

## **MODELS AND STYLES OF TEACHING SUMMARY**

(See Tables in Portfolio Section B.5.b; also, B.11.a, b, c, and Section A.5)

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Professors engaged in the consideration of teaching models in several program components throughout the program. Initially, in analyzing the 2005 courses, they considered what teaching models were being used during those courses. Later, they studied them more deeply to determine or select a few to use in their redeveloped courses for the 2006 experimental research semester, known as the 2006 courses. The teaching model goal for each professor was to broaden his/her repertoire of teaching models and select some, other than lecture, to use in newly developed 2006 courses. A common model chosen by all the professors was cooperative learning; others were selected as well and differed across professors.

### *Course Analysis*

The initial consideration of teaching models was during the Course Analysis program component. Professors analyzed their 2005 courses to identify their current use of the 24 teaching models presented by Joyce, Weil, and Calhoun (2004). (See the GAPS Analysis results, Portfolio Section B.5.3) Generally, they all realized that their reliance on lectures, where students are passive (Dale's Cone, 1964) and the professors "impart" course content, was far too frequent and was their primary teaching model. Once they realized the number of models available from which to choose, they were more than willing to expand their repertoire of teaching models. The GAPS Analysis Summary reveals that the professors are willing to consider using many of the other models presented by Joyce et al. (2004). Once they realized their model options, the professors were positive about choosing some new ones to try during the experimental research semester in 2006.

Consideration of teaching models was triangulated with teaching styles and student learning styles. During this analysis, professors also studied their 2005 courses to determine which teaching styles they used in the courses. During this initial exposure, they were introduced to Mosston and Ashworth's (1990) styles and found that the primary style used was abstract conceptualization. They realized, once again, that there was an opportunity to increase their repertoire of teaching styles and were willing to make some new choices to implement in the 2006 courses. Teaching models and styles go in tandem with each other, so their willingness to expand their use of models for both was reinforcing.

Finally, the third aspect that completes the triangle, related to the relationship between teaching and learning, was the learning styles they made possible for students to experience as a result of the teaching models and styles used. To learn first hand about learning styles, they analyzed their own learning style using the Kolb Inventory. We also discussed how the faculty development program had presented opportunities for them to observe or experience a wide range of teaching models and styles while learning, as we modeled what we were asking them to use in their own classrooms. The modeling also provided different learning style opportunities for them as they progressed through the faculty development program. After they studied their own individual Kolb (1984)

learning style profile and engaged in a round table of discussion, they better understood how to broaden the learning style experiences for their students. Three professors decided to formally use learning style inventories with their students. The results are presented in the GAPS Analysis Summary in Portfolio Section B.5.3, and it is copied into this section for reader convenience. The professors realized that the primary learning style possible as a result of the teaching models and styles used in their 2005 course was abstract conceptualization (Kolb, 1984). Thus, they realized the need to broaden student learning style opportunities in the 2006 courses; They were very willing to structure the course and teaching models and styles to increase learning style opportunities in the 2006 course.

### *2006 Course Development*

Once they completed the new student learning outcomes, the new tests and performance assessments, and the new syllabus draft, each professor then engaged in a deeper study of the teaching models by using the following worksheet with the Joyce et al. (2004) book to more closely examine each model. They were also provided with more perspectives on styles, Grasha (1996), further realizing that they relied on the “expert” style as presented by Grasha. They were also introduced to another perspective on learning styles by Felder (1988). Two professors chose to use the Kolb Inventory, and one chose the Felder Inventory. This study, or deeper examination, of the teaching models was followed by questions and discussion. Once they felt comfortable, they individually made instructional decisions about which teaching models and styles they wanted to use in the 2006 course that would result in students experiencing the whole range of learning styles. The professors hoped to stimulate opportunities for students to engage in a broader range of learning styles, so each student would have the opportunity to learn in his/her learning style “comfort zone,” while also broadening his/her capabilities across learning styles.

Data is presented in several ways. The Gaps Analysis data presents both the 2005 responses resulting from the course analyses as well as the data on their responses about what models, styles, and learning styles actually occurred throughout the 2006 experimental course.

The process was a simple one. They reviewed the worksheets from the 2005 course analysis indicating which models, styles, and learning styles they felt occurred. In addition to the reconsiderations of the 2005 worksheets, they also responded to a list of models, styles, and learning styles with brief descriptions and indicated which ones they felt were used or experienced in the 2006 course. And, finally, they reviewed the study forms they completed when more deeply studying the models and noted which ones they felt were used. Therefore, after teaching the 2006 courses, they came back to informally analyze what they felt occurred using a variety of formats. The picture became clear that they did try many new models and styles that probably stimulated students to engage across the learning styles. In one semester, we felt they accomplished a great deal. Are there many more models and other styles they can introduce to broaden student learning style experiences? Yes, definitely, and they will also become more expert in using the models and styles they tried out for the first time or more formally than before. This is just our beginning and initial changes were significant.

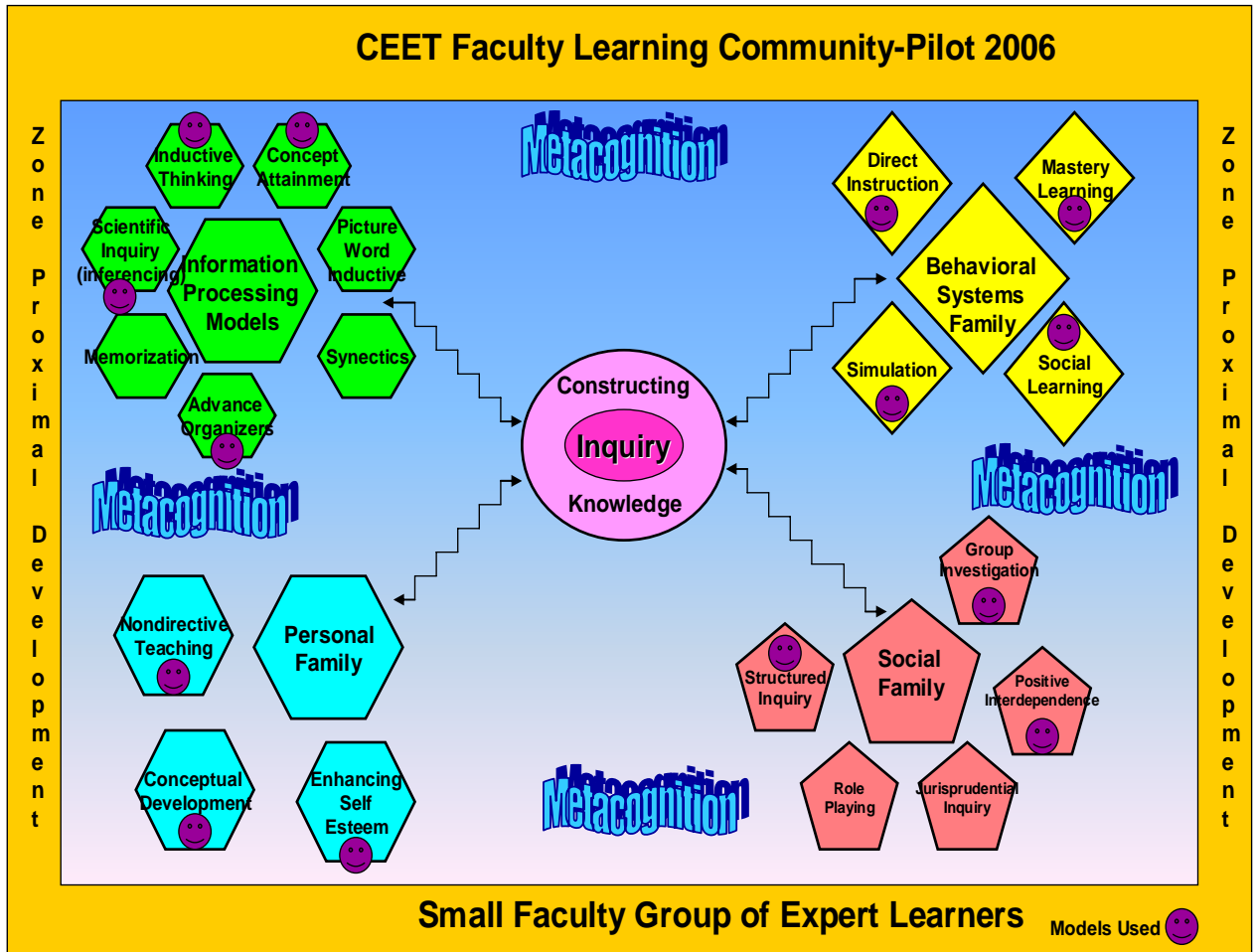
Generally, all professors made an effort to build their 2006 courses incorporating constructivism as the process to achieve the higher levels on Bloom's Cognitive Process Dimension with students. Their goals were to increasingly engage students in strengthening their metacognitive skills. They reconsidered their course content structure and, as a result of that process, addressed scaffolding such that the learning process better engaged students in building their knowledge and skills while stretching them to achieve new knowledge and skill outcomes. This process began to build a climate or lead them into the development of a "zone of proximal development" for their students. Remember the 2006 semester was the first attempt to begin building a learning environment different from the 2005 course. The professors had just been introduced to many of these concepts, but with awareness and some understanding, they began to formally engage in changing the teaching and learning environments and climate for learning in their classrooms. Ultimately, for them to achieve deeper understanding and to document formal changes, they will have to engage in semesters of that change, gradually making more and more changes – each time with deeper understanding of the theories, concepts, and models. This initiative was the pilot to begin that process.

**The research semester was successful in implementing new learning models and styles and seemingly to provide a wider range of student learning style opportunities, appropriate for their level of awareness, knowledge, skills, and experience. The new teaching models and styles strengthened the possibility of engaging students more actively (Dale, 1969) and at higher cognitive process levels (Bloom, 1956). The professors gained significantly in the knowledge about teaching models and styles; they gained significant experience in trying new ones in the 2006 semester. Although there is much more to learn, experience, research, and consider, each professor in this initiative made significant change using what they learned. The charts below present data that indicate what they have learned and what they still need to learn about and be willing to try.**

**See the Summary Tables B.10 a and b for both an individual and collective picture regarding professor responses to considering the Joyce et al. models.**

The following Map was used to organize and report teaching models (Joyce et al, 2004).  
 Figures B.11.1-8

## The Learning Environment: Models of Teaching

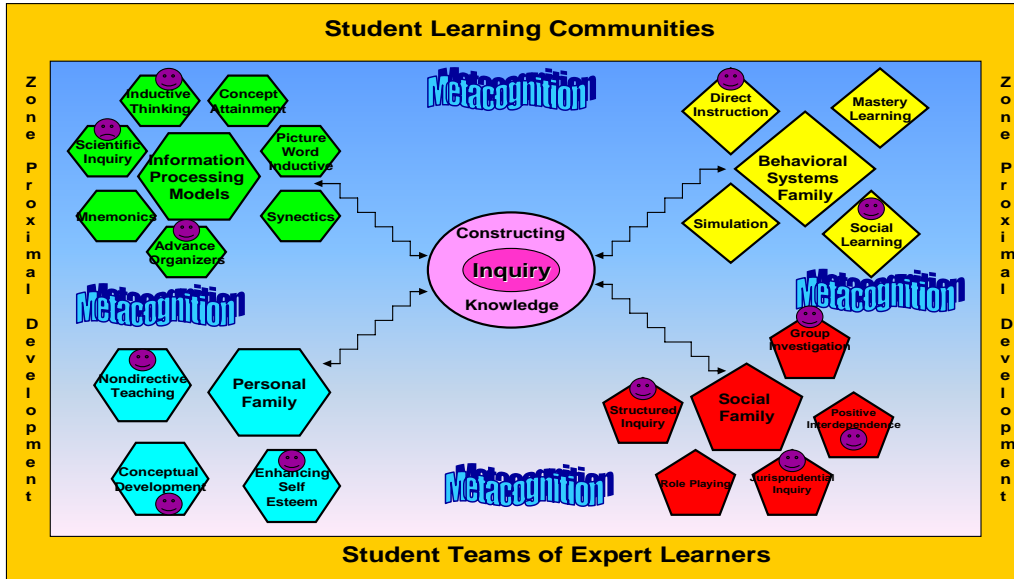


Scarborough, 2006 (Teaching Models by Joyce et al, 2004)

Each professor created a Models of Teaching Map for their 2006 experimental courses.  
 See models below.

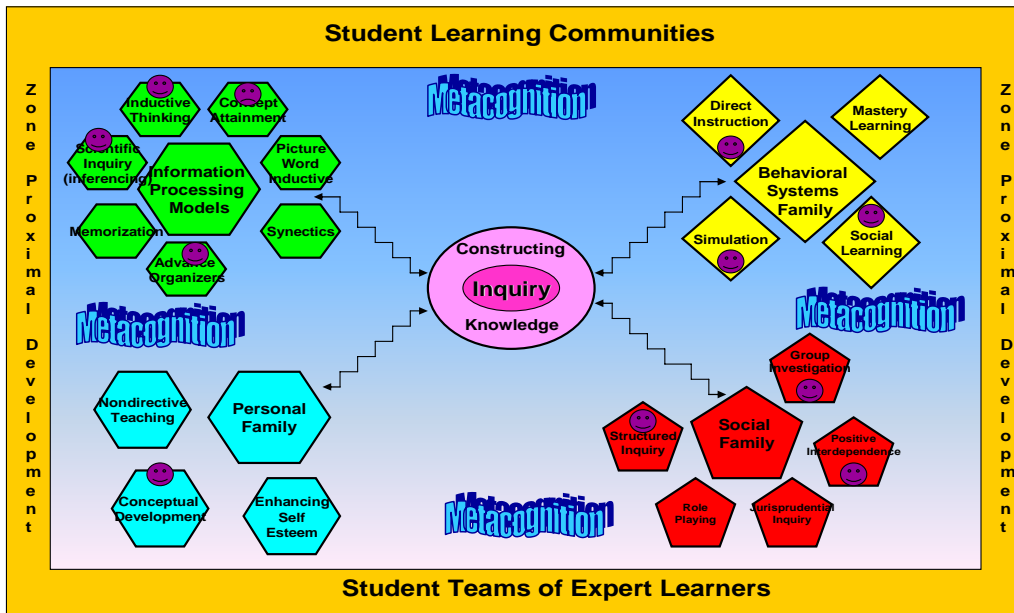
# CEET Faculty Members Teaching Model Maps 2006 Courses

## The Learning Environment: Models of Teaching

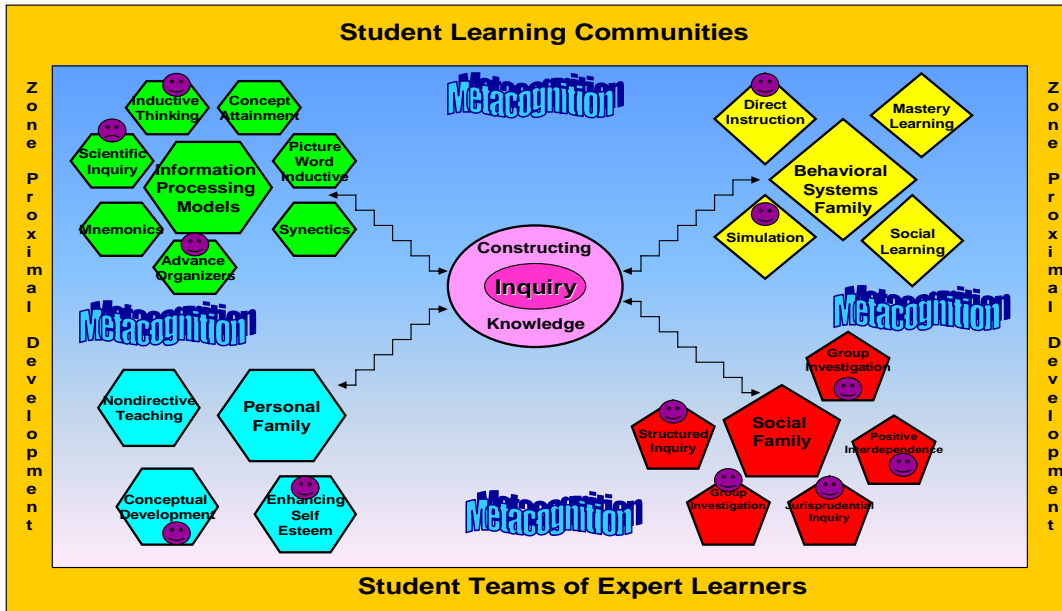


Note: Graphical Display Teaching Models  
 The smiley face attached to a model indicates using of that model.  
 - If the smiley face appears at the top of the model indicates usage of that model as stated earlier.  
 - If the smiley face appears at the bottom of the model indicates partial usage or success.

## The Learning Environment: Models of Teaching



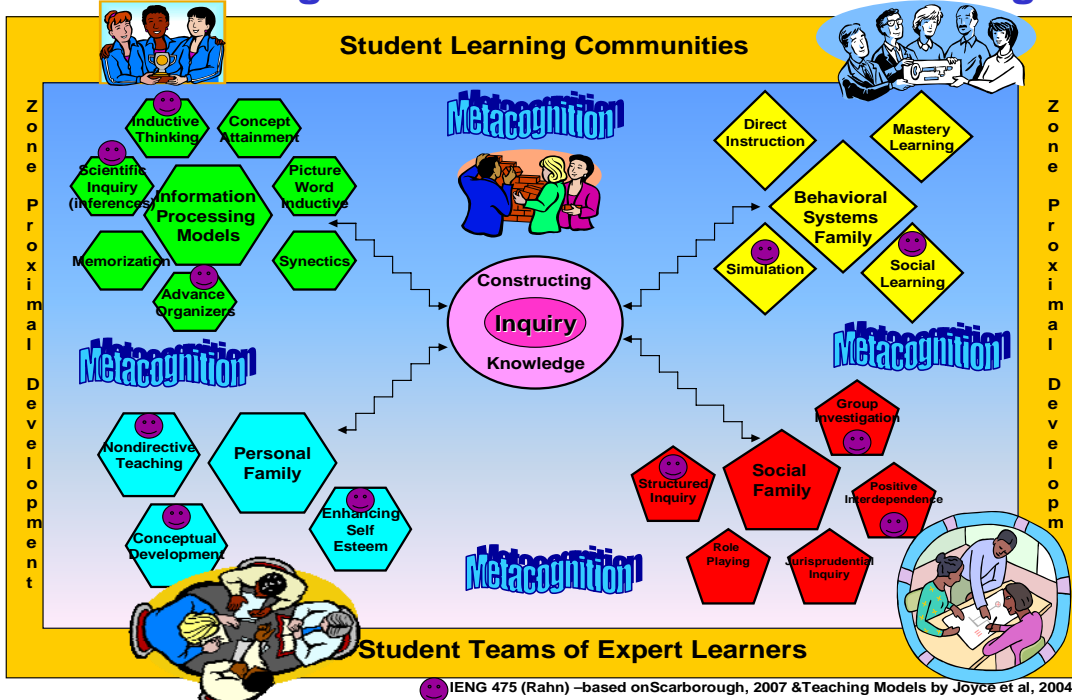
# The Learning Environment: Models of Teaching



Gupta, 2007; based on Scarborough, 2007 & Teaching Models by Joyce et al, 2004)

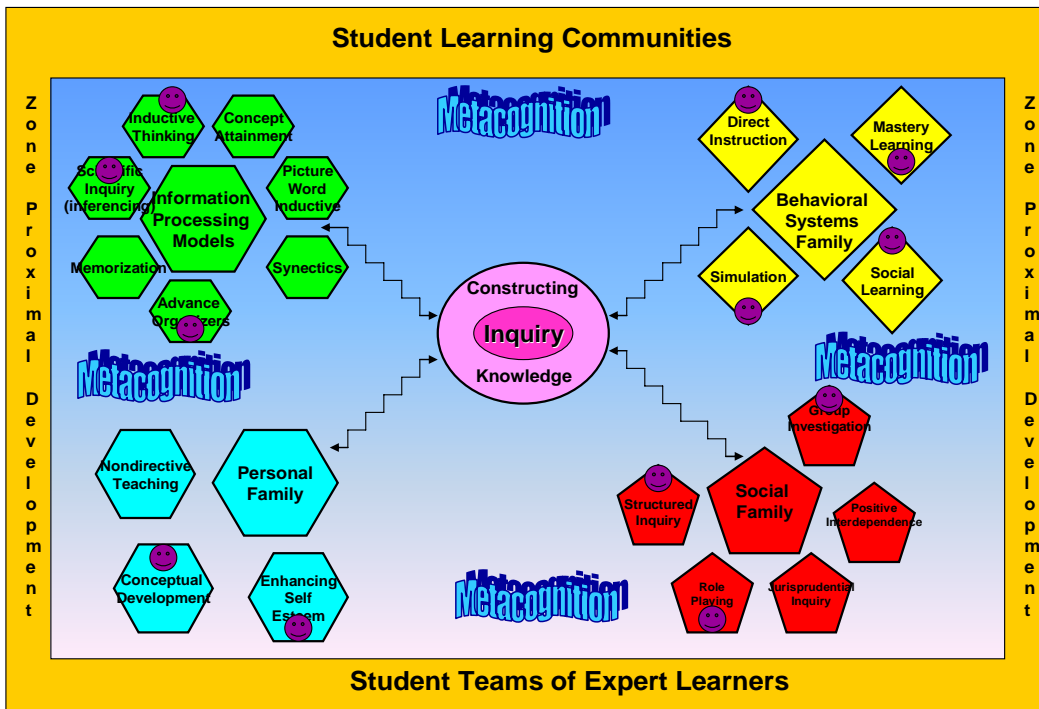
**Note:**  
 Graphical display teaching models  
 The smiley face attached to a model indicates using of that model.  
 If the smiley face appears at the top of the model indicates usage of that model as stated earlier.  
 If the smiley face appears at the bottom of the model indicates partial usage or success. May need further tweaking.

# The Learning Environment: Models of Teaching



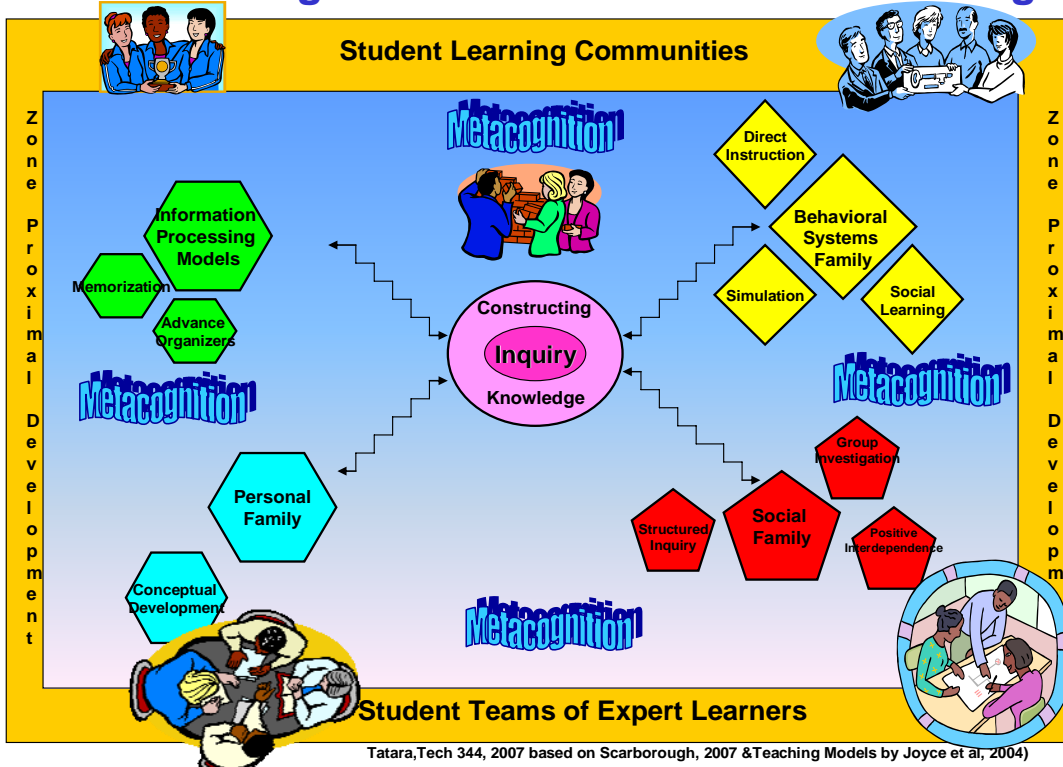
IEENG 475 (Rahn) –based on Scarborough, 2007 & Teaching Models by Joyce et al, 2004)

# The Learning Environment: Models of Teaching



Moraga, 2007 based on Scarborough, 2007 & Teaching Models by Joyce et al, 2004)

# The Learning Environment: Models of Teaching



Tatara, Tech 344, 2007 based on Scarborough, 2007 & Teaching Models by Joyce et al, 2004)

# The Learning Environment: Models of Teaching

