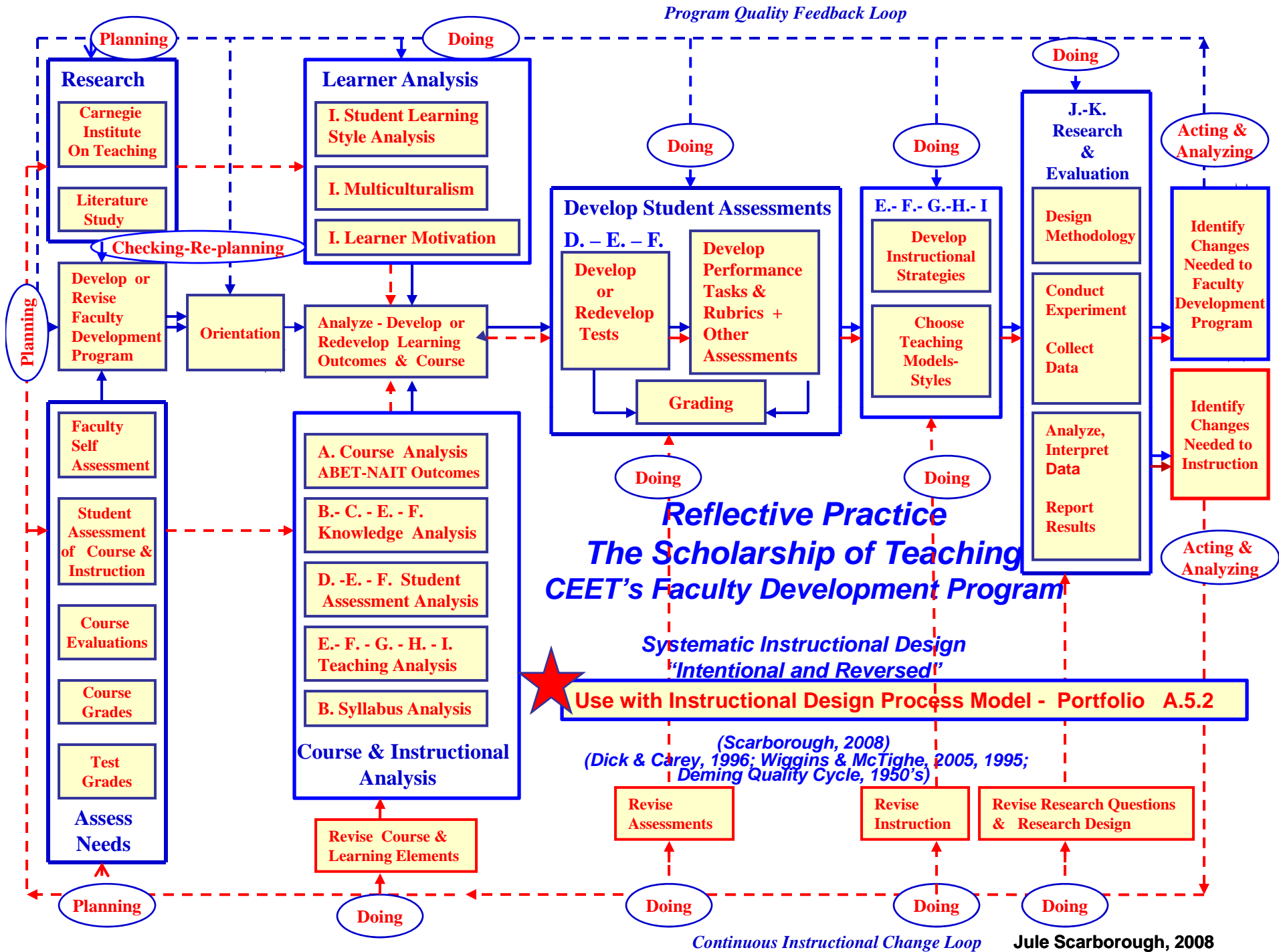
- authentic, offering “real” history etc not just exercise about the subject
- can be used immediately for something that matters to the students
- makes students more powerful in the present and the future

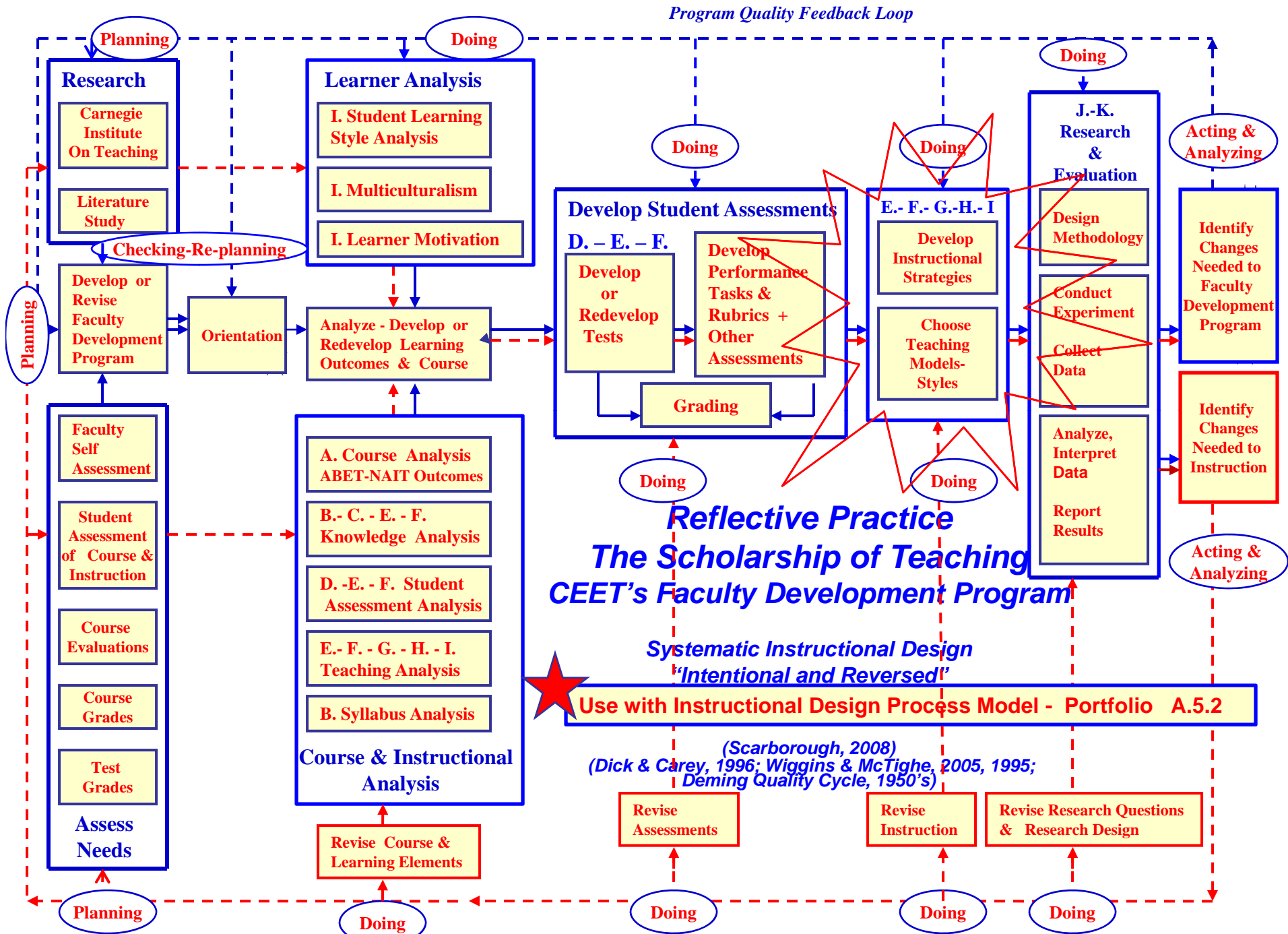
Creating a Healthy Classroom

- Appreciate each student as an individual
- Teach the student as a whole
- Continue to develop expertise
- Link students and ideas
- Strive for joyful learning

Creating a Healthy Classroom

- Help students make sense of their own ideas
- Share teaching with students
- Strive for student independence
- Use positive energy and humor
- Discipline is more covert than overt

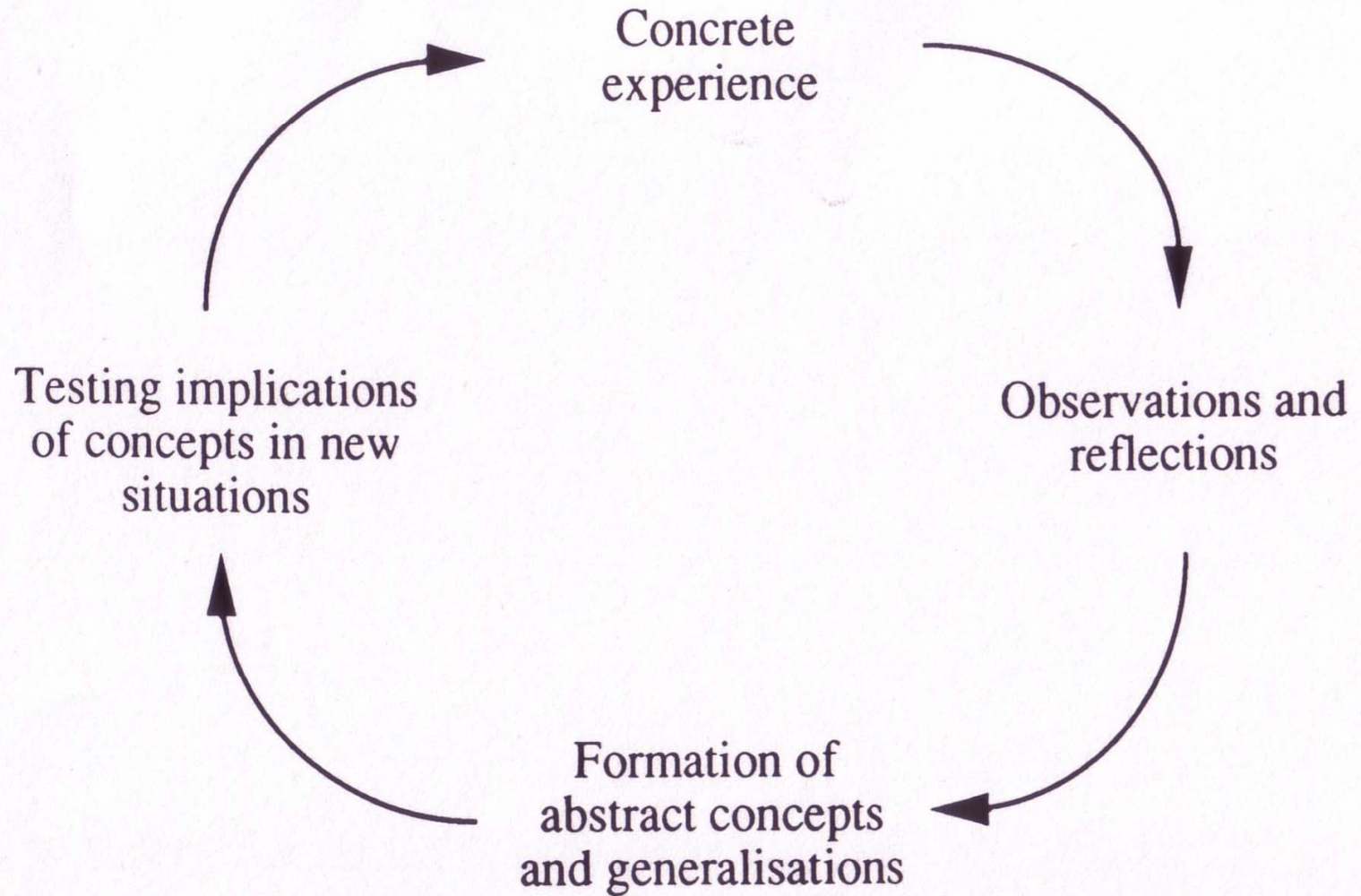




Learning Styles (David A. Kolb, 1999)

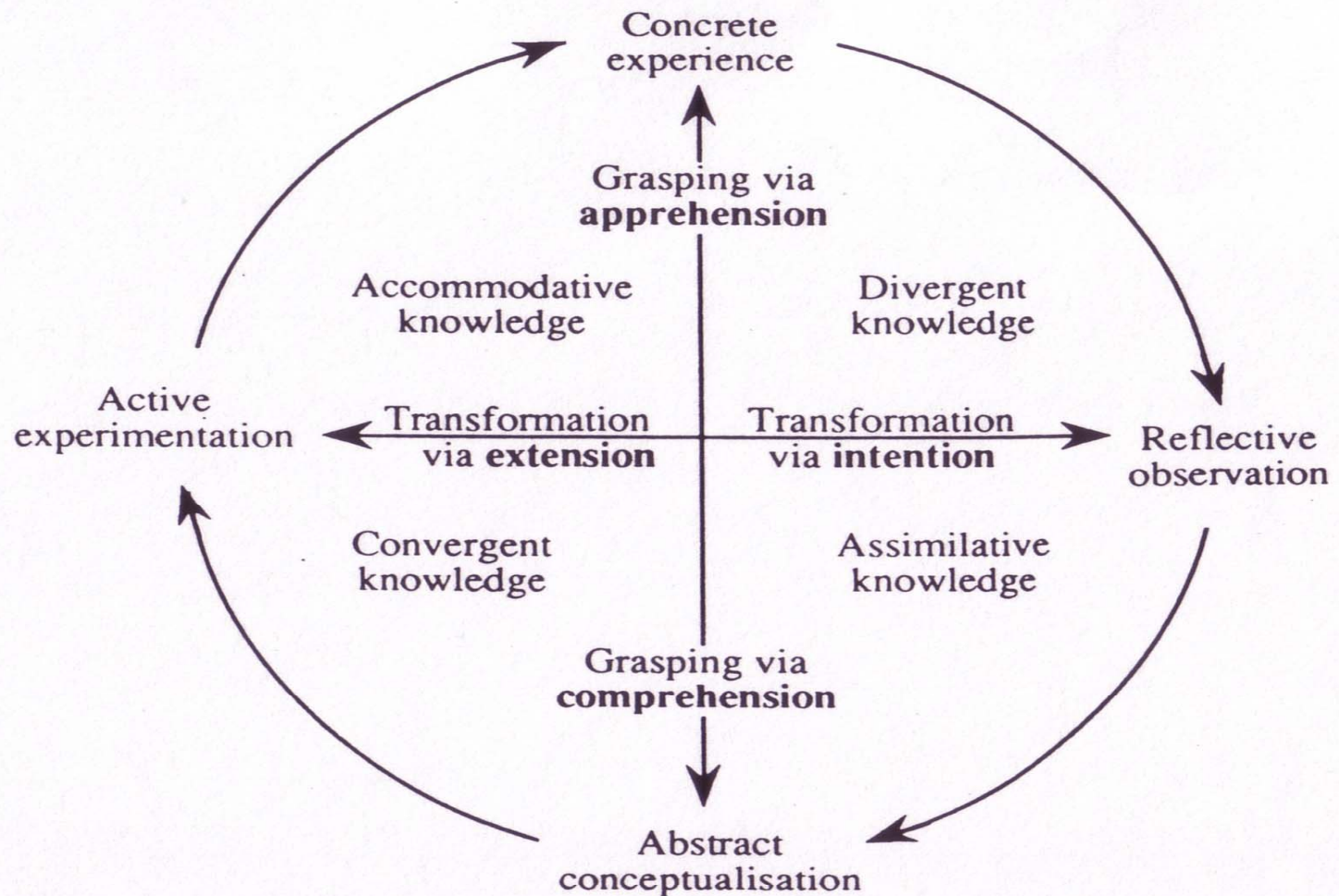
- Two ways to take in experiences
 - Concrete Experience (Feeling)
 - Abstract Conceptualization (Thinking)
- Two ways to deal with experiences
 - Active Experimentation (Doing)
 - Reflective Observation (Reflecting)

The Lewinian Experiential Learning Model



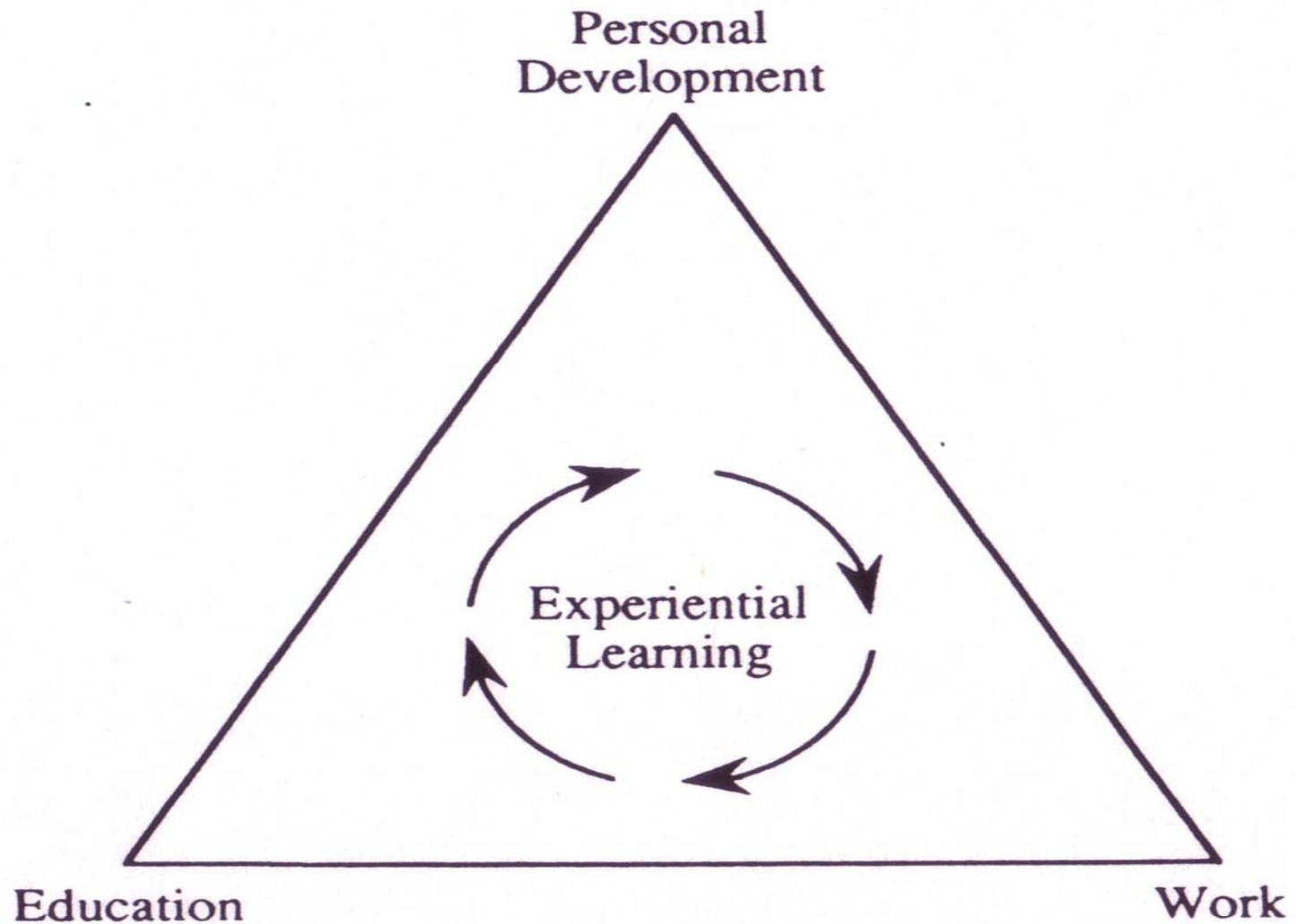
Kolb (1984) p.21

Kolb's Model of Experiential Learning



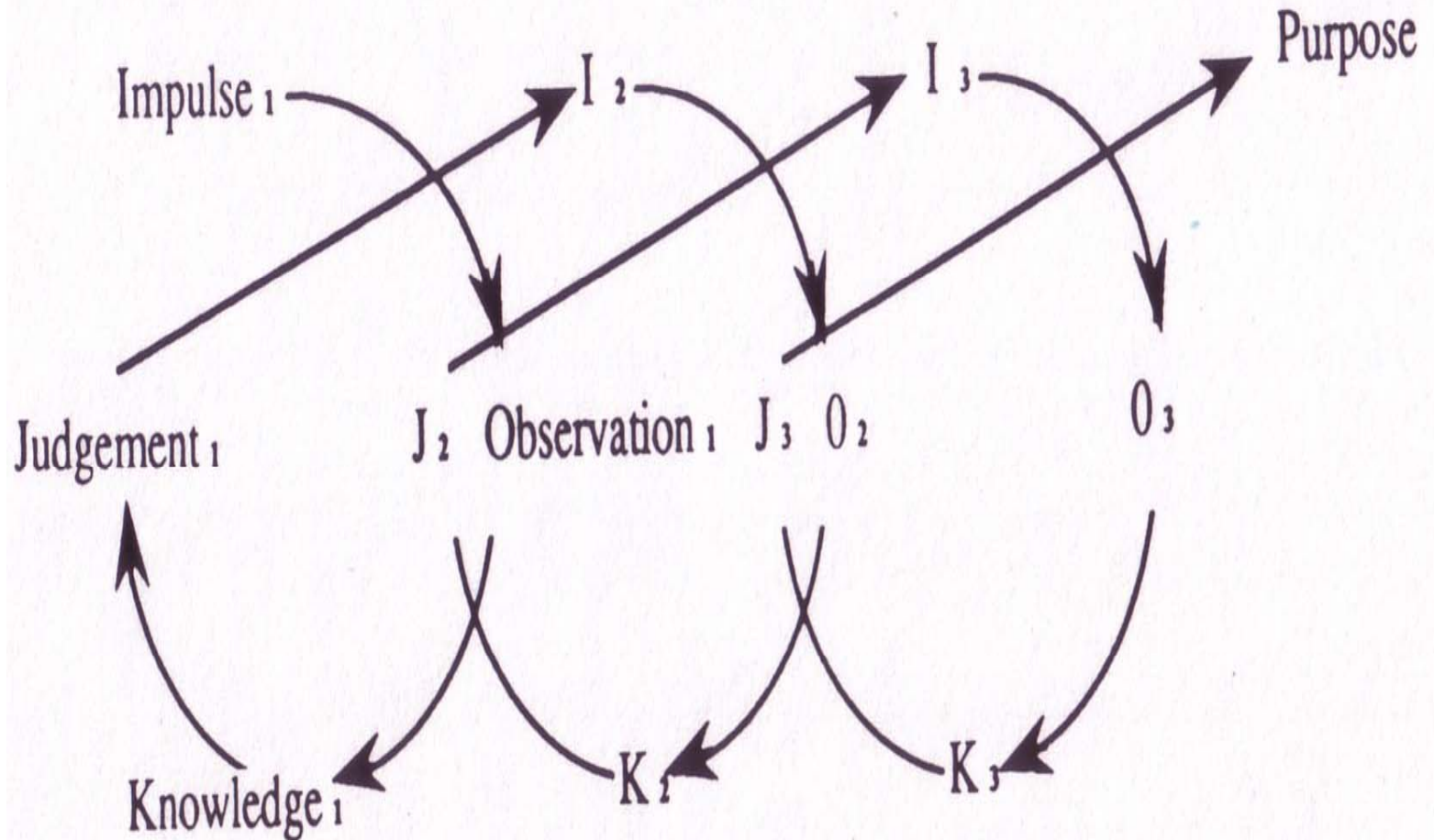
Kolb (1984) p.42

*Experiential Learning as the Process That Links
Education Work and Personal Development*



Kolb (1984) p.4

Dewey's Model of Experiential Learning



Experience (Feeling)

- Learning by experiencing
 - Learning from specific experiences
 - Relating to people
 - Being sensitive to feelings and people
- Learning Situations
 - New experiences, games, role plays
 - Peer feedback and discussion
 - Personalized counseling

Abstract Conceptualization/Generalizing (Thinking)

- Learning by Thinking
 - Logically analyzing ideas
 - Planning systematically
 - Acting on intellectual understanding
- Learning Situations
 - Theory readings
 - Study time alone
 - Clear, well-structured presentation of ideas

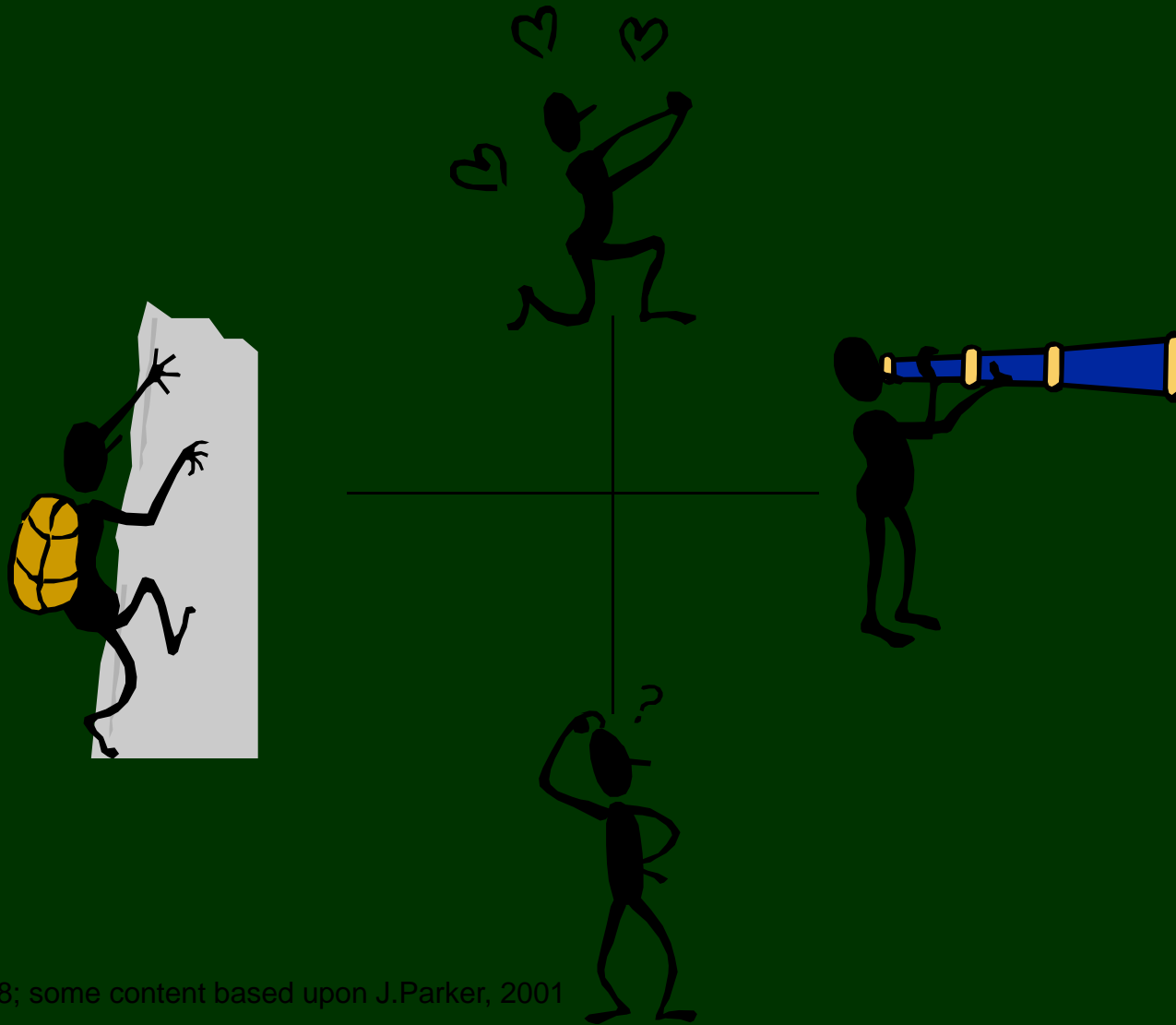
Active Experimentation/Applying (Doing)

- Learning by doing
 - Showing ability to get things done
 - Taking risks
 - Influencing people and events through action
- Learning Situations
 - Opportunities to practice and receive feedback
 - Small group discussions
 - Self-paced learning activities

Reflective Observation (Reflecting)

- Learning by reflecting
 - Carefully observing before making judgments
 - Viewing issues from different perspectives
 - Looking for the meaning of things
- Learning Situations
 - Lectures
 - Opportunities to take observer role
 - Objective tests

Learning Style Quadrants



How to Address Learning Styles

- To ensure that all student learning styles are addressed in a class, include the following sections:

Experiencing

Reflecting

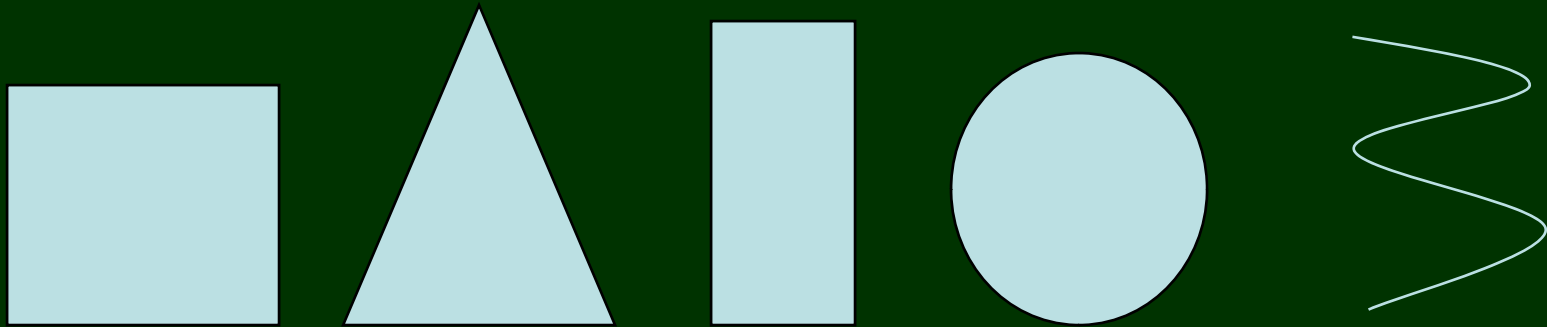
Generalizing

Applying

Learning Styles - Web Sites

- <http://www.learningstyle.com>
- <http://www.ncsu.edu/felder-public/ILSdir/styles.htm>
- http://www.ncsu.edu/felder-public/ILSdir/Zywno_Validation_Study.pdf
- <http://www.ncsu.edu/felder-public/Papers/LS-1988.pdf>
- <http://www.indiana.edu/~intell/map.shtml>
- <http://www.engr.ncsu.edu/learningstyles/ilsweb.html>
- <http://www.indstate.edu/ctl/styles/learning.html#LSHE>

- Select one shape that is most representative of you - the one you relate to most

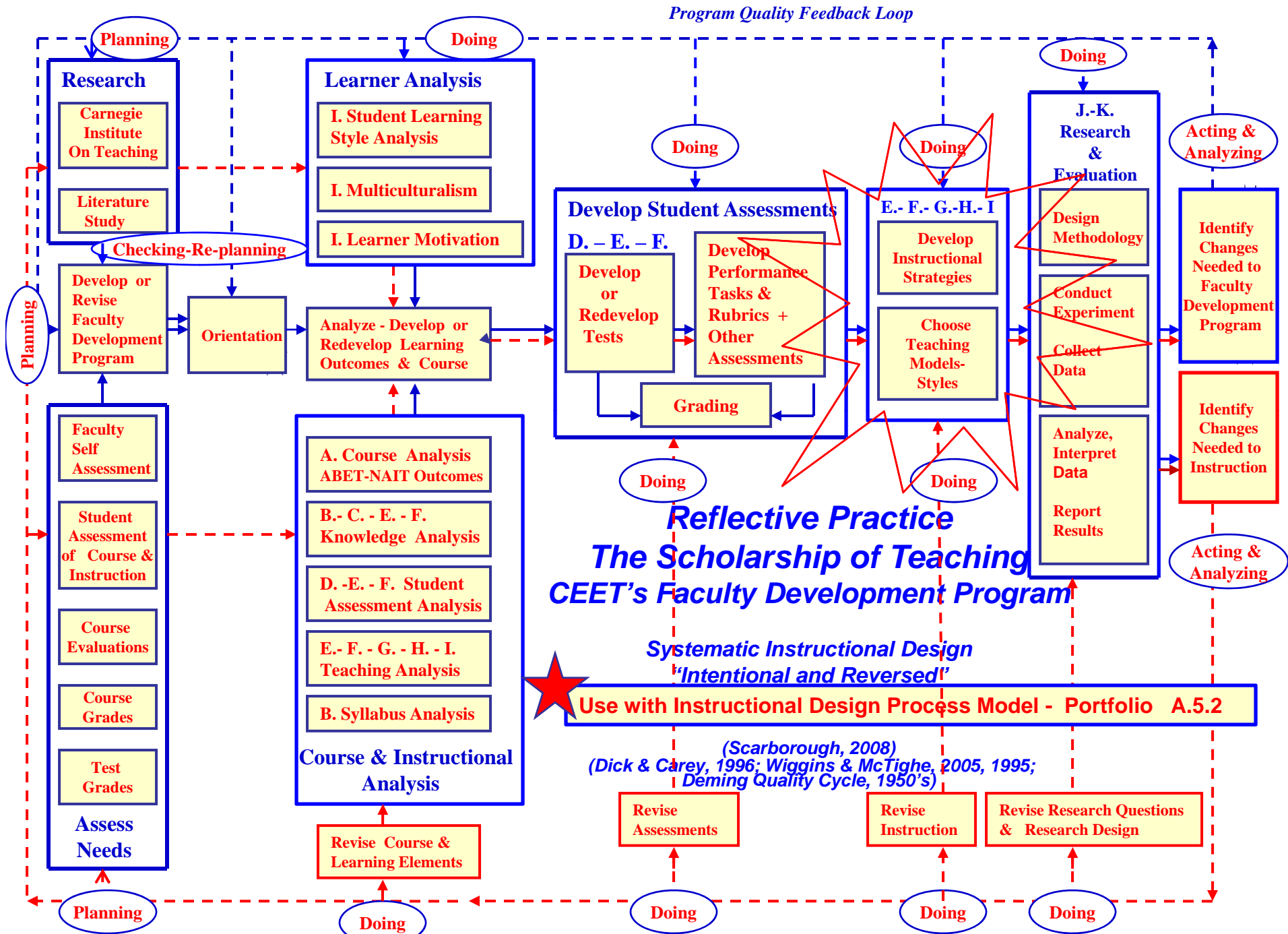


Additional Factors

- There are other factors that influence learning:
 - Stress: slows or inhibits learning
 - Sleep: students need 8 hours of sleep a night

Teaching Styles

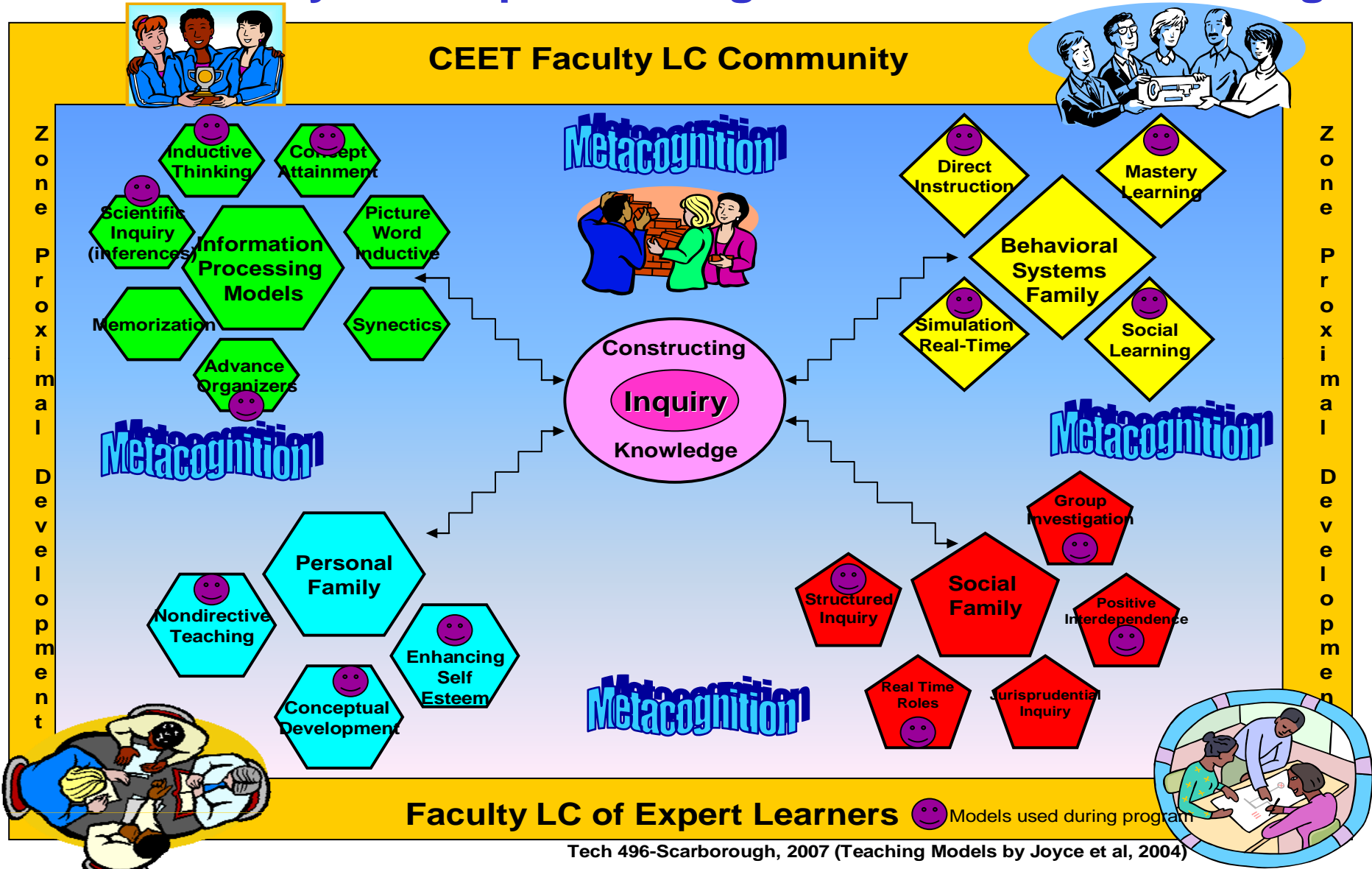
- Just as students are smart in different ways and have different learning styles, we also have different teaching styles



Teaching Models

Joyce, b., Weil, M. with Calhoun, E. (2006) Models of Teaching. Eighth Edition.

CEET Faculty Development Program : Models of Teaching



Why Models?

“Structured, logically consistent,
cohesive...patterns of teaching”

Joyce and Weil (1972)

- Holistic Approach to teaching
- Ties together theory, planning, classroom management, teaching and learning, and assessment

Families of Models



- Information Processing Family
 - Learning to think by thinking
 - Models that increase students' ability to master and organize information, build and test hypotheses etc
- Personal Family
 - Models that focus on personal identity
 - Promote self-awareness and self-understanding

Families of Models



- Behavioral Systems Family
 - Models that take advantage of our ability to modify behavior in response to tasks and feedback
- Social Family
 - Focus on our social nature and how social interaction can enhance learning

Direct Instruction

- Teacher directed and controlled
- Major goal is to maximize student learning time
- High priority on the assignment and completion of academic tasks
- Atmosphere of relatively neutral affect

Direct Instruction cont.

- Orientation
 - Objective, content relationships, procedures
- Presentation -
 - Concept explanation, demonstration
- Structured practice
 - Teacher leads step by step
- Guided practice
- Independent practice

Simulations

- Designed to closely mimic reality
- Complexity can be controlled
- Students become involved in situations similar to life
- Teacher must raise students' consciousness about underlying concepts and principles
- Professional Simulations

Simulations cont.

- Orientation
 - Present concept and topics, explain simulation
- Participant training
 - Set up scenario, assign roles
- Simulation operations
 - Conduct activity, obtain feedback, clarify misconceptions, continue
- Participant debriefing

Inductive Thinking

- Students learn information and concepts through the act of classifying
- Students gather and classify information to build and test hypotheses
- A generic model because classification is applicable to many different disciplines

Inductive Thinking cont.

- Concept Formation
 - Enumeration and listing
 - Grouping
 - Labeling, categorizing
- Interpretation of Data
 - Identifying critical relationships
 - Exploring relationships
 - Making inferences

Inductive Thinking cont.

- Application of Principles
 - Predicting consequences, explaining, hypothesizing
 - Explaining and/or supporting hypotheses
 - Verifying prediction

Concept Attainment

- Challenges students to distinguish a concept by comparing and contrasting positive and negative examples
- Students determine the attributes of a category that already exists

Concept Attainment cont.

- Presentation of data and identification of concept
- Testing attainment of concept
- Analysis of thinking strategies

Inquiry

- Helps students inquire independently but in a disciplined manner
- Specializes in causal reasoning, sharpening tools of scientific inquiry
- Teaches students a process for investigating and explaining phenomena
- Based on a conception of scientific inquiry, this model teaches skills and language of scholarly inquiry

Inquiry cont.

- Confrontation with the problem
 - explain inquiry procedures, present discrepant event
- Data Gathering-verification
- Data Gathering-experimentation
 - isolate variables, hypothesize and test
- Formulating an explanation
- Analysis of inquiry process

Advance Organizer

- Helps teachers organize and convey large amounts of information as meaningfully and efficiently as possible
- Helps students become active learners when they receive information through lectures and written assignments
- Primary means of strengthening cognitive structure and enhancing retention of new information

Advance Organizer cont.

- Presentation of advance organizer
 - identify attributes, give examples, provide context, repeat, prompt awareness of knowledge
- Presentation of Task or Material
 - present material, make logical order explicit, link to organizer
- Strengthen Cognitive Organization
 - integrate, elicit critical approach, clarify, apply

Memory/Mnemonics

- Designed to increase the capacity to store and retrieve information
- Helps students develop strategies for acquiring and remembering information
- Systematic procedures for enhancing memory

Memory/Mnemonics cont.

- Attend to material
 - underline, list, reflect etc
- Develop Connections
 - make material familiar using key-words, substitute words, or link-words techniques
- Expand Sensory Images
 - Ridiculous association or exaggeration
- Practice Recall
 - Practice recall until completely learned

Synectics

- Creative problem solving process using irrational analogies to help develop creative, metaphoric and critical thinking
- Teaches metaphoric thinking
- Consciously breaks from routine thinking to generate new ideas
- Syn - bringing together
- Ectics - diverse elements

Synectics - Creating something new

- Description of present condition
- Direct analogy
- Personal analogy
- Compressed conflict
- Direct analogy
- Re-examination of original task

Synectics - Making the strange familiar

- Substantive input
- Direct analogy
- Personal analogy
- Comparing analogies
- Explaining differences
- Exploration
- Generating analogy

Cooperative Learning

- A teaching arrangement of small groups of students working together to achieve a common learning goal
- Emphasizes team spirit rather than individual competition
- Tasks require that students depend on one another

Jurisprudential

- Helps students learn to think systematically about contemporary issues
- Formulates issues as public policy questions to analyze alternative positions about them
- Provides students with tools for analyzing and debating social issues

Jurisprudential cont.

- Orientation to the case
- Identifying the issues
- Taking positions
- Exploring the stance
- Refining and qualifying positions
- Testing factual assumptions behind positions

Role Play

- Exploring problems through action
- Students explore their feelings, attitudes, and values
- Develops problem solving skills
- Offers opportunity to resolve interpersonal and social dilemmas

Role Play cont.

- Warm up group
- Select participants
- Set the stage
- Prepare the observers
- Enact
- Discuss and evaluate
- Reenact
- Discuss and evaluate
- Share experiences and generalize

Non-Directive

The hard part of figuring out how to teach is
learning when to keep your mouth closed,
which is most of the time

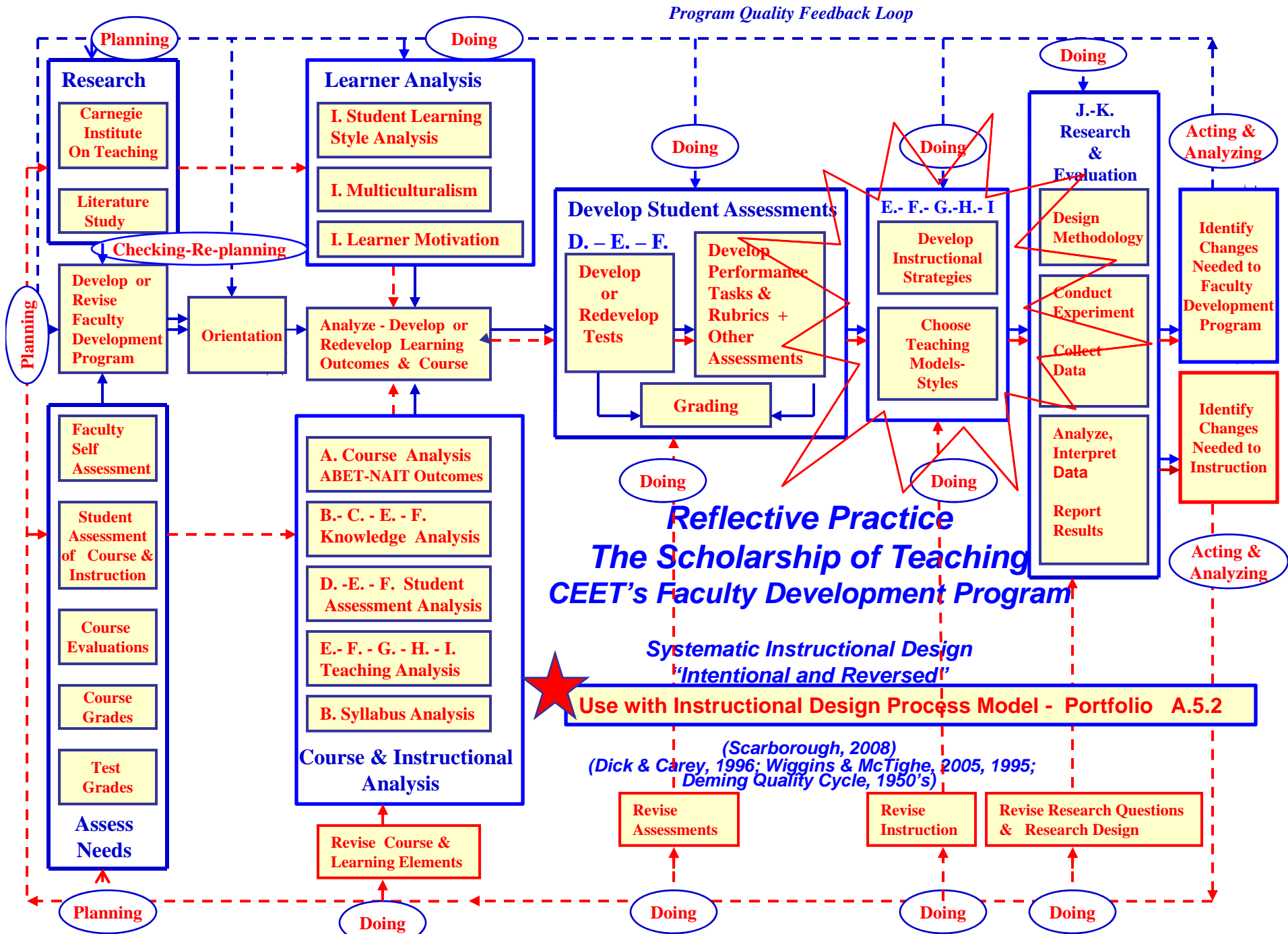
Carl Rogers, about 1960

Non-Directive

- Focuses on facilitating learning
- Teacher-student relationship is more like counselor or learning partner
- Helps students attain greater personal integration, effectiveness, and realistic self-appraisal
- Nurtures students rather than controlling the sequence of learning

Non-Directive cont.

- Defining the helping situation
 - Teacher encourages free expression
- Exploring the problem
 - Student defines, teacher accepts and clarifies
- Developing insight
 - Student discusses problem
- Planning and decision making
 - student plans initial decision making, teacher supports
- Integration



TESA

Teacher Expectation
for
Student Achievement

TESA Interaction Model

- Five units
- 3 strands
 - A: Response opportunities
 - B: Feedback
 - C: Personal Regard
- Each unit contains a strategy from each strand

(Teacher Expectations and Student Achievement. Los Angeles County Office of Education. Downey, California. Los Angeles County Office of Education, 1993.)

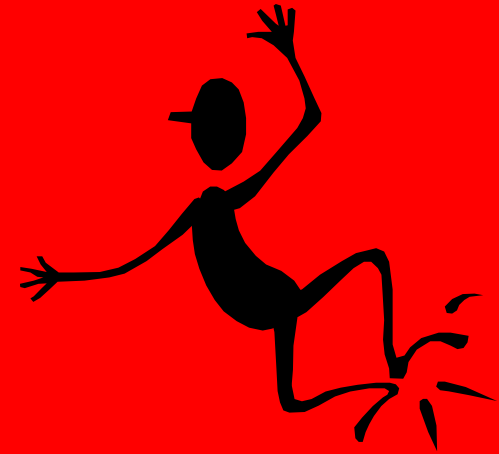
Equitable Distribution of Response Opportunities (1)

- Low achievers are less likely to be called on than high achievers
- Teachers call on male students more frequently than female students



Positive

- When the teacher provides a response opportunity for one of the five students identified as low achievers or one of the five high achievers
-



Negative

- When the teacher unreasonably prohibits a target student from responding or performing



Affirmation or Correction

- The teacher should acknowledge correct responses, or whatever part of the response is correct, and try to elicit additional or improved information



Positive

- When the teacher informs the student who has responded to a question that his/her response or work is or is not acceptable
-



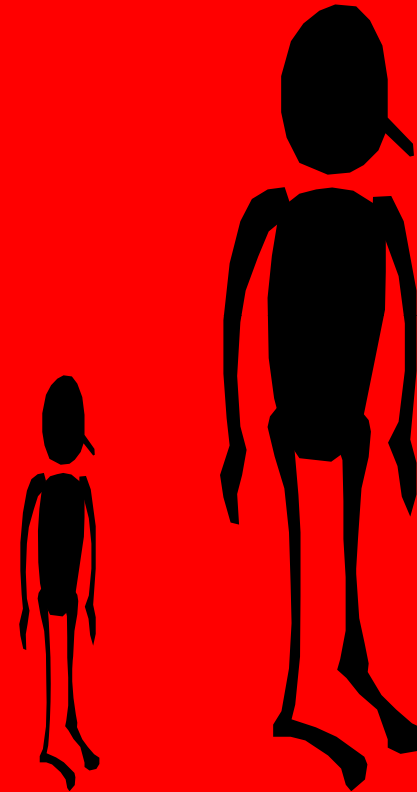
Negative

- When the teacher does not react or comment after a student has responded to a question



Proximity

- Where the student is seated in the classroom: the nearness of the teacher to students



Positive

- When the teacher comes within arm's reach of a target student, whether or not the student is aware of his/her presence
-



Negative

- When the teacher avoids proximity with a target student



Individual Helping (2)

- To provide academic assistance to one student at a time
- Teachers should try to provide individual help to low achievers as frequently as other students



Positive

- When the teacher gives individual assistance to a student



Negative

- When the teacher ignores the students attempt to obtain teacher help



Praise

- Verbal and nonverbal feedback of a student's performance
- Teachers are less likely to praise perceived low achievers and more likely to criticize them for incorrect public responses



Positive

- When the teacher praises the student's learning performance



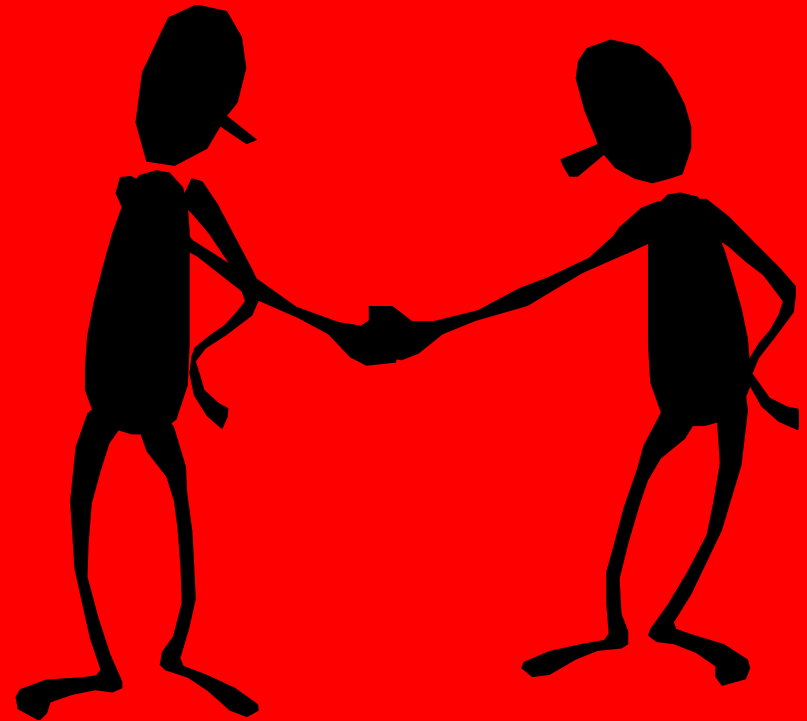
Negative

- When the teacher criticizes the student's performance in a sarcastic or demeaning manor



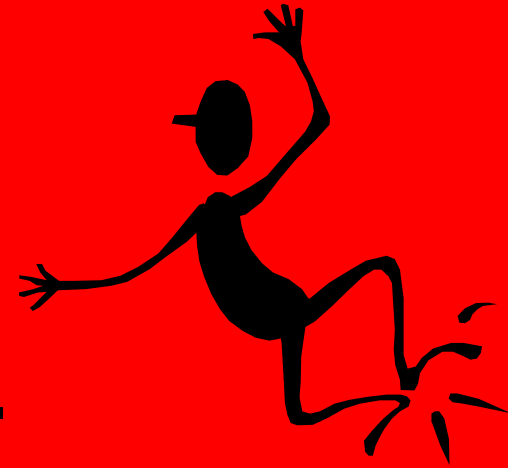
Courtesy

- Respect of and for another; politeness
- Use courteous words as frequently with low achievers as with other students and as frequently with all students as with adults



Positive

- When the teacher uses expressions of courtesy in interaction with the student
-



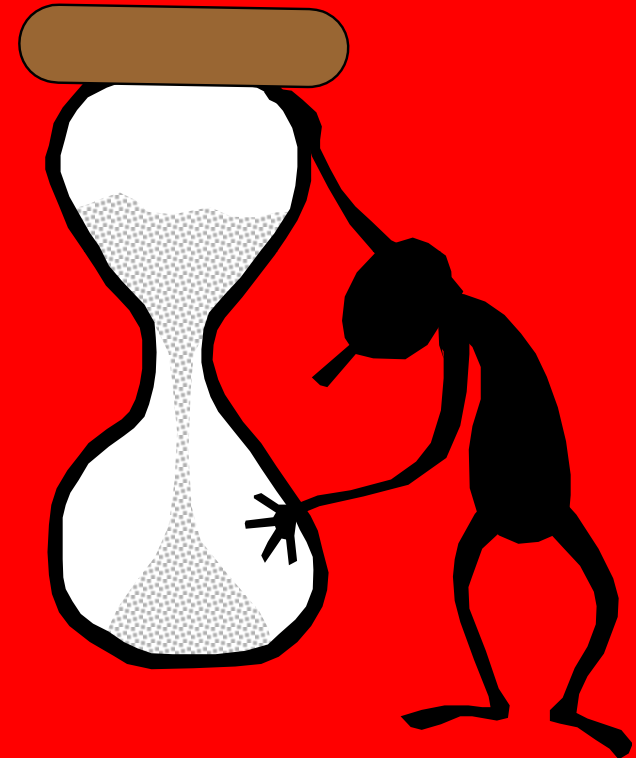
Negative

- When the teacher behaves toward the student in a disrespectful manner that would not be characteristic of the teacher's behavior towards adults



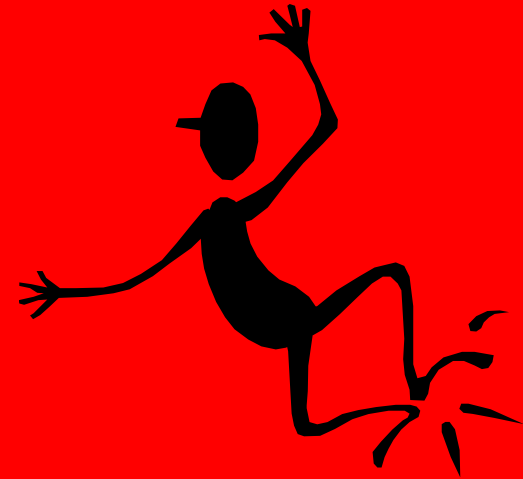
Latency (3)

- “Wait time”: the time that elapses between asking a question and terminating the response opportunity



Positive

- **When the teacher allows the student enough time to think the question over before the teacher terminates the response opportunity or attempts to assist the student**



Negative

- **When the teacher allows the student less than five seconds to respond**



Reasons for Praise

- According to Brophy(1986), students should be praised when they:
 - **have made genuine progress;**
 - **may not realize or appreciate their accomplishments;**
 - **respond well to praise**



Positive

- When the teacher gives a reason for praising a student's learning performance
-



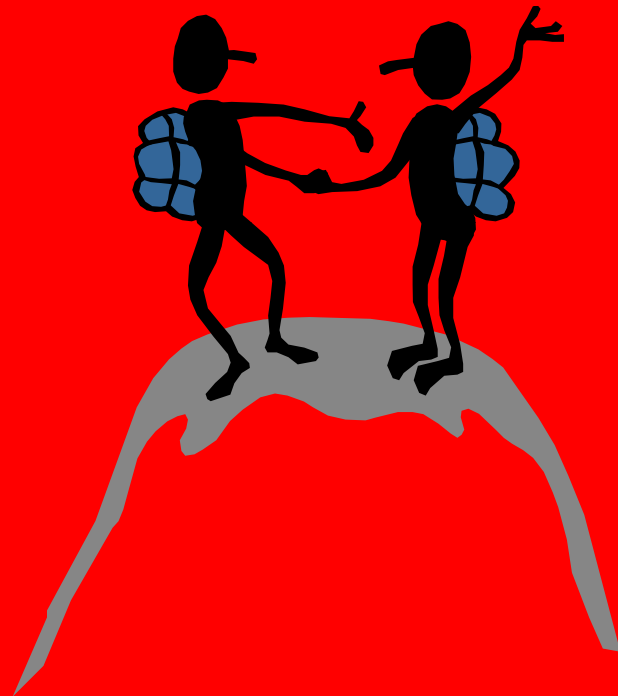
Negative

- When the teacher is sarcastic or gives insincere praise



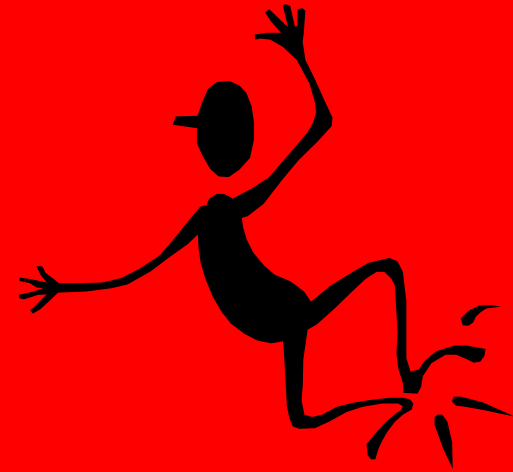
Personal Interest Statements and Compliments

- The teacher gives compliments or makes statements relating to a student's personal interests in recognition of students behaviors that are extraneous to the instructional tasks



Positive

- When the teacher asks questions, compliments, or makes statements relating to the student's personal interests or experiences
-



Negative

- When the teacher negatively curtails or belittles the student's attempt to tell about a personal interest or activity



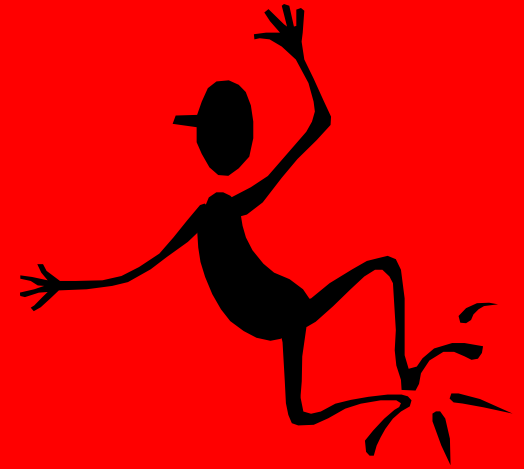
Delving, Rephrasing, Giving Clues (4)

- To help all students to respond to questions by providing them additional information



Positive

- When the teacher provides any additional information verbally or nonverbally to help the student respond to a question



Negative

- When the teacher terminates the response opportunity of a student who has not responded or whose answer was inadequate without rephrasing the question, providing additional information, or delving in some way



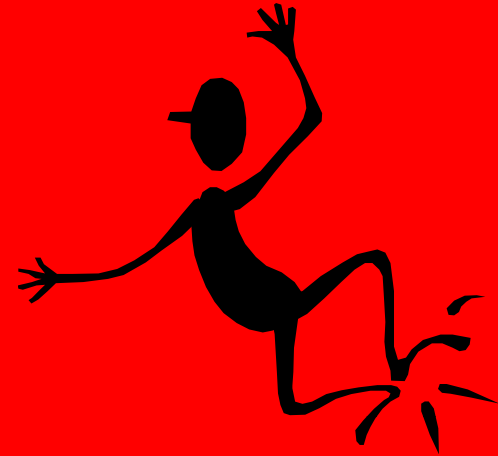
Listening

- The Rule of Two-Thirds states, that in the average classroom, someone is talking $\frac{2}{3}$ of the time. Two-thirds of that time, the person talking is usually the teacher.



Positive

- When the teacher maintains eye contact with the student or indicates to the student that the response was heard



Negative

- When the teacher is inattentive to a student whose verbal communication has been invited or permitted



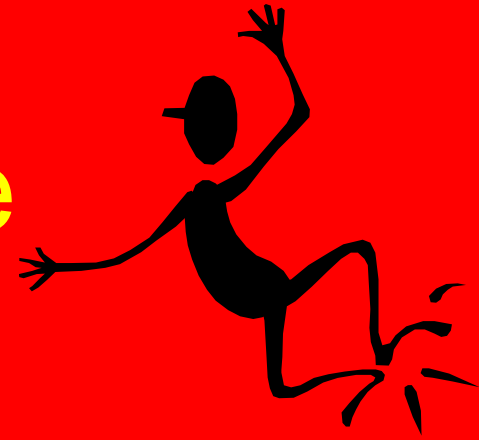
Touching

- Touching is a form of communication (for example, a pat on the back to show approval or congratulations)



Positive

- **When the teacher touches the student in a friendly manner**



Negative

- **When the teacher rejects the student's attempt to touch the teacher or uses touch as punishment**



Higher-Level Questioning (5)

- To ask a question that stimulates a student's cognitive reasoning skills
- Higher-level questioning strategies provide opportunities for all students to think



Positive

- When the teacher asks the student a question that requires him/her to do something more than merely remember the answer from reading, previous teacher instruction, or another source
-



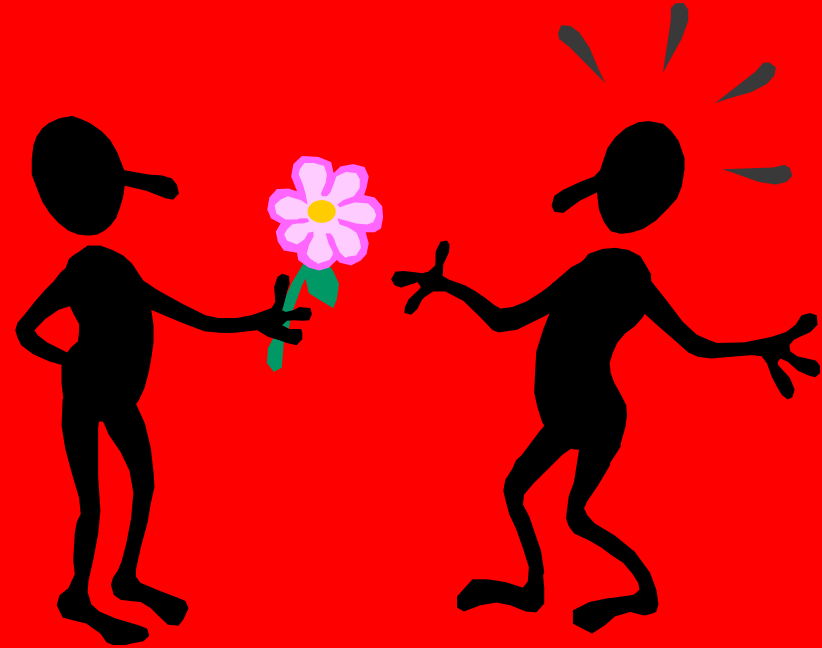
Negative

- When the teacher implies or states that questions are either easy or difficult



Accepting Feelings

- Receptive responses by a teacher showing that he/she recognizes the feelings underlying a particular behavior and acknowledges them



Positive

- When the teacher recognizes and accepts a student's feelings in a non-evaluative manner



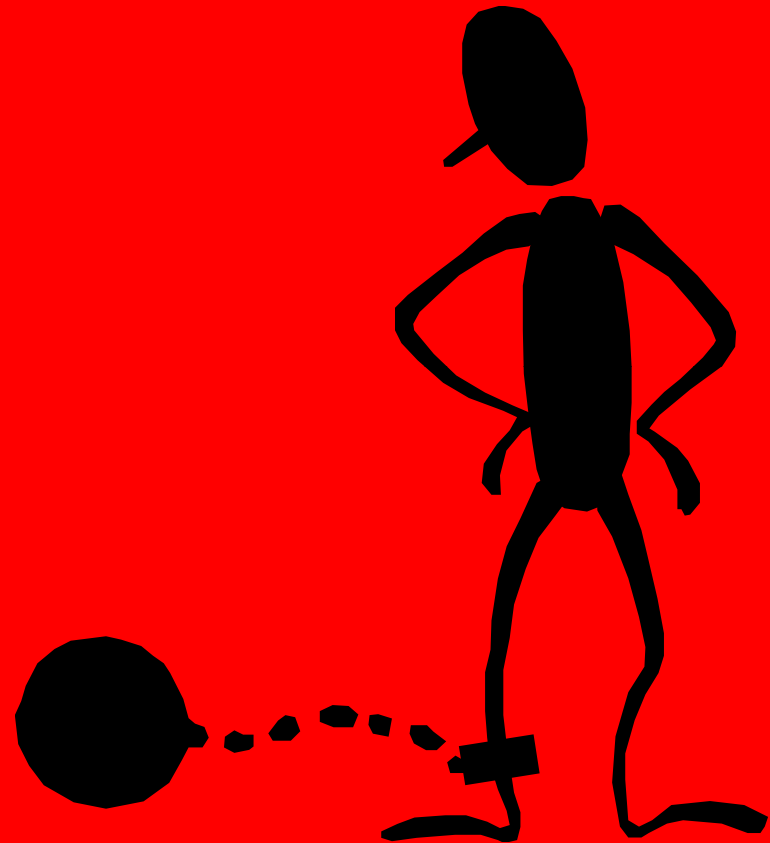
Negative

- When the teacher discourages or disparages a student's feelings



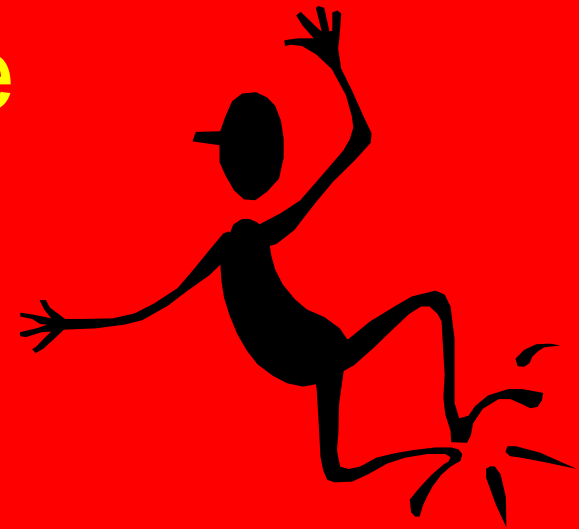
Desisting

- “a teacher’s doing something to stop a misbehavior” : in other words, a disciplinary action by the teacher



Positive

- When the teacher asks a student to desist from a behavior in a calm, courteous manner that does not put the student down and does not imply that misbehavior was expected of him/her
-



Negative

- When the teacher insults the student or vents anger and hostility on the student in dealing with misbehavior



Teaching Standards

- Teaching standards for your discipline are in your packets
- Ask yourself the following questions:
 - Do I meet the standards of good teaching in my discipline?
 - What are my strengths and which areas do I need to develop?
- Meet as a discipline and discuss your answers
 - Collectively, what do your answers mean for your students?