

A photograph of a large, ornate, light-colored stone building with a prominent central tower and multiple smaller towers, set against a blue sky with white clouds. The building is surrounded by green lawns and trees. In the foreground, there is a garden with various colorful flowers, including yellow and pink ones.

# *Teaching*

*Teaching Models and Styles*

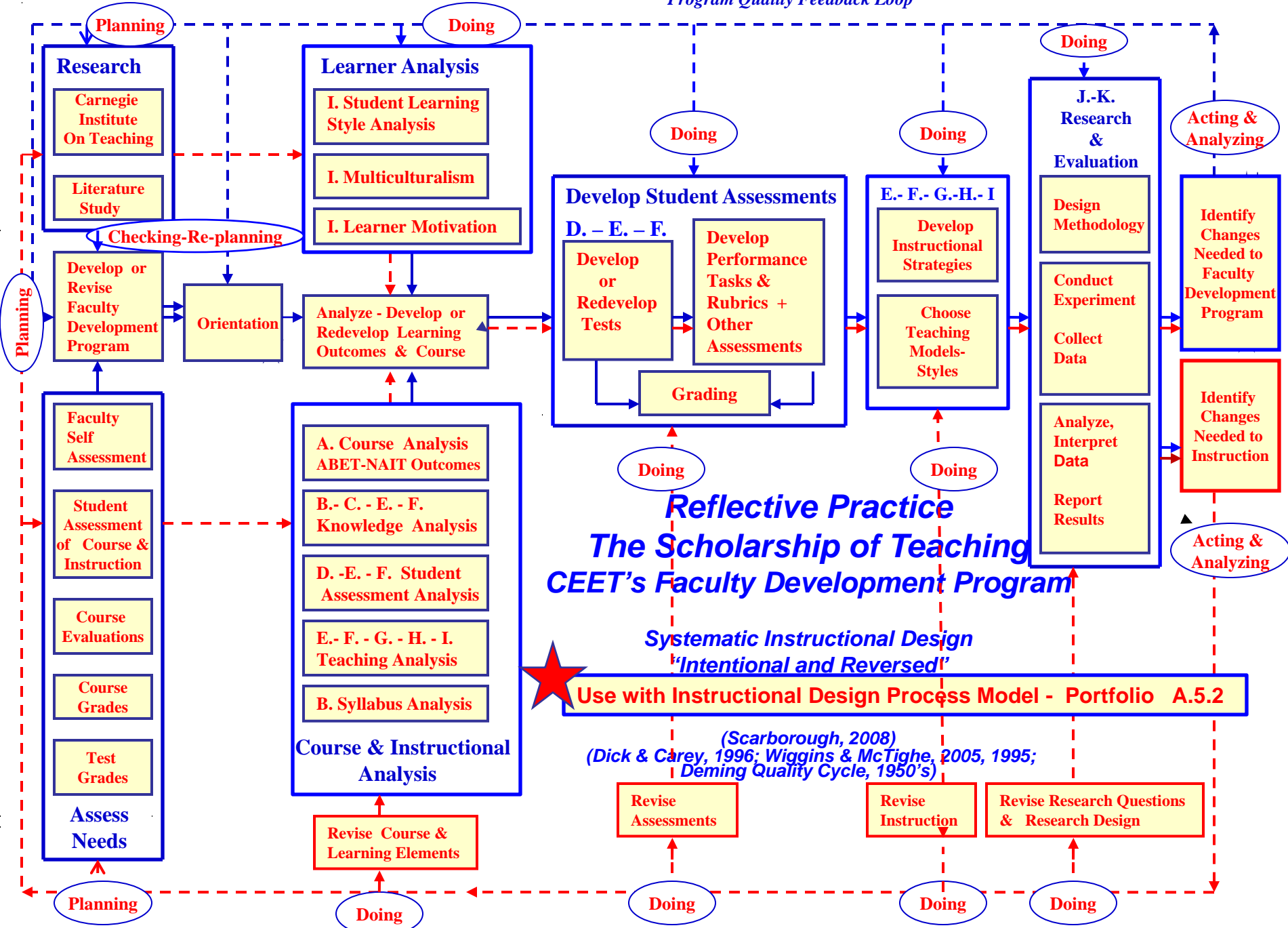
*Learning Styles*

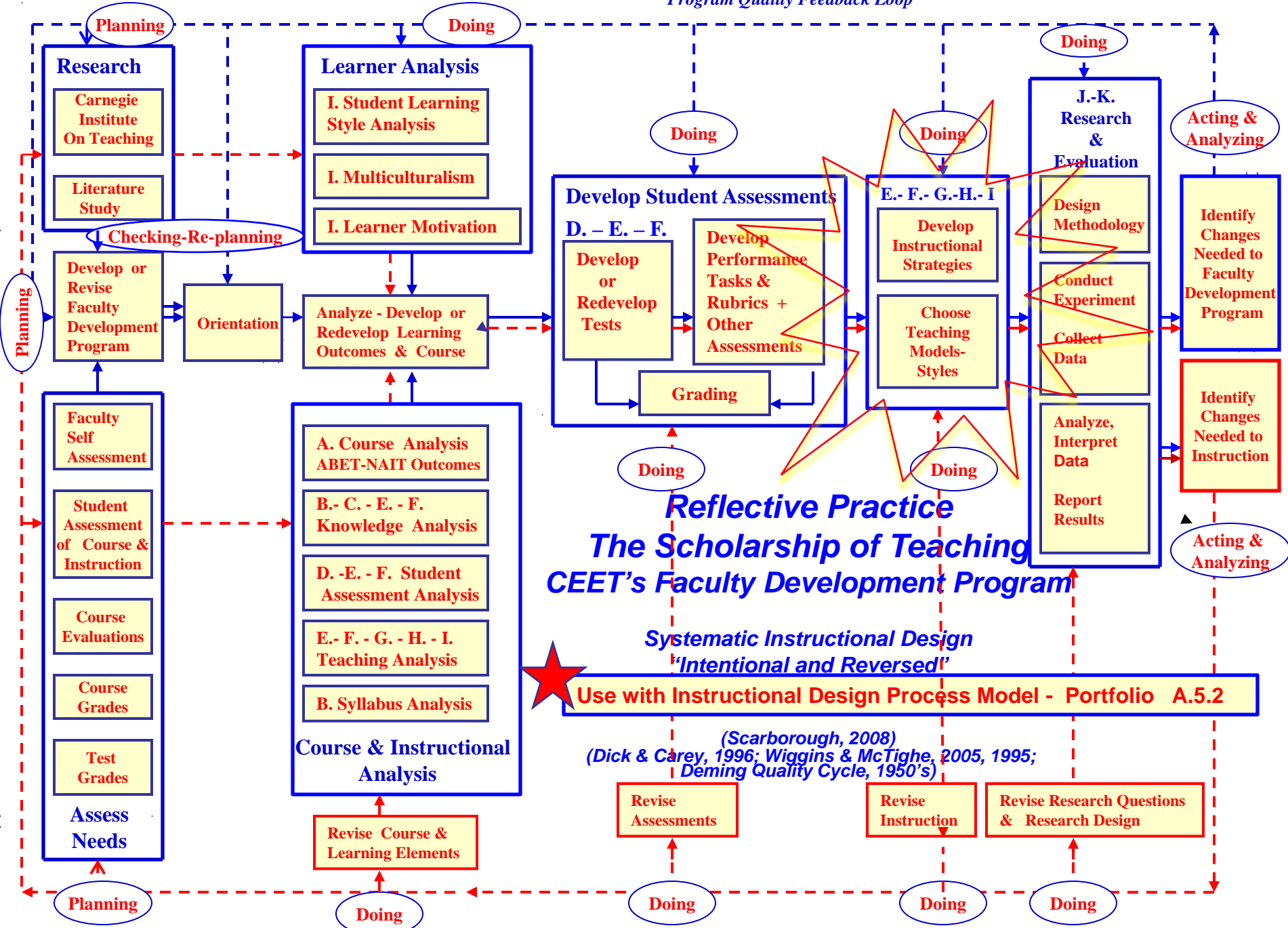
*TESA*

*Northern Illinois University*

# Table 1.5 A Summary of The Seven Principles of Good Practice

| Principle  | Behavioral indices   |
|--|--|
| <p><b>Good practice encourages student–faculty contact:</b> Frequent contact in and out of classes</p>   | <p>Remembering students’ names<br/>           Involving students in lab and field research projects<br/>           Taking students to conventions, regional conferences<br/>           Disclosing personal values, when appropriate<br/>           Attending student-sponsored events<br/>           Mentoring and informal advising</p>   |
| <p><b>Good practice encourages cooperation among students:</b> Collaborative, noncompetitive learning in small groups and student-to-student networks</p>                    | <p>Encouraging self-disclosure to one another<br/>           Facilitating the formation of study groups<br/>           Assigning group projects<br/>           Using peer evaluation techniques when grading<br/>           Teaching through group discussion<br/>           Promoting student-to-student tutoring/teaching<br/>           Grading by criteria and not by interstudent comparison</p>  |
| <p><b>Good practice encourages active learning:</b> Teaching methods that require more than passive listening and note taking from students</p>                              | <p>Requiring class presentations<br/>           Assigning papers and projects that promote critical thinking<br/>           Asking students to integrate contemporary events with course material, discussing real-life cases, etc.<br/>           Assigning term projects and independent studies</p>   |
| <p><b>Good practice gives prompt feedback:</b> Assessment of baseline knowledge, frequent testing of progress in learning, and global assessment of educational outcomes</p> | <p>Involving students in research<br/>           Giving quizzes and homework assignments<br/>           Returning examinations and papers within a week<br/>           Providing feedback to students early in the term<br/>           Writing comments on exams and papers<br/>           Pretesting students</p>   |
| <p><b>Good practice emphasizes time on task:</b> Setting appropriate time demands and helping students learn to manage their time</p>  | <p>Calling or e-mailing students who miss classes<br/>           Establishing deadlines for completing assignments<br/>           Discussing course demands with students<br/>           Helping students set challenging goals<br/>           Encouraging practice runs before oral reports<br/>           Stressing self-regulation, studying, and attendance</p>  |
| <p><b>Good practice communicates high expectations:</b> Setting reasonable but high standards for achievement</p>  | <p>Meeting with students who fall behind<br/>           Warning students about time commitment to the course<br/>           Stressing high standards of achievement<br/>           Establishing performance expectations orally and in writing<br/>           Helping students set challenging goals<br/>           Explaining penalties for missed or late work<br/>           Assigning writing<br/>           Calling attention in class to excellence by class members</p> |
| <p><b>Good practice respects diverse talents and ways of learning:</b> Providing a variety of learning experiences and assessment options</p>                                | <p>Encouraging questions<br/>           Discouraging off-task, divisive comments<br/>           Using a variety of teaching methods<br/>           Discussing the contributions of women and minority psychologists<br/>           Developing and using alternative teaching methods<br/>           Exploring students’ backgrounds, learning styles, and outlooks</p>   |





# 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

Increase apathy and resentment

**CHOICES**

**VS**

**REQUIRED**

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

Directed 100%, no student input, resources restricted

**RELEVANT**

**VS**

**IRRELEVANT**

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

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

**ENGAGING**

**VS**

**PASSIVE**

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

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?

# 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

# 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

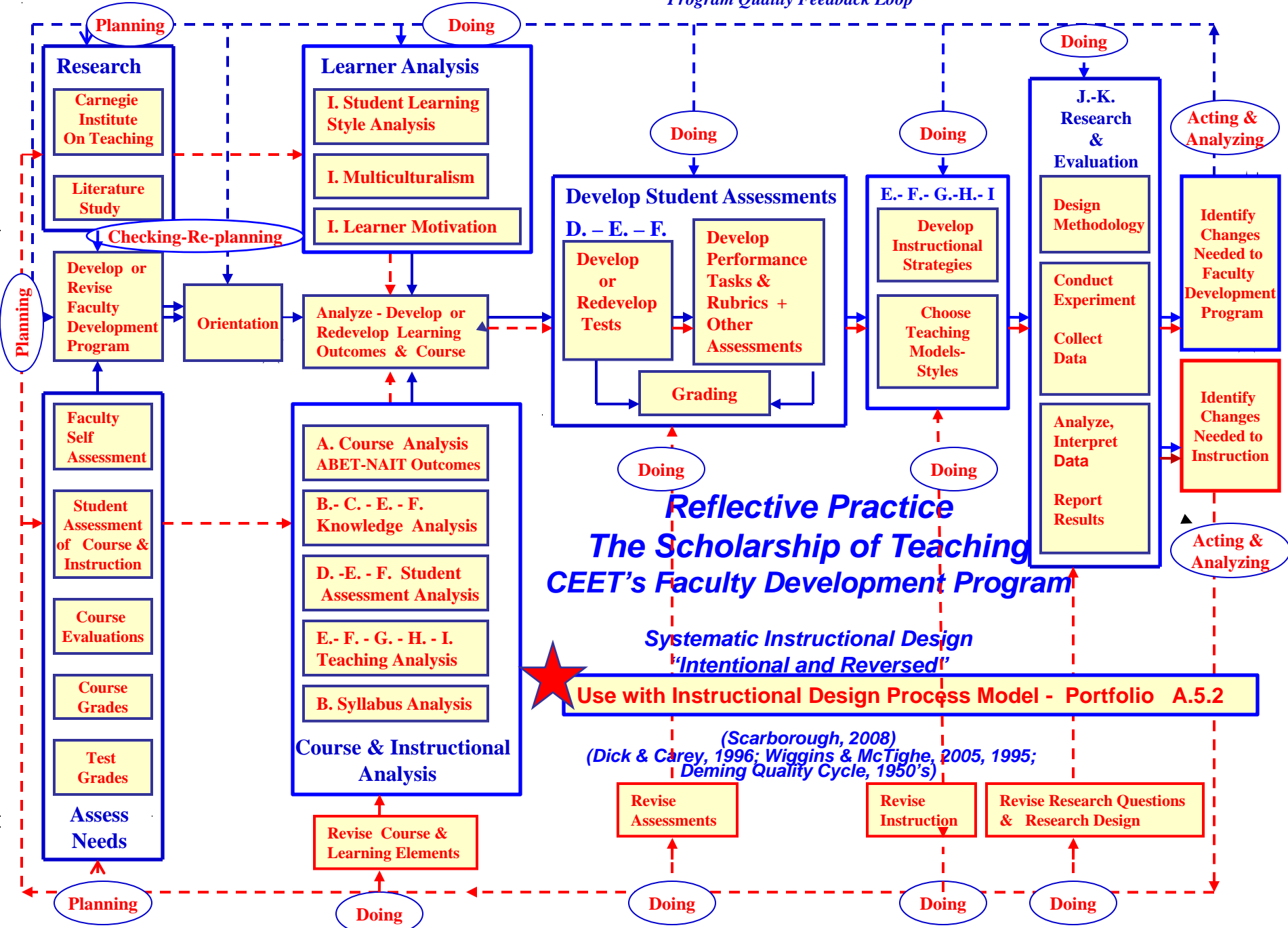
- authentic, offering “real” history etc not just exercise about the subject
- can be used immediately for something that matters to the students
- makes students more powerful in the present and the future

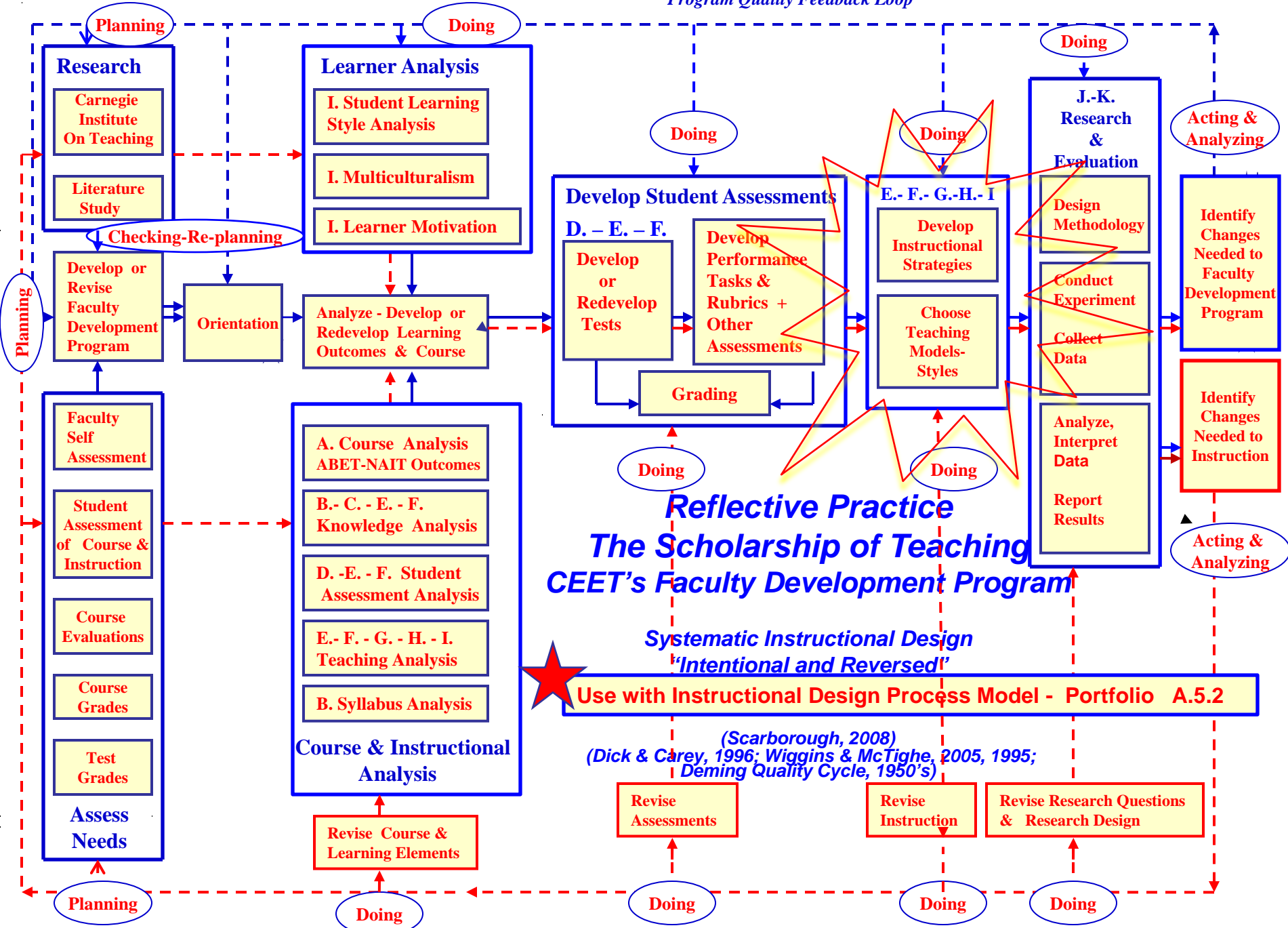
# Creating a Healthy Classroom

- 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

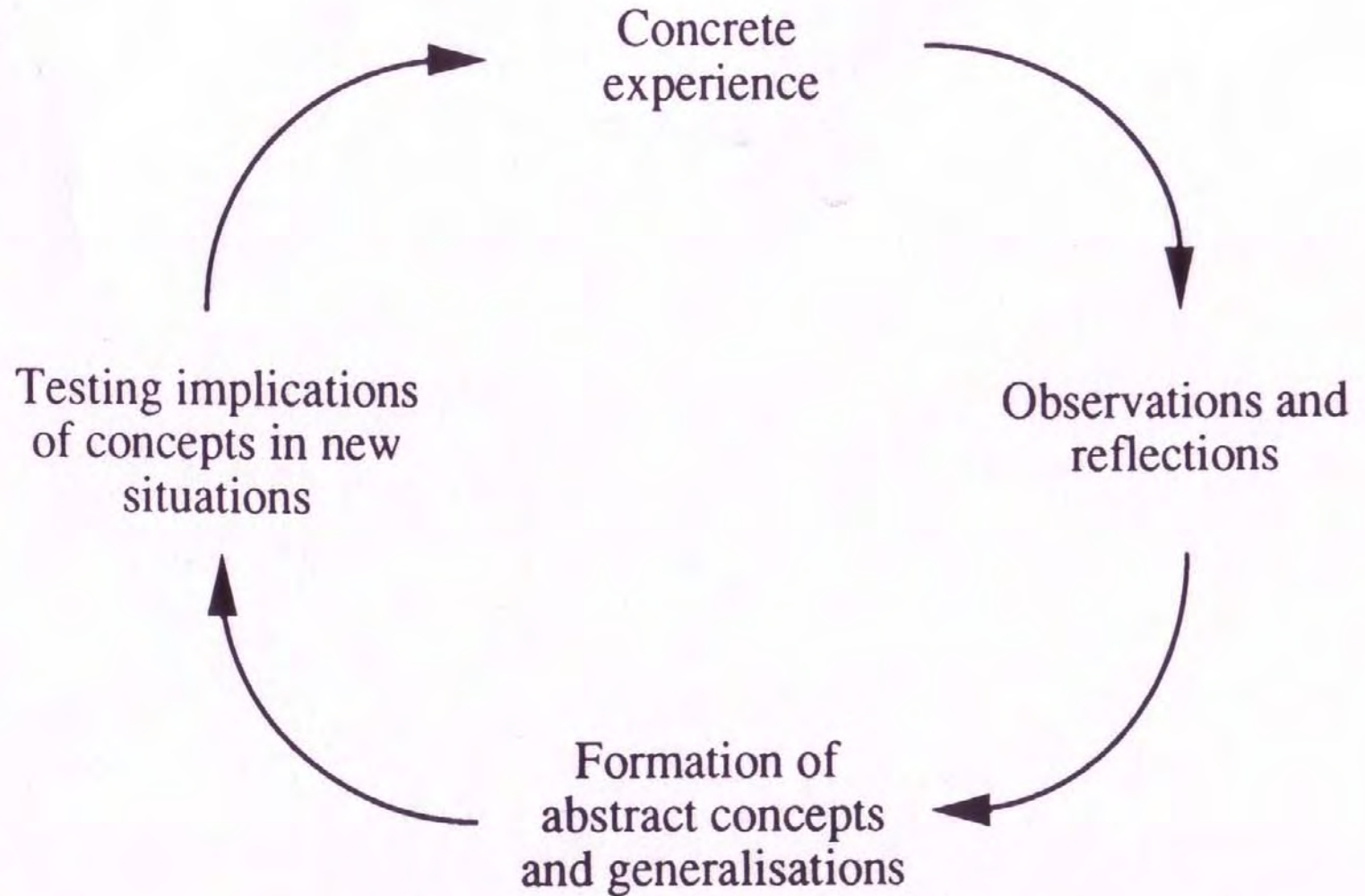




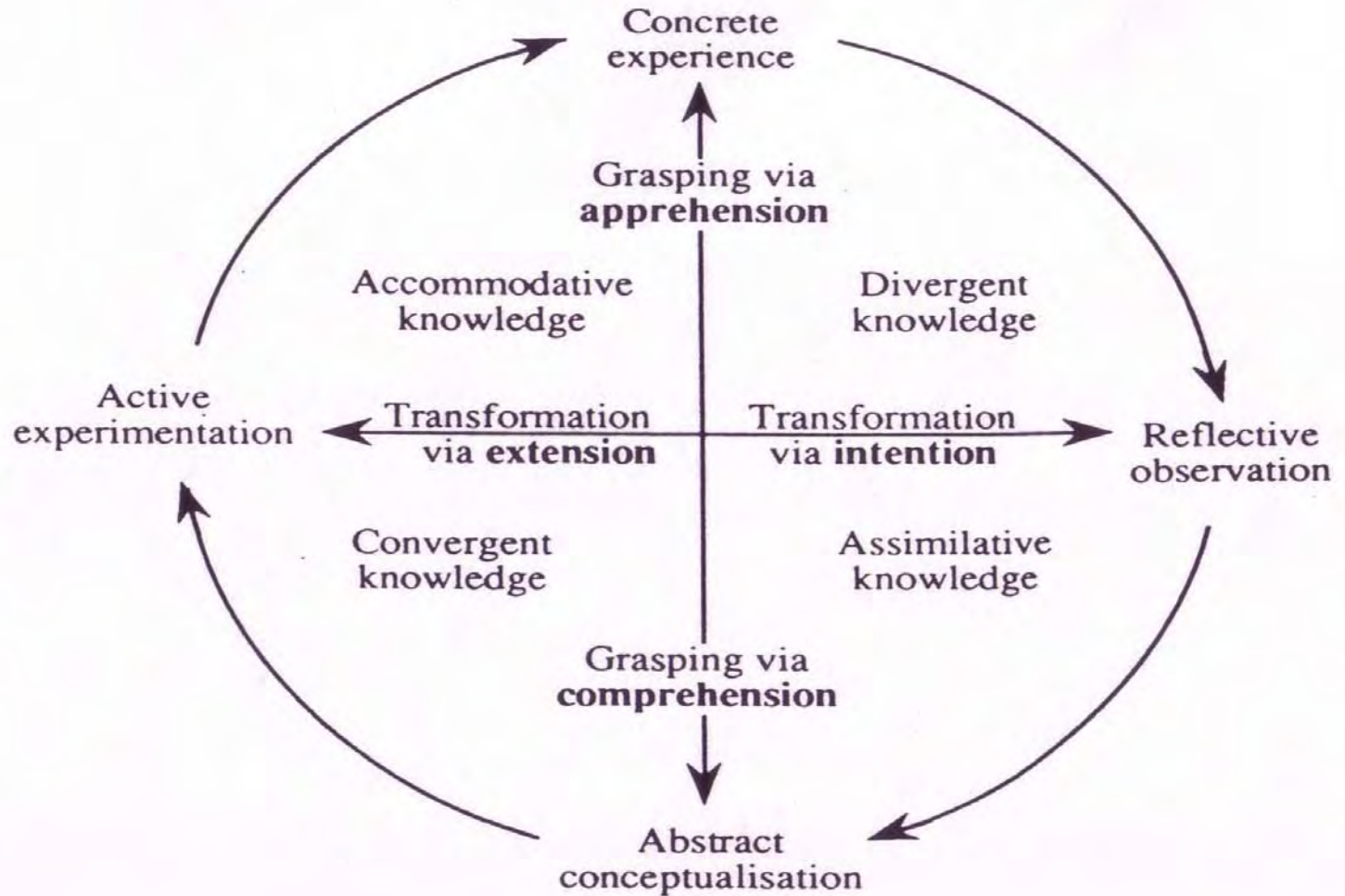
# Learning Styles (David A. Kolb, 1999)

- 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*

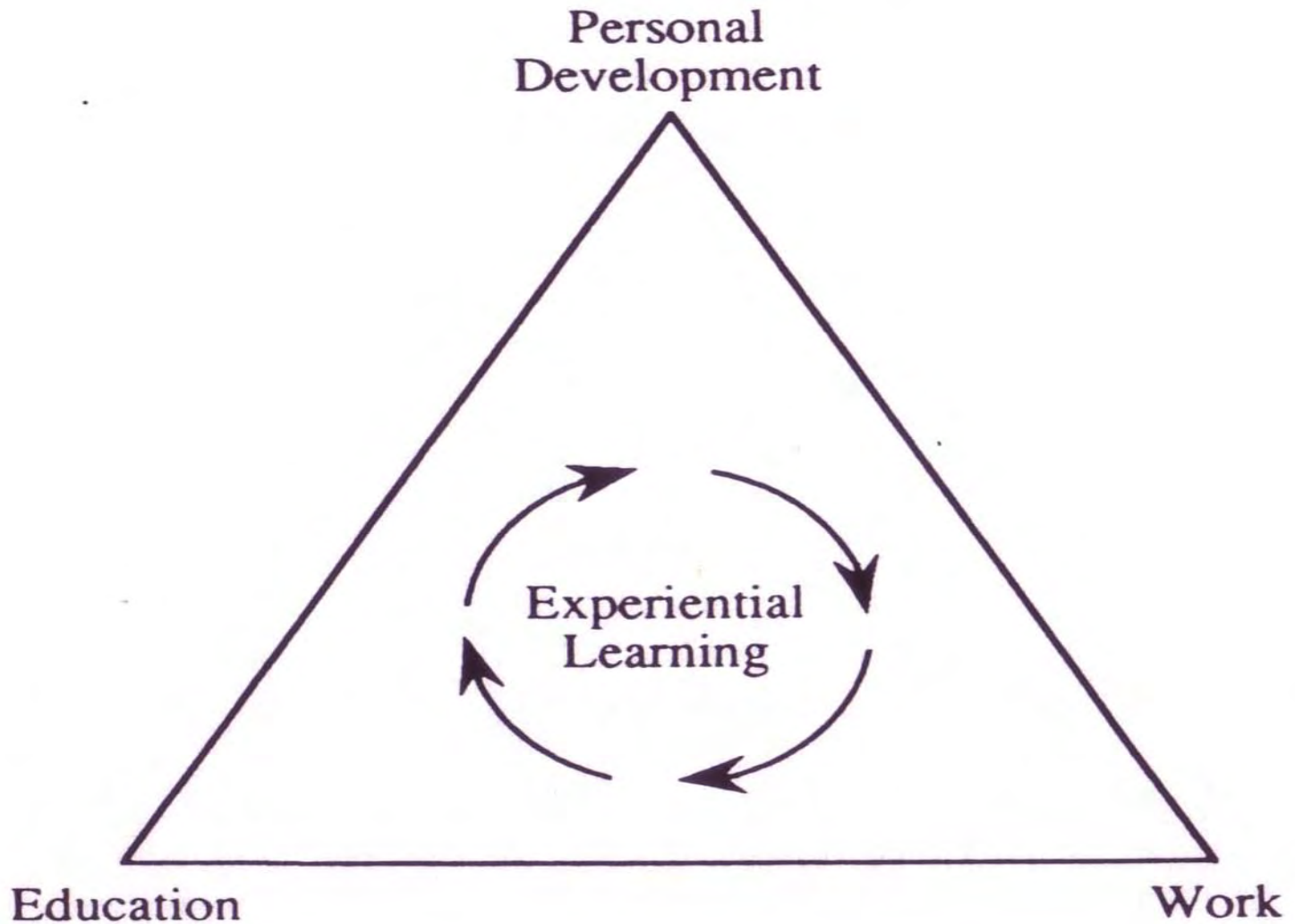


# *Kolb's Model of Experiential Learning*



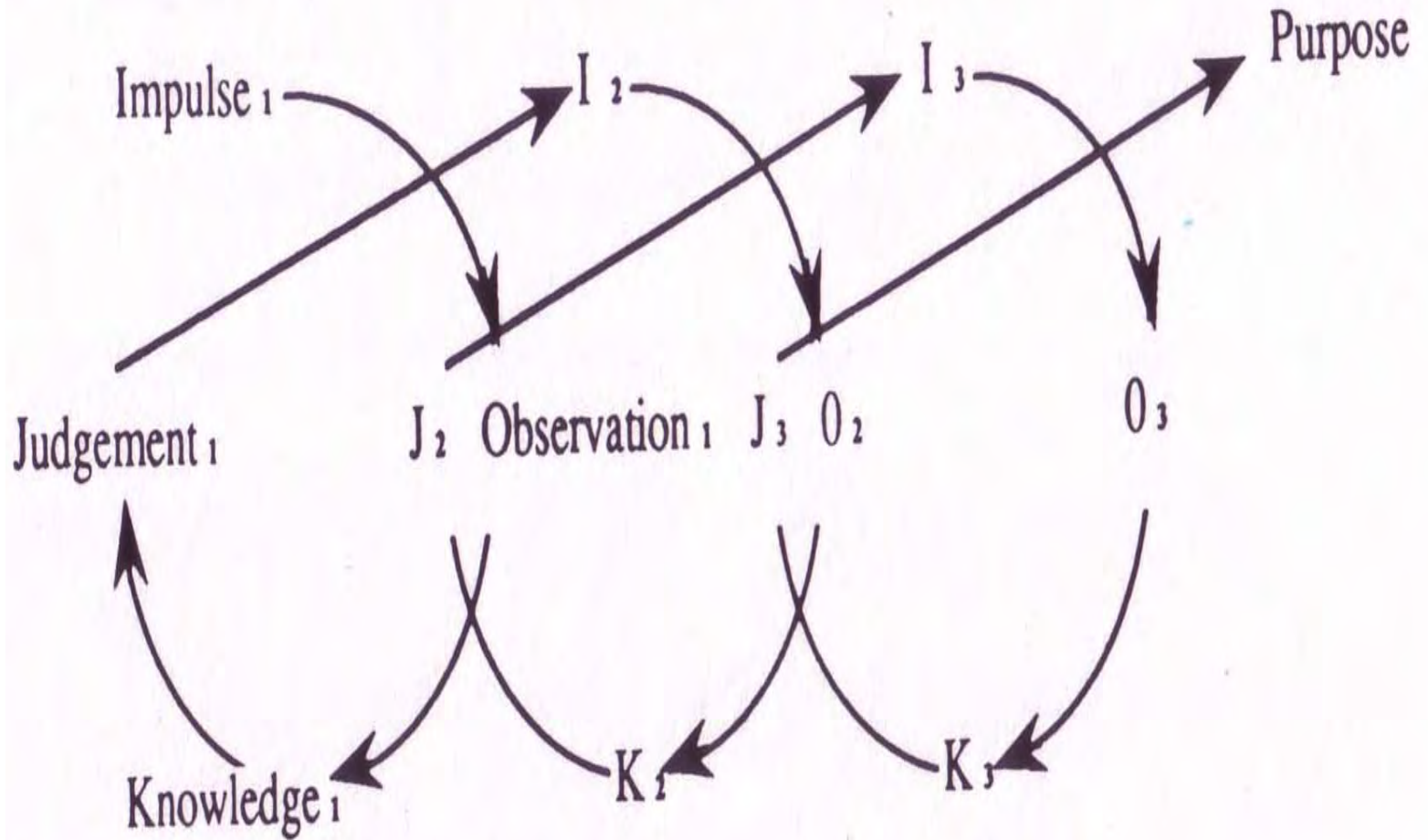
*Kolb (1984) p.42*

# *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

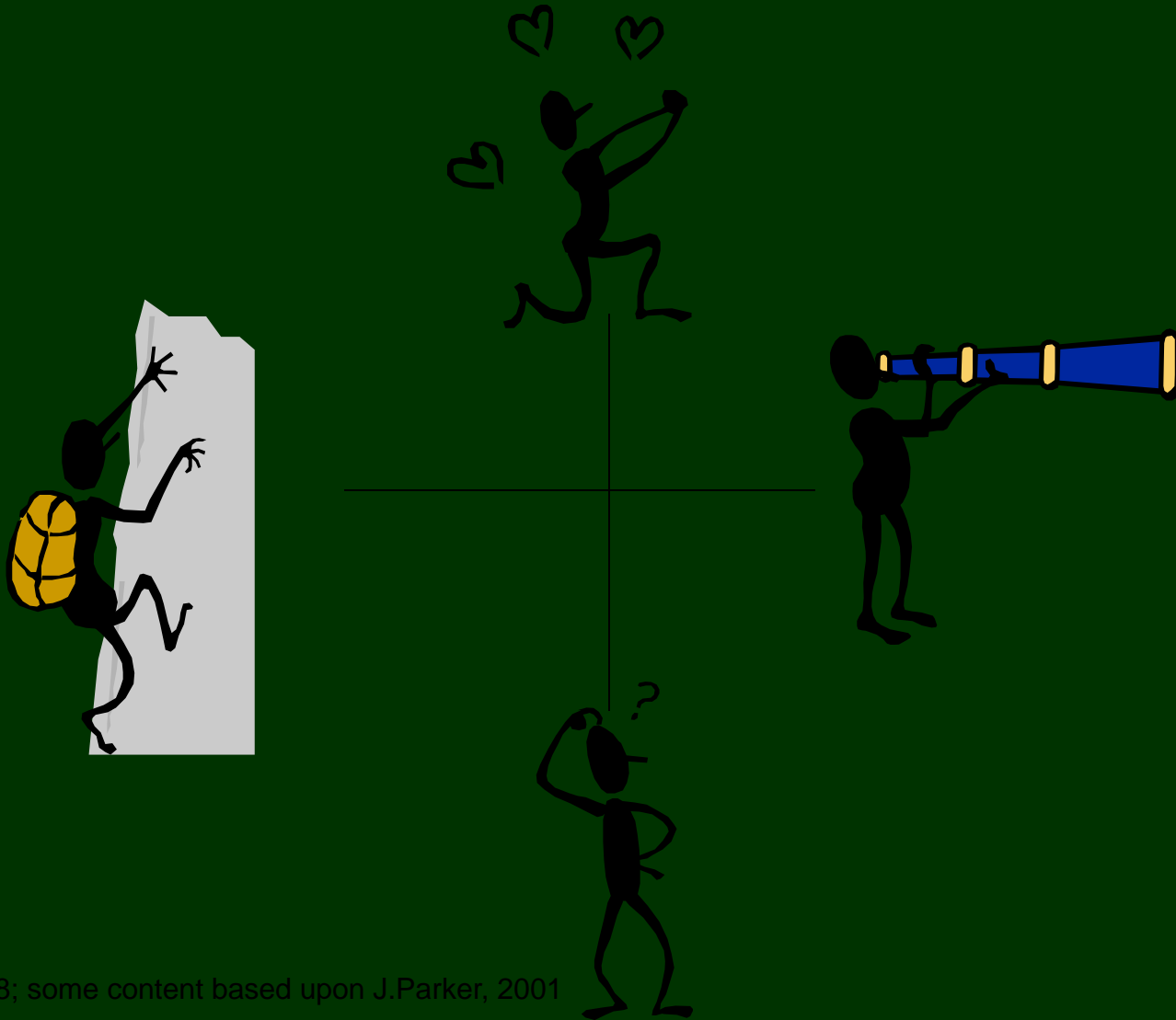
# Active Experimentation/Applying (Doing)

- 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

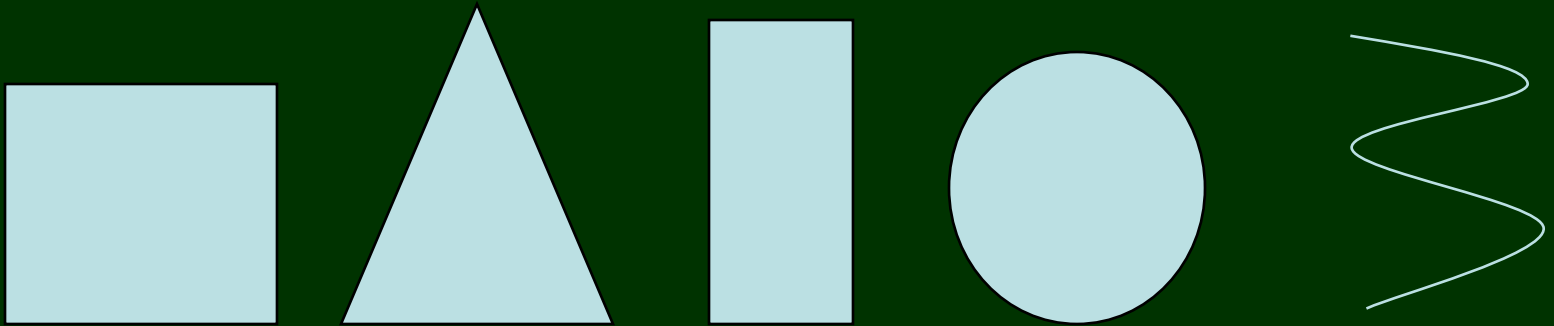
Generalizing

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/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

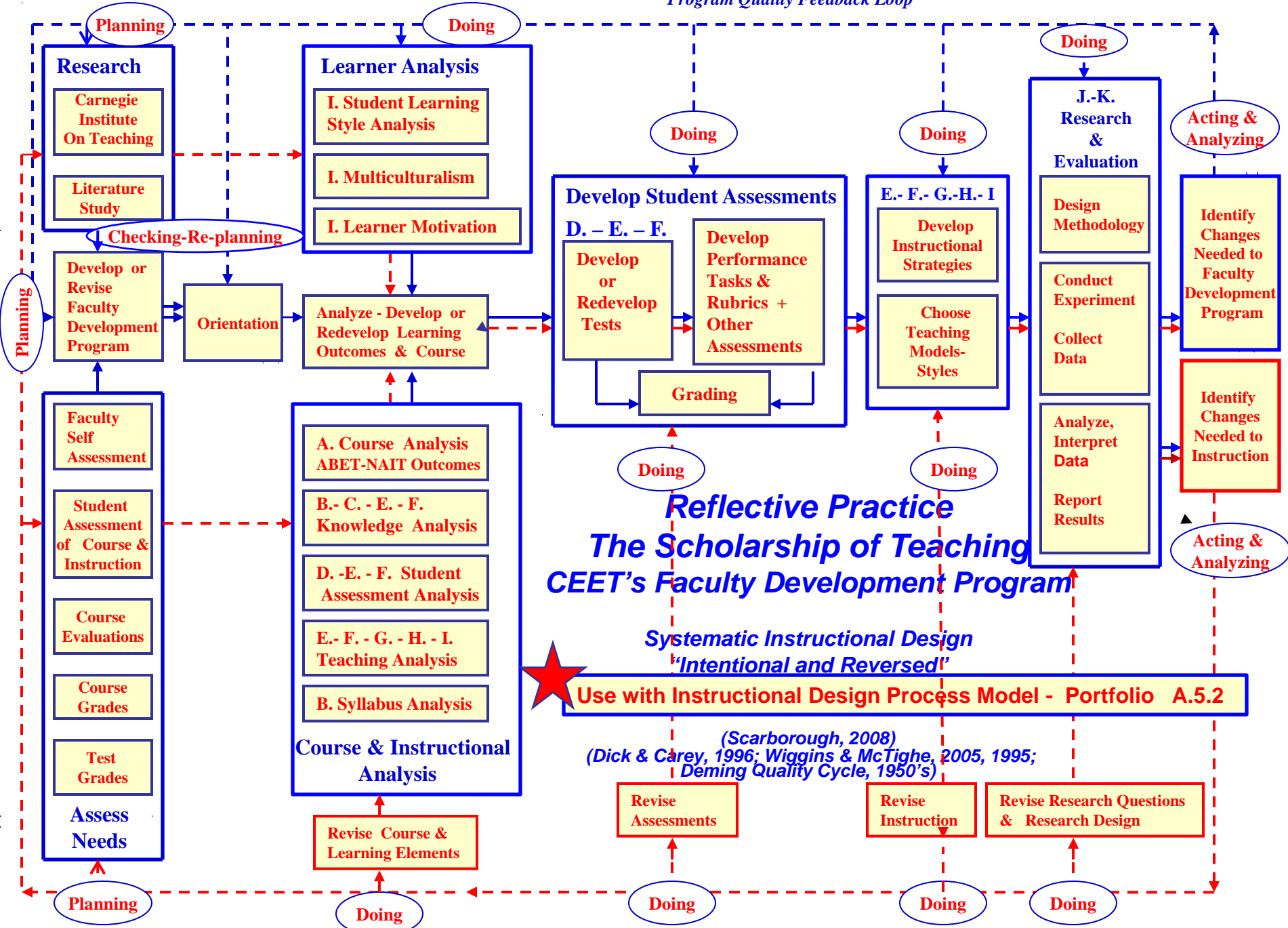


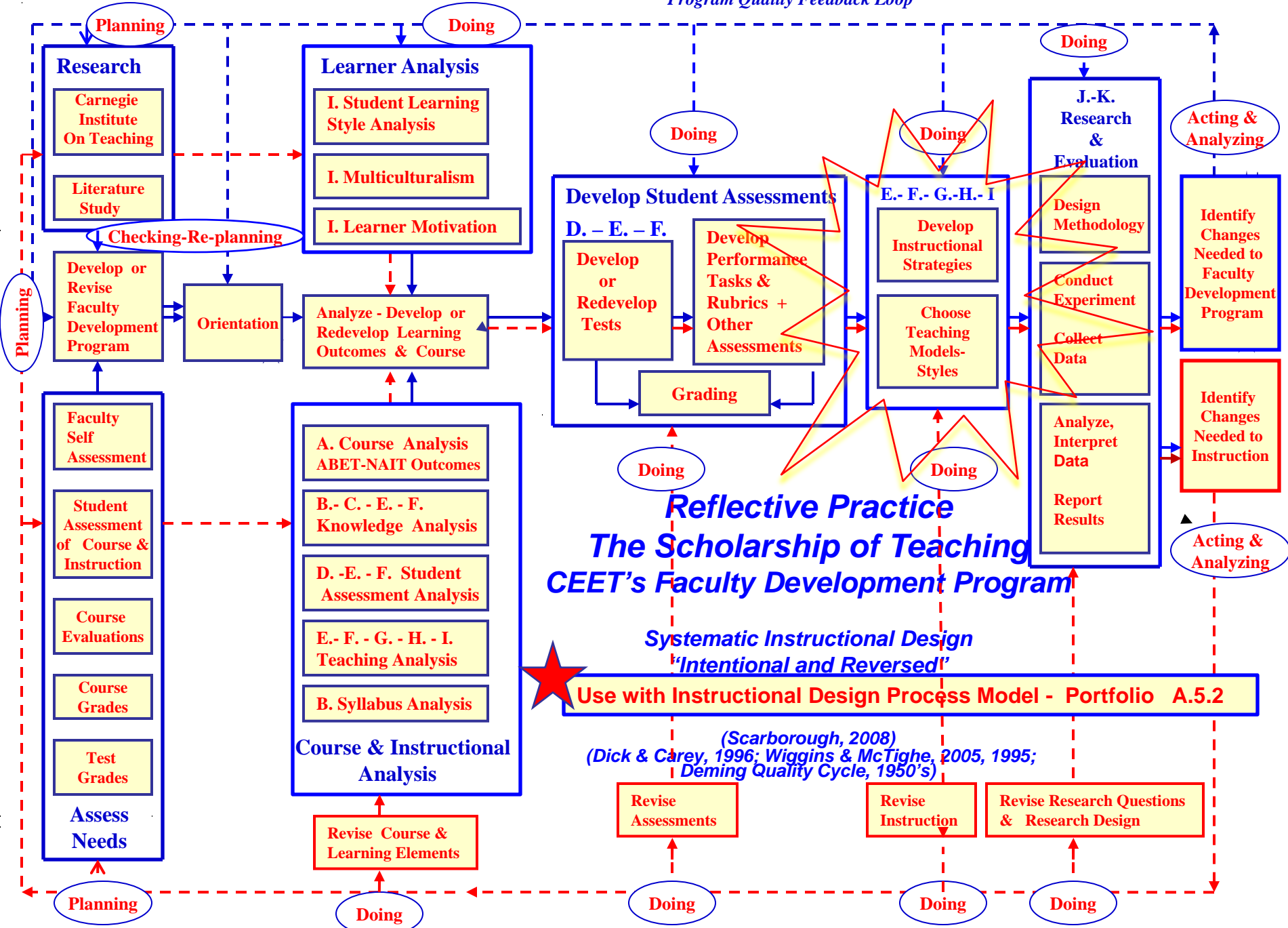
# Additional Factors

- 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



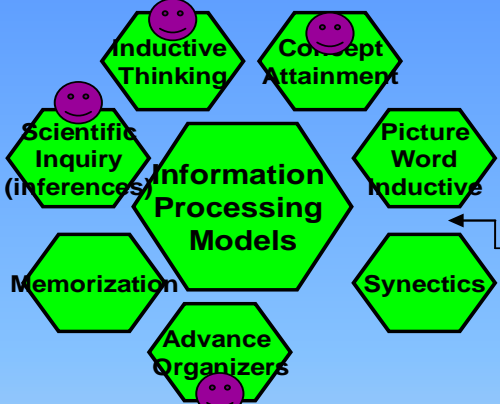
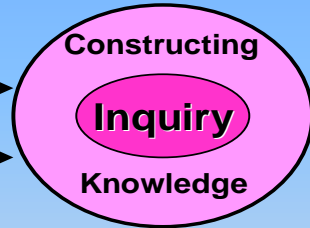
## CEET Faculty LC Community



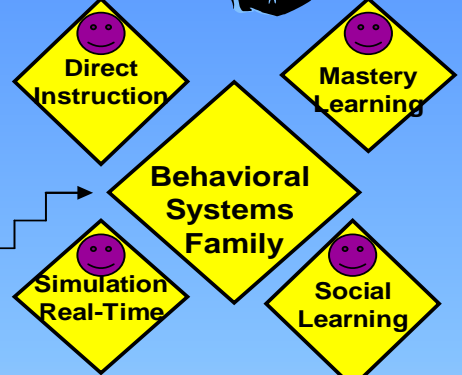
Zone Proximal Development

Zone Proximal Development

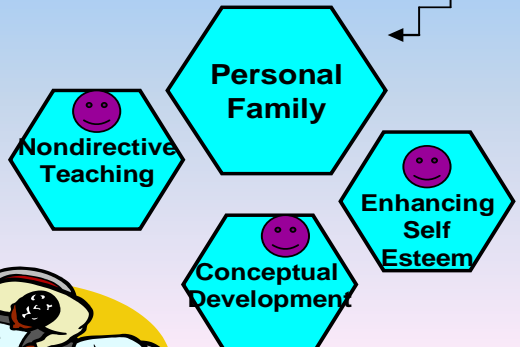
**Metacognition**



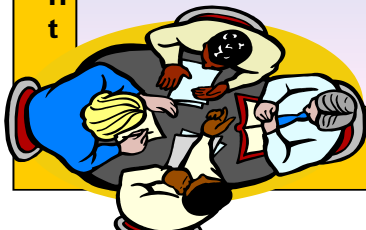
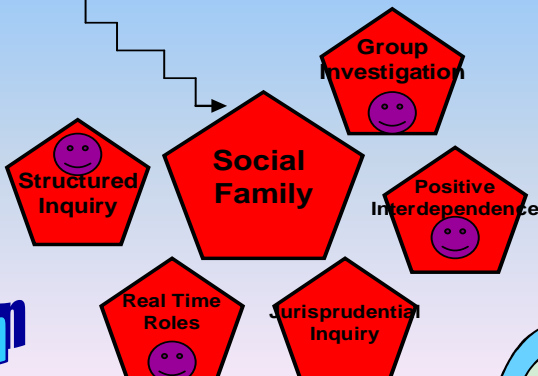
**Metacognition**



**Metacognition**



**Metacognition**



## Faculty LC of Expert Learners Models used during program

Tech 496-Scarborough, 2007 (Teaching Models by Joyce et al, 2004)

# 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

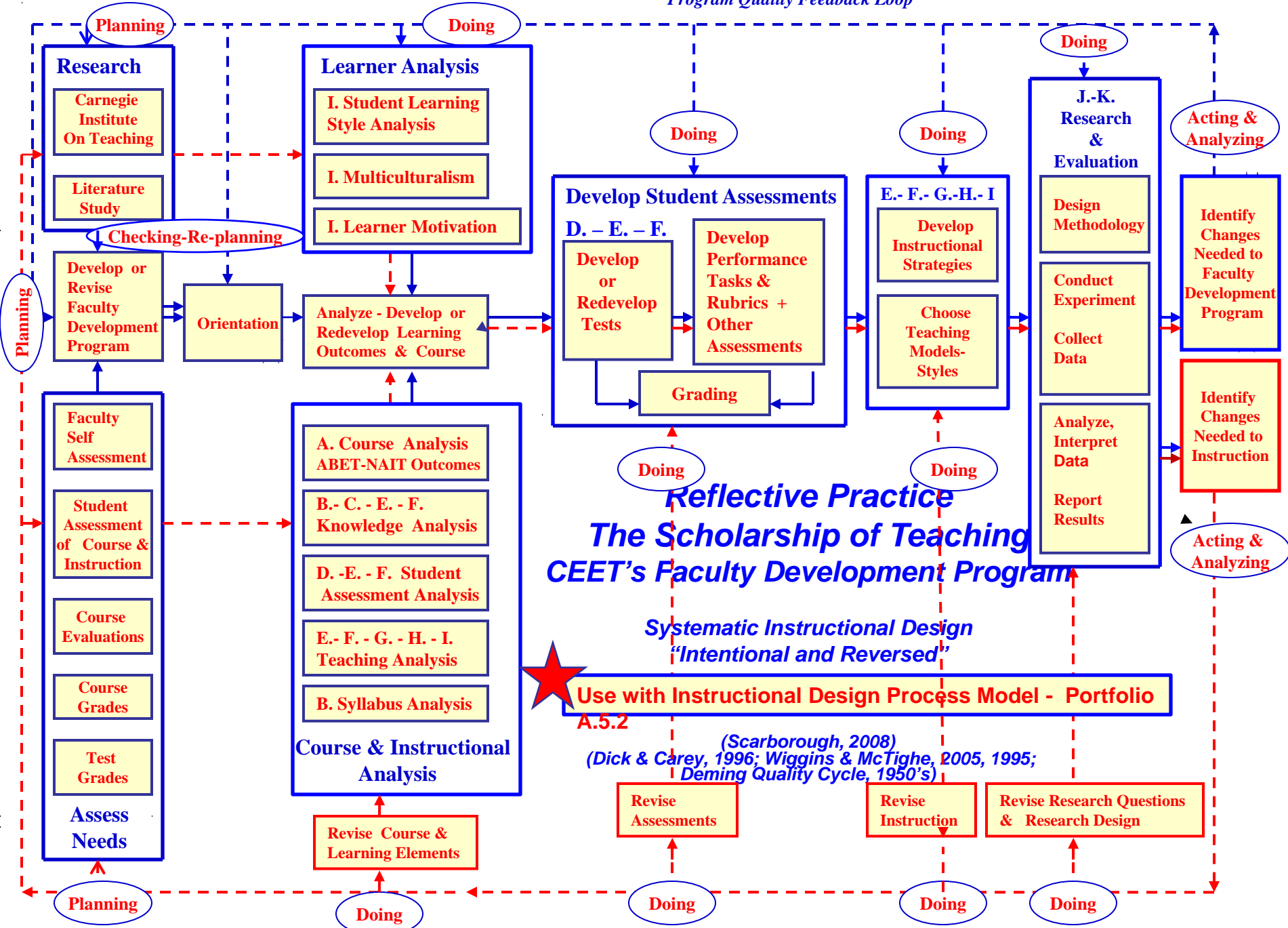
Carl Rogers, about 1960

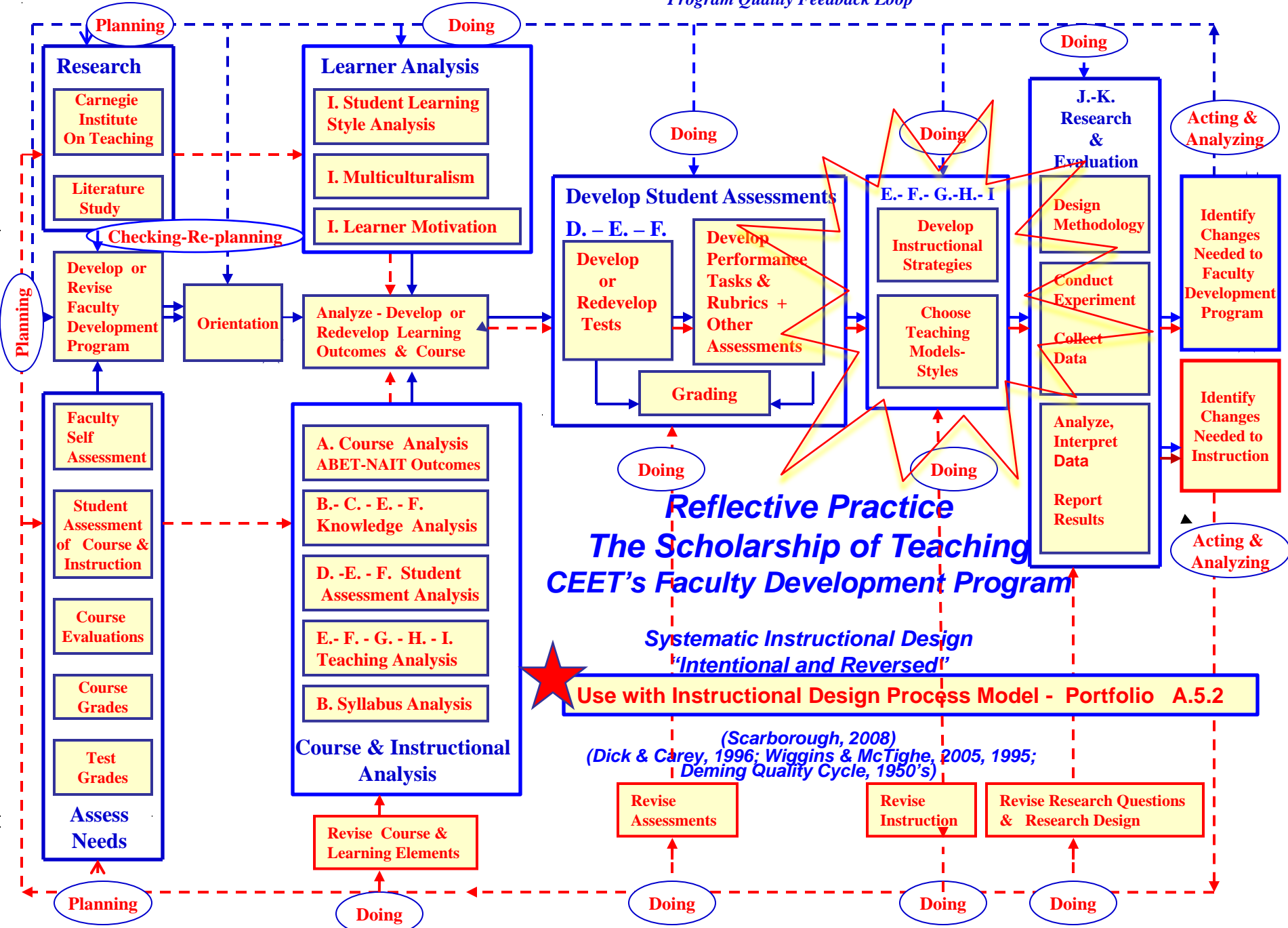
# Non-Directive

- 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.)

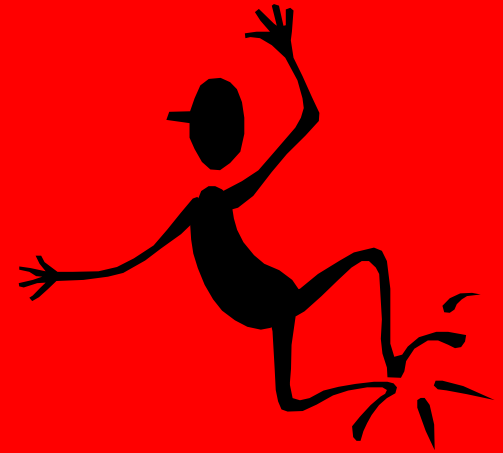
# Equitable Distribution of Response Opportunities (1)

- 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
- 



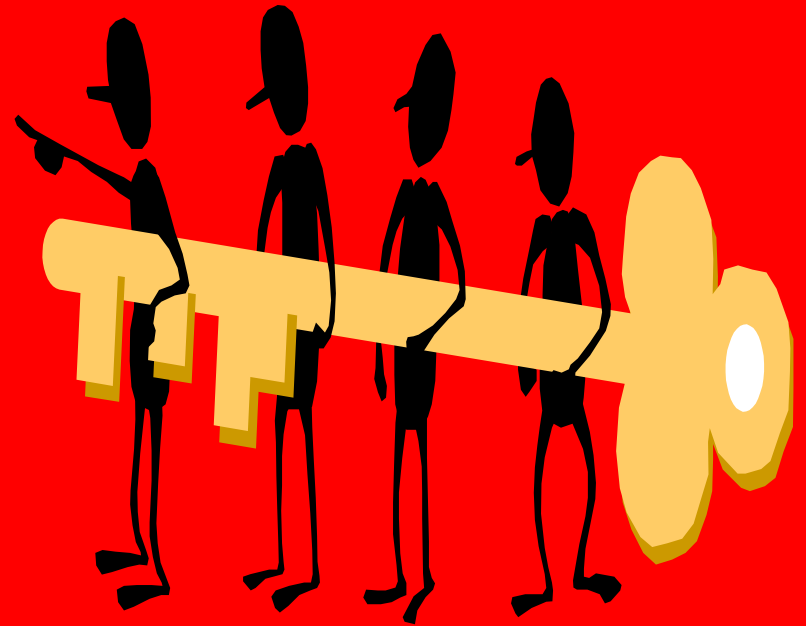
# Negative

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



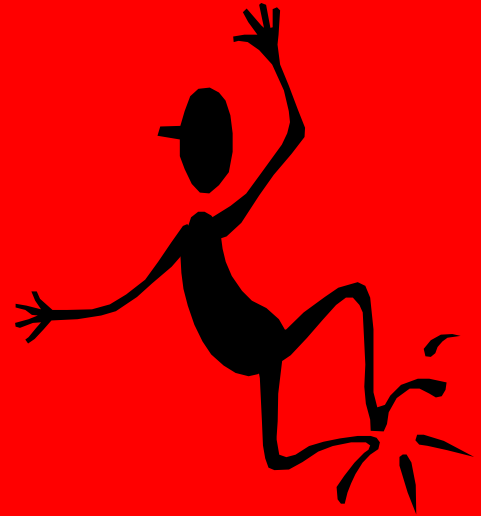
# Affirmation or Correction

- 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
- 



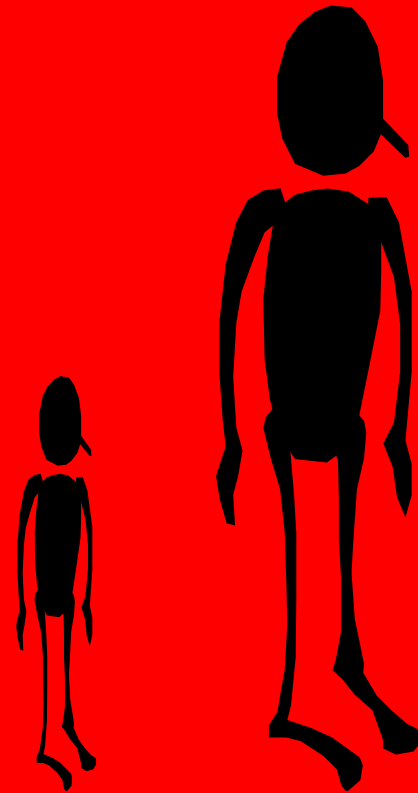
# Negative

- 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



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# 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**
- 

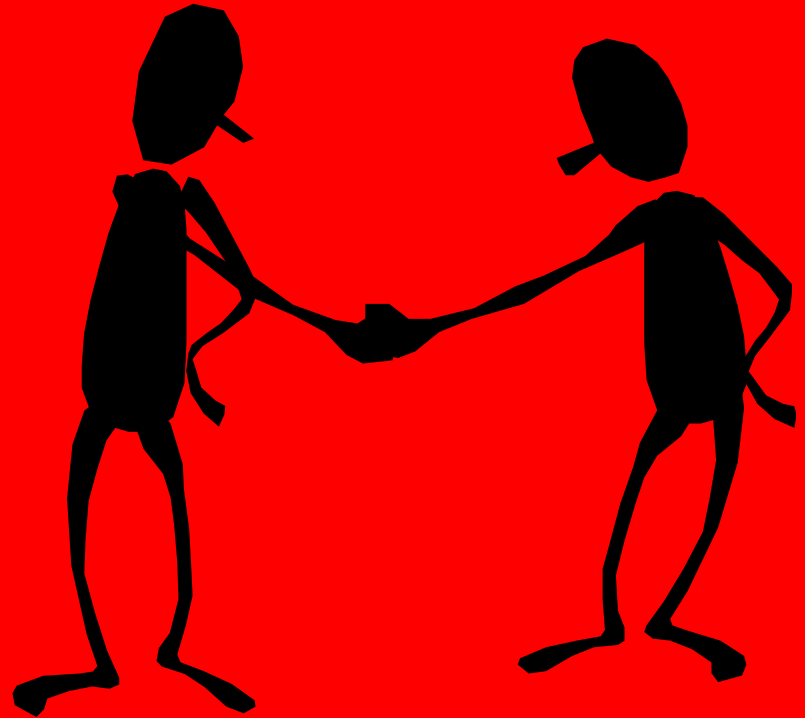
# Negative



- **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
- 



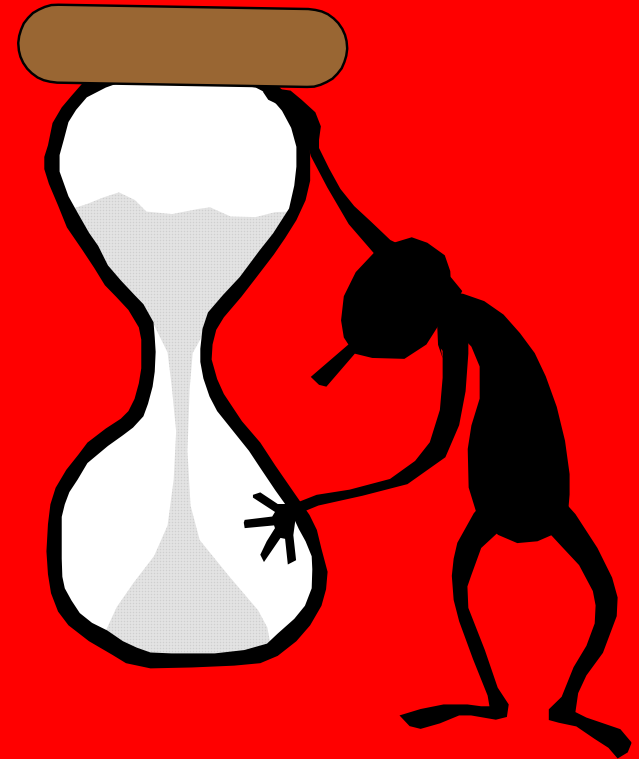
# Negative

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



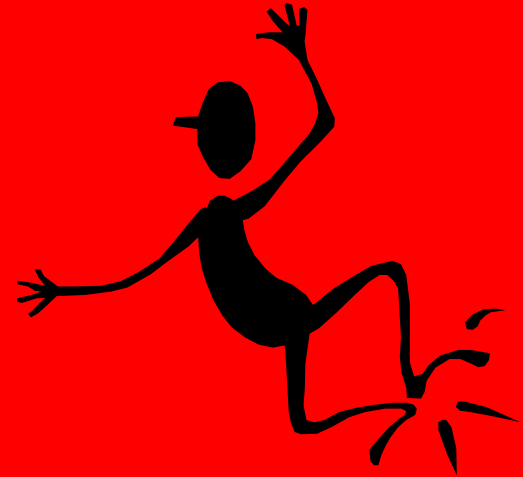
# Latency (3)

- “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
- 



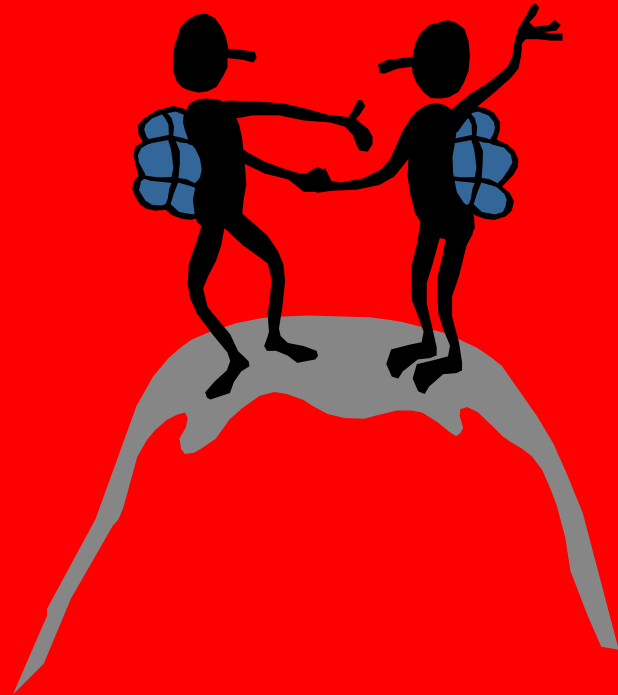
# Negative

- When the teacher is sarcastic or gives insincere praise



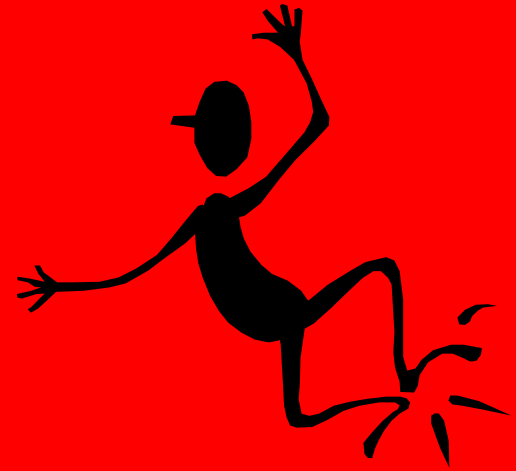
# Personal Interest Statements and Compliments

- 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



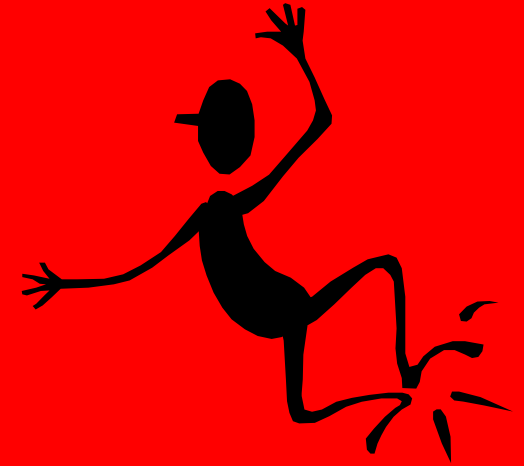
# Delving, Rephrasing, Giving Clues (4)

- 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



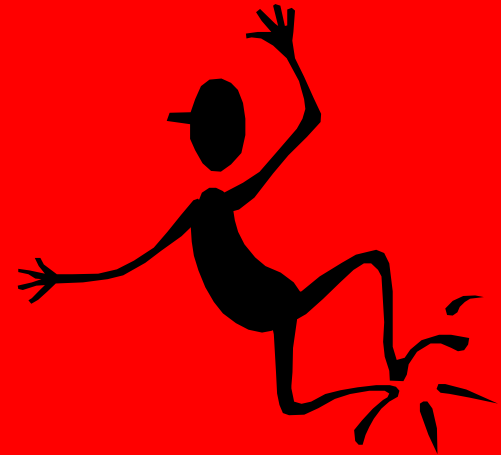
# Listening

- 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



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# 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**



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# 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



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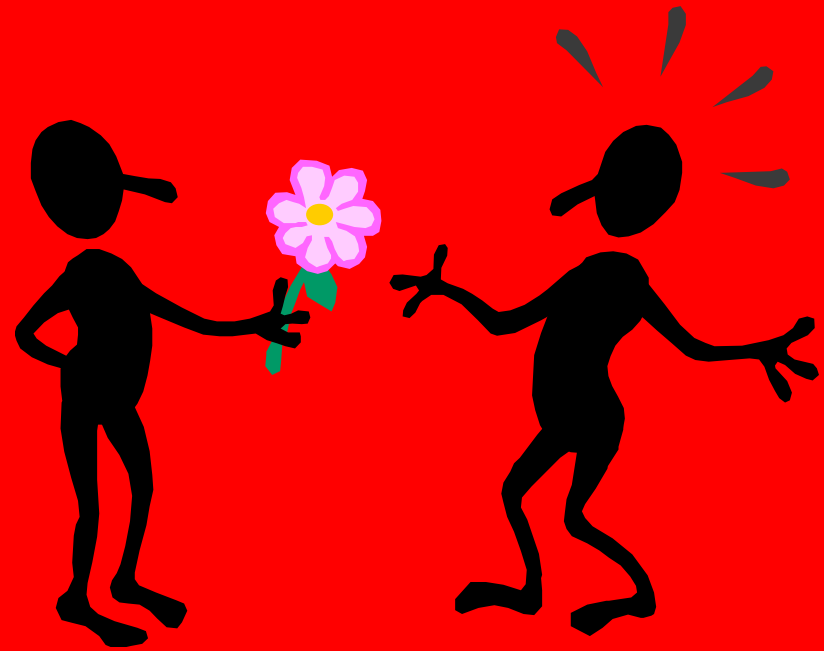
# Negative

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



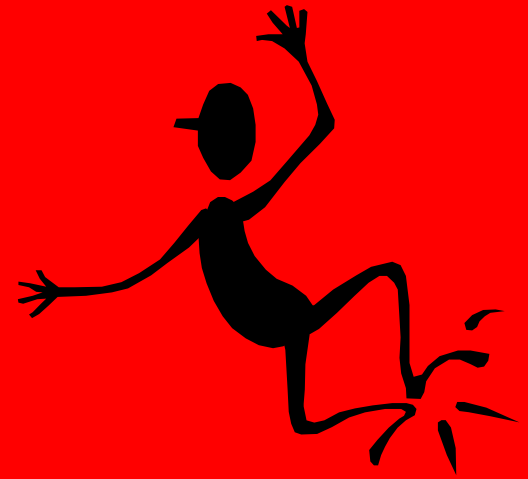
# Accepting Feelings

- 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



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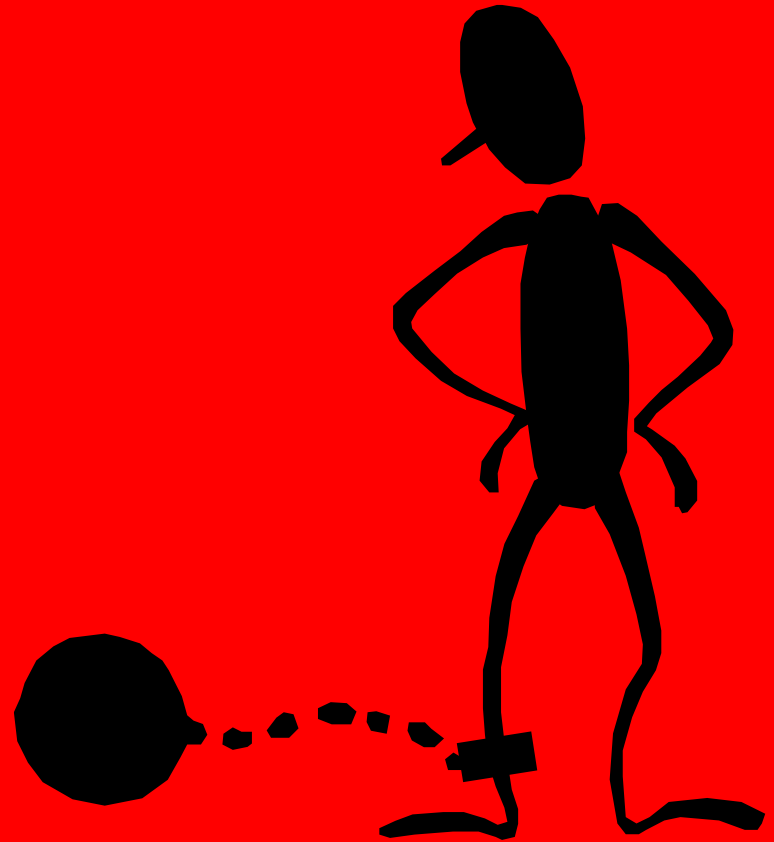
# Negative

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



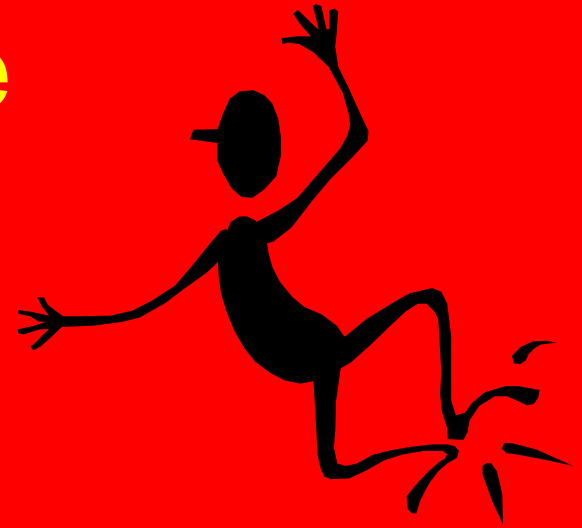
# Desisting

- “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?