Developed for distribution at a workshop on teaching excellence, this collection of materials offers various perspectives on the characteristics and instructional methods of effective teachers. The collection includes: (1) brief summaries of five videotapes illustrating the use of examples, role playing, simulation, humorous lectures, and dramatization as instructional techniques; (2) comments on the art of teaching and the difference that the "great teacher can make to his/her students; (3) a summary of research findings on what effective teachers do that makes them effective; (4) list of the characteristics of outstanding teachers and poor teachers; (5) a description of the ideal teacher from the parents' perspective; (6) highlighted findings of a study of the competencies of effective teachers and mentors in adult education programs; (7) guidelines for the effective use of examples and illustrations in the classroom; (8) a paper that attempts to define "teaching" in terms of the decisions made throughout the teaching/learning process; and (9) a paper that classifies teaching strategies in terms of their physical activity, cognitive, and affective dimensions. (JMC)
TEACHING EXCELLENCE: A VIEW OF THE CLASSROOM

Dr. Frank Paoni

Eleventh Annual International Conference on Teaching Excellence
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BROOKDALE COMMUNITY COLLEGE

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Questions of Teaching Excellence

What is teaching excellence?

Are there common characteristics among excellent teachers?

Are there different styles of excellence?

Does being an excellent teacher equate to better students?

Is excellence always recognizable?

Can and do students recognize excellent teaching?
Teaching Excellence: A View of the Classroom

Workshop Summary

Goals: To explain and illustrate key components of teaching excellence.

To illustrate how lecturing can be an effective strategy in motivating students.

Activities

The workshop attendee will become an active participant in the process of viewing teaching excellence in the classroom.

After a review and discussion of how the "profession" views excellence, an opportunity to evaluate college instructors follows.

Short vignettes of two or three instructors beginning their lecture will be shown, and participants will be asked to evaluate the technique. Volunteers and draftees will role play the instructor and his or her evaluator.

The second phase of the workshop begins with a brief overview of teaching methods and how they effect the learning process. The cognitive and physical domain are explained as to how they relate to teaching methods and their outcomes.

The lecture and its many variations starts the viewing of teaching excellence tapes. The "use of examples in the classroom" will engage the workshop participants in a three-dimensional view of how we classify information.

Following a brief review of the tape and its purpose, vignettes of "Teaching the Art of Having Fun" and "Charlie Russell and Role Playing" will be shown.

Humor and Charlie give the viewer an alternative to the straight-lecture approach.

A slight pause .................. An introduction to "One If By Land and Two If By Sea" and then we see how a piece of chalk, a story brings history to life.

Happy Hour!
SUMMARIES OF TEACHING EXCELLENCE TAPES

Use of Examples in the Classroom

Professor Daniel Tomasulo

The instructor is teaching the course PSY 206, Human Growth and Development; it's the first day of the semester, and the lesson topic is assimilation/accommodation. The concept involves how children learn and acquire new information.

Dan uses three forms of examples (communication) to teach the concept to his students. The first illustration (enactive) is having the student physically learn a new (physical) skill. The second example (symbolic) has the student listening how a young child reacts to a series of different objects being rolled across the floor. The third example (iconic) has the students examining a spoon-like object in attempt to classify its use.

The classroom footage is interspersed with an interview of the instructor on how he selects examples, purpose for usage, importance to students and principals in their selection.

Role Playing: Guest Speaker, Charlie Russell

Professor Frank Paoni

Charlie Russell, a Western American artist who lived in the late 1800's/early 1900's, visits the classroom. Kid, or Charlie as his friends called him, describes his life in Montana, including stories about Jake Hoover, Blackfoot Indians, "cowboy," women and drink.

The dialogue is a mixture of Charlie's quotations and stories told in his unique western drawl. Humor and wit of the "kid" is threaded throughout the visit.

Charlie is interviewed in costume and answers questions that reflect his views on role playing as a teaching technique.
Use of Simulations in the Classroom: Lost on the Moon

Associate Professor Carol Hunter

The students in the course Small Group Discussion are led through the simulation game, Lost on the Moon. Students are seen working in small groups in an attempt to problem solve—their survival on the moon. They are given a list of items to prioritize, and their survival is based on their score.

The interview of the instructor brings forth her agenda for engaging students in a unique problem solving process as well as the dynamics of gaming.

Teaching: The Art of Having Fun

By Joe Zavaglia

Lecturing can be a fun activity if you give yourself a chance to explore the realm of possibilities. Joe Zavaglia allows his students to view English and French Law via a new perspective. The use of humor is paramount in the instructor's presentation. Situations of Law are placed in a setting that forces the student to laugh and smile.

The style of lecturing in this class supports the theory that teaching and learning can be fun, not only for the students but for the instructor.

Enthusiasm in the Classroom

Professor Fred Fraterrigo

The Battle of Lexington and Concord is the lesson topic of Professor Fraterrigo in his American Civilization history class. The student is given a vicarious experience of the battle dramatization by the instructor.

Through the use of the chalkboard, storytelling, quotations, dramatic gestures, voice changes, and humor, the battle becomes alive to the students.

During the interview Fred continues to use the same charm and techniques to bring forth the philosophy behind his approach. Patrick Henry's speech "give me liberty or give me death" and the recitation of Gunga Din begins and closes the interview.
The Art of Teaching
By Howard Wilkinson

Professor of Education remarked about his decision in the classroom:

"It was impossible to have any effect on students at all";

"The bright ones will learn no matter who teaches them"; he insisted, and

"The others never will."

He was wrong.

Good teaching does make a difference. It induces students to demand more of themselves; leads to new ways of solving problems, and awakens unsuspected talents.

Poor teaching, on the other hand, involves its own kind of differences: it stifles, deadens, and destroys whatever curiosity and enthusiasm students may bring to their studies; and the damage it does can be permanent.

The teacher, as role model, has been almost totally ignored except for scattered studies of "mentoring." Yet, anecdotal evidence indicates that the "great teacher" influence is not a myth. Research holds that interaction between faculty and students differentiates between students who stay in college and those who leave; between those who are satisfied with the college experience and those who are disgruntled. The task of serving as a role model is closely related to the task of becoming a motivator of students.
One of the most persuasive studies of effective teaching was that carried out by Wilson, Gaff, Dienst, Wood, and Barry (1975) a little over a decade ago. They asked faculty members in six colleges and universities to nominate three colleagues whom they regarded as having significant impact on students; they asked Seniors to name the teacher who had contributed most to their educational development; they obtained data on changes in students from the Freshman to Senior year on the Omnibus Personality Inventory (changes on the scales measuring intellectual interest were particularly relevant). They asked faculty members to name students to whose development they had contributed. The Convergence between these sources of data give some confidence in the validity of the conclusions about effective teachers. Among the most important characteristics of effective teachers were high levels of interaction with students outside the classroom, striving to make courses interesting, using frequent examples and analogies in teaching, referring to contemporary issues, and relating content to other fields of study.

One of the most prolific areas of research on effective teaching has been that dealing with student ratings of teaching. As Marsh's review (1984) demonstrates, teachers rated as effective by students tend to be those whose students perform well on achievement tests; and evidence from peer ratings, self-ratings and other sources of data provide converging evidence of the validity of student ratings. Marsh (1986) has also shown that the qualities characterizing effective teachers, as perceived by students, are much the same in Spain, Australia, Papua New Guinea, and North America. Enthusiasm and clear, well-organized presentations were most highly valued in all groups. The amount of work and the difficulty of the course did not relate as highly to rated effectiveness; but contrary to criticisms and faculty stereotypes of student ratings, teachers who assign more work and more difficult work tended to be those rated as most effective.
WHAT MAKES AN OUTSTANDING TEACHER?

Their descriptions of characteristics of the college instructors which they had rated "outstanding" covered a very wide range of personal and professional characteristics. The "Top 5":

1. Knowledge of subject
2. Well-organized
3. Concerned about and responsive to student needs
4. Enthusiasm for subject
5. Friendly and personable

Now take a look at the "Bottom 5"—the five characteristics which distinguish those teachers rated as "poor":

1. Dry, dull, cool, aloof, no personality
2. Unorganized, not prepared
3. Disinterested, uncaring, disrespectful toward students
4. Not knowledgeable about subject
5. Unable to communicate effectively

There are two striking features among the interviews of these 28 very effective community college teachers. The first is their strong consistency. These exemplary teachers share many common characteristics and behaviors, regardless of their academic discipline, their age, or their experience. Second is the fact that most of these shared characteristics are teaching characteristics and instructional practices, not personal characteristics of the teachers. Since teaching characteristics are generally easier to alter or adapt than are personal characteristics, this finding presents a very optimistic view of the potential of staff-development efforts.

The effective teachers interviewed in this study are exceptionally well organized and very systematic in their teaching. They identify for their students what is important to learn and what is expected of them in the course. Although they use primarily whole-group instruction, these teachers place great emphasis on student participation and involvement during class sessions. Students are given regular and specific feedback on their learning progress and are rewarded for improvement and success. In addition, these teachers have a very positive regard for students and communicate this by learning their students' names and encouraging those with difficulties to come to their offices for individual help.
A substantial body of research now exists on what students consider important factors in effective teaching. Feldman (1976) reviewed a group of studies in which students were asked to describe "good" or "ideal" or "best" teachers. He found eight characteristics that were usually ranked high in all studies: concern for students, knowledge of subject matter, stimulation of interest, availability, encouragement of discussion, ability to explain clearly, enthusiasm, and preparation.

Factor analytic studies of student rating forms show rather similar clusters of characteristics. Feldman (1976) reviewed nearly 60 factor analytic studies and concluded that there were three major clusters in effective teaching—the instructor's ability to present the material, to encourage students to learn, and to regulate and deal fairly with students. Kulik and McKeachie (1975) reviewed eleven factor analytic studies of teacher rating scales and found similar factors they labeled as follows: "skill," which represents the ability to communicate in an interesting way, to stimulate intellectual curiosity, and to explain clearly; "rapport," which involves empathy, interaction with and concern for students; "structure," which concerns organization and presentation of course material; and "overload," which refers to the workload and instructor demands.

March 15, 1989, Chronicle of Higher Education

"Healing the Fractured Movement for Educational Reform"

By Peter Monaghan

In the book, A Place Called School, John Goodlad reported that 88% of teaching was "didactic" or "frontal." Simply put, teachers talked at rather than with their students — with terrible results.

Mr. Goodlad wants the institution of teaching to move away from "didactic instruction and telling people what to do. It should move more toward giving them the opportunity to have charge of their own destiny, risking that they'll do dumb things."
THE IDEAL TEACHER

Nobody's perfect, but here's what parents can reasonably expect

By Francis Roberts

1. Parents should expect teachers to teach their children, not blame low achievement on learning problems. I've never met a good teacher who blamed lack of student progress on the child, the parents, last year's teacher, etc.

2. Parents want well-planned lessons and a well-organised curriculum. Learning goes best when teachers are clear about academic objectives and teach to achieve these.

3. Parents want evidence of learning. Vague reassurances that "Judy is coming along fine" must be matched by examples of a child's classwork, references to test results and comparisons with grade-level standards and national norms.

4. Parents want children to have an interesting school day. Today's well-informed parents know that boredom and endless rote learning yield only modest results compared to what children learn in a school environment that arouses student curiosity and interest.

5. Parents want teachers to be well-educated, literate and well spoken. Teachers unable to set appropriate examples in the use of standard written and oral language should be expected to improve their competence in order to continue in their jobs.

6. Parents want teachers who care about kids and who see their own role as builders of children's confidence and egos.

7. Parents want teachers to be adults of civility, maturity and character. No one would bring back the Puritan restraints once imposed on teachers, nor do most schools worry teachers about skirt lengths or ties. But high personal standards of values and conduct are important if teachers are to help inculcate these traits in children.
COMPETENCIES OF EFFECTIVE TEACHERS AND MENTORS

Purposes: (research project) to identify the skills, values and attitudes that underlie effective teaching in degree programs for adults by studying what effective teachers in these programs actually do. Identified five clusters of behaviorally-grounded competencies that characterized the study group members and distinguished them from the control group.

Results: 1. As a group, the faculty members who were perceived as highly effective exhibited an orientation to teaching best described as student-centered: facilitators of their students' learning, high level of positive regard for students, optimism about and affirmation of the accomplishments of average or even exceptionally difficult students. The expression of negative expectations, on the other hand, was the single most dominant theme in our interviews with the average faculty members.

2. The study group was also characterized by the pervasive conviction that learning is, in and of itself, a highly valuable activity. They tended to view specialized knowledge as a means or a resource for enhancing the goal of learning rather than as the goal for which learning is endured. The average faculty members, virtually never described themselves as directly engaged in the learning they oversaw.

3. Effective faculty members in adult degree programs are sensitive to the special claims of adult students and work to establish situations that are conducive to adult learning. Viewed their students as persons whose particular frames of reference affected their participation in the learning process. Promoted adult-adult interactions by speaking directly to their students' adulthood. Members of the control group displayed considerably less aptitude for holding their students accountable to the learning process. Only infrequently did they find ways to show students how certain learning tasks held rewards for them, and they seldom confronted students how certain learning tasks held rewards for them, and they seldom confronted students over unacceptable behaviors. Chose to bend his or her own performance standards.
4. The effective faculty members, in spite of some statements to the contrary, took highly directive roles in the facilitation of their students' learning. Began the process of identifying learning tasks by actively unearthing information about their students' learning needs and interests. Also, exhibited skills in integrating disparate information about their students into diagnostic theories, yielded prescriptions for action. Average faculty members, by contrast, did not describe themselves as going through this three-stage process. Seldom explained how the recommendation made sense in terms of their particular students' circumstances.

5. Effective faculty members in this study also placed enormous emphasis on making use of their students' interests, attitudes, and experiences at all phases of the learning process. Through a variety of strategies, the effective teachers created learning situations in which it was the student who worked through the course issues, questions, or exercises and arrived at an understanding of the learning points in questions.

One of the myths that many faculty members in higher education live by is that the key element in their teaching is their ability to model for the student what it means to be committed to the pursuit of an intellectual discipline. It was the faculty member's enthusiasm for and commitment to his or her subject that had the greatest impact on students. Several faculty members recalled the great teachers in their own past who had modeled such a commitment for them. Yet as we worked through the various transcripts, eliciting the patterns that underlie effective teaching, it seemed to us that what the effective faculty members were doing was not displaying their own intellectual lives but seeing how the resources of a subject matter, or even the resource of disciplined inquiry and analysis, could enlarge the students' own spheres of competence, perspective, and insight.
USE OF EXAMPLES

When a teacher is explaining a difficult idea to a group of students, he is likely to be asked for examples and illustrations. An abstract idea is easier to understand when it is related to a concrete illustration. If the teacher cannot provide an illustration, the students may be unable to comprehend the idea, and they may wonder if the teacher himself understands it.

Because concrete images are necessary for understanding new and difficult concepts, the use of examples is basic to good teaching. The purpose of this exercise is to enable you to practice the use of examples and illustrations when conveying new ideas to students.

There are two basic approaches to the use of examples. The deductive approach is probably more common in the classroom. It consists of three basic steps. First, the teacher states the idea or principle he wants the students to understand. Second, he gives examples which illustrate, clarify, or substantiate the idea. He may do this orally, by way of analogy or metaphor; or he may use a written or visual illustration, such as a book, a picture, an experiment, or the solving of a problem. Third, the teacher relates the examples back to the main idea; or he may ask the students to give examples and relate them back to the main idea.

Using the inductive approach, the teacher does not start with the idea. Instead, he starts with examples illustrating the idea. After studying the examples, the students try to generalize and make inferences. If the students fail to arrive at the main idea, then either they have not induced correctly, or the examples were misleading. In the former case, the teacher points out the fallacies in their inferences; in the latter, the teacher finds better examples. The teacher does not tell the students what the examples illustrate. Eventually, the students arrive at the correct generalization themselves.

The following are guidelines for the effective use of examples:

1. Start with the simplest examples. Word for simple examples to complex ones. A basic principle of concept-formation is that examples given to illustrate a concept confront the learner with a complex sorting task. Some of the information conveyed by the example is relevant; some is not. If you begin with complex examples, the students may become confused by excess information and miss the point. Therefore, begin with a simple examples and work up to complex ones, emphasizing only the relevant aspects of each.
2. If examples are not within the range of the students' experience and knowledge, then they are useless as illustrations of a concept. How do you know that an example is appropriate for your students? This information is a function of your familiarity with your students' backgrounds. The more you know about your students, the more you will be able to select relevant examples.

3. After presenting some examples, sharpen your students' understanding by offering an irrelevant example—one that has no relation to the concept. In other words, once the students have acquired a basic understanding of the concept, present them with examples that do not illustrate the concept. This use of "non-examples" helps students discriminate between the concept you are teaching and other, similar concepts. However, do not include a non-example too early in the presentation. Wait until the students are likely not to be confused by it.

4. Don't assume that the more examples you give the students will understand the concept. Unless the additional examples illustrate new aspects of the concept, or provide more information about it, they will add nothing to the students' understanding.

5. Remember that the point of using examples is to illustrate, clarify, or substantiate an idea. Therefore, you must relate the examples to the idea. Don't assume that students will automatically connect examples they are given with an idea. Either relate the examples to the idea yourself, or have the students do it.

6. One way to make sure that students have understood a concept is to ask them to give you additional examples of it. If their examples are good, they have probably grasped the concept. If their examples are faulty, they have probably misunderstood, and you can adjust the lesson accordingly.
"Teaching is a cumulative chain of decision-making—of deciding among known choices. The absence of decisions about various aspects of a lesson also reflects decision-making—a decision not to make decisions about some aspects of the lesson."

The one universal among all teachers is that they all make decisions about the teaching/learning process. Each decision that they make impacts differently on the intended lesson and in turn determines the success or failure of the lesson. The party that is most affected by the teacher's decisions or lack of decisions is the student. The student is asked to recall information; sit in a particular place; follow an established set of rules; read certain materials; and respond in a given manner. Every time a decision is made, conditions change for the student and new demands are placed upon him.

The premise of this manual is based upon the theory that all teachers are basically the same and they make the same category of decisions. That is to say, that each teacher whether he is teaching at the collegiate, secondary, primary, or preschool level is involved in a decision-making process that is identical in nature. To explore this theory—(all teachers make the same category of decisions)—let us look at the decisions that are operational in the teaching process.

Following are the broader categories of decisions with examples of sub-decisions. (Note: Each decision leads to another decision.)
<table>
<thead>
<tr>
<th>Discipline (How to control students)</th>
<th>Evaluation (What standards are used)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Student behavior code</td>
<td>1. Types of grades or reporting, i.e.,</td>
</tr>
<tr>
<td>2. Types of Discipline</td>
<td>ABC, percentage, pass, fail</td>
</tr>
<tr>
<td>3. Standards for discipline</td>
<td>2. Norms used</td>
</tr>
<tr>
<td>4. Punishment</td>
<td>3. How often, when</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Physical Environment (How should the classroom be arranged?)</th>
<th>Motivation and reinforcement (How students are encouraged to learn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Arrangements of furniture</td>
<td>1. Intrinsic</td>
</tr>
<tr>
<td>2. Available materials and equipment</td>
<td>2. Extrinsic</td>
</tr>
<tr>
<td>3. Room decorations, bulletin boards, exhibits</td>
<td>3. Feedback ratio</td>
</tr>
<tr>
<td>4. Learning centers, laboratories</td>
<td>4. Humanistic/Behaviorism</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Curriculum (What is taught)</th>
<th>Books and Materials (Types of print and non-print media)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The subjects</td>
<td>1. Non-print: T.V., films, tapes, records, etc.</td>
</tr>
<tr>
<td>2. The emphasis and time given to subjects, topics</td>
<td>2. Print: text, supplement, newspapers, booklets, periodicals</td>
</tr>
<tr>
<td>3. Expected outcomes: Cognitive, Affective, Psychomotor</td>
<td></td>
</tr>
<tr>
<td>4. Coordination of subjects with other levels</td>
<td>3. Reading levels and availability</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teaching Methods (How subject is taught)</th>
<th>Psycho/Socio Environment (Atmosphere of classroom)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Types of planning: unit, lesson, weekly, daily</td>
<td>1. Teacher's attitude and posture toward students</td>
</tr>
<tr>
<td>2. Teaching strategies used</td>
<td>2. Freedoms or responsibilities of students</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Measurement (How to assess student learnings)</th>
<th>Communication (Exploring Process)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How often to measure: weekly, unit, semester</td>
<td>1. Vocabulary</td>
</tr>
<tr>
<td>2. What to measure</td>
<td>2. Length and complexity</td>
</tr>
<tr>
<td>3. Devices used: test, reports, types of questions, team projects</td>
<td>3. Concrete or abstractness of statements</td>
</tr>
<tr>
<td>4. Emphasis pen instrument</td>
<td>4. Illustrations</td>
</tr>
</tbody>
</table>
Do all teachers make these categories of decisions? The answer is, obviously, yes; they consciously or subconsciously do make the decisions. Does that mean that all teachers are identical? No, only that each teacher makes a series of decisions within each of the categories. An example is that each teacher decides what are the best, or most appropriate, methods of measuring student progress. The college teacher may use essay tests or term reports; while the primary grade teacher may use projects, an objective test as a means of measurement. And, then again, they both may use the same measures but geared for their particular level. Another example may be in the use of a selection of teaching methods. At graduate school the instructor may use the lecture method for an hour or more; but at the primary level the lecture is still used, but only for five to ten minutes.

The critical, or most important, aspect about teachers making decisions is not the decision itself but how decisions are made. Each time a teacher makes a decision it impacts directly on the teaching/learning environment. Each decision results in a different set of consequences. The consequences of the decision are, in essence, the determining factor whether learning has been impacted favorably or not. The decisions a teacher makes will determine the quality of teacher he or she shall become. The master teacher makes the "right" decisions; the poor teacher makes the wrong decisions. The question then is how to make the right decisions concerning the teaching/learning process.

Let us now consider the steps in the decision-making process:
Each teacher makes decisions
Each teacher makes the same types (categories) of decisions
Each decision has alternatives
Each decision has consequences
Each decision affects the learning process differently
Each student behaviors are a result of teachers' decisions
As stated previously, the decisions a teacher makes directly affect the students. It is, therefore, necessary for teachers to know how to make correct decisions. The following formula for making decisions is not foolproof; but it does provide a model for thinking:

Step One: The need to make a decision
Step Two: Identify the alternatives or choices
Step Three: Identify the consequences/results of each alternative
Step Four: Assess the consequences in terms of objectives
Step Five: Make decision

SUMMARY

Teaching is primarily a decision-making process. All teachers are basically the same in that they all make the same types of decisions. Each decision a teacher selects has different consequences for learning. The key to making correct choices is knowing the alternatives and their consequences in relationship to the objectives.

REFERENCES


"A teaching strategy is an organized means of presenting skills, knowledge, or values."

Teaching strategies (methods)* are part of a system of actions intended to effect learning. The system is the complete educational process that encompasses those categories of decisions we previously identified. Since teaching strategies represent anywhere from 60% to 85% of the instructor's and student's time, they are critical to the learning process.

Teaching strategies are not only important because of the amount of time devoted to them, but also for their intended nature—to give an opportunity for students to receive and interact with the information. No other decision that a teacher makes has such a profound impact upon the student. Each strategy requires different forms of participation, as well as thinking, from the learner. Therefore, every method can be classified as to its educational requirements or dimensions.

The Educational Dimensions of teaching strategies will be explained in the next part.

*The word "method" will be used synonymously throughout the text.
the strategy in terms of its educational impact. The strategies are first classified as to the level of physical activity. Then they are further categorized as to their cognitive and affective demands placed upon the student. The limitations of the classification schema are the following:

1. There is no hierarchy of dimensions. That is, one dimension is no less important than another.
2. The dimensions are artificially separated for the purposes of analysis.
3. Each method is given a classification that is representative of the largest degree of factors in the dimension.

I. Physical Activity Dimension: This dimension classifies teaching methods as to their level of physical activity. Every strategy has some physical activity and direction. Some strategies require the student to sit and write; others to speak, demonstrate, etc., all according to purpose of desired outcome of the strategy. The levels of this classification are:

Category I - Passive: The student is a passive recipient of the information via sight/sound or combination thereof. Little activity is expected of the student within this category of teaching strategies. Other than sitting and writing, the strategies in the Passive Category provide the student with the necessary background of information to effectively participate in other categories of strategies. This level of activity allows the student to collect and organize his thoughts.

Category II - Responsive: This category asks the student to do more than receive information. It requires him to physically respond to the data. The student responds to the instructor and the subject matter by
sharing ideas, answering questions, asking questions, etc. The responding strategies help to develop the higher powers of reasoning and critical analysis.

Category III - Interactive: This category requires the student to do more than receive and respond orally to the information received. The student physically interacts with the data in some way—such as in a laboratory, experiment, simulation game, demonstration, field trip, socio drama, etc. The level of physical activity takes on a different dimension—the students are moving and doing, applying the concepts.

Examples of Physical Activity Classification

<table>
<thead>
<tr>
<th>Method</th>
<th>Physical Activity</th>
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</thead>
<tbody>
<tr>
<td>Lecture:</td>
<td>Passive (Students sit, listen and take notes; sometimes limited amount of questions are asked)</td>
</tr>
<tr>
<td>Discussion:</td>
<td>Responsive (Students answer questions, ask questions. Note-taking may also be part of process)</td>
</tr>
<tr>
<td>Games:</td>
<td>Interactive (Students respond to data by playing, moving objects, role-playing, etc.)</td>
</tr>
</tbody>
</table>

Note: The physical dimension of each strategy is only a means of identifying the level of physical activity and doesn't make judgments as to the worth or benefits of each strategy.

II. Cognitive Dimension: The cognitive domain represents a means of classifying knowledge and what is done with the knowledge such as recall, applying, or evaluating information. The following means of classifying knowledge provides a general formula for representing what cognitive skills are asked of the student via the teaching strategy. The two categories used in the classification of teaching strategies are:

(Primary) - Acquiring and Organizing: Within this category, the student receives and organizes the knowledge. The knowledge
(information) is categorized, translated into a meaningful manner for later recall and use. This primary cognitive category is necessary to give the student an essential background in order for him to effectively carry on the higher-order functions of the cognitive domain.

(Secondary) - **Utilizing:** This category requires the student to put to use the information acquired by applying, analyzing, synthesizing or evaluating. Once knowledge has been organized, then the student is expected to use the higher forms of thinking other than recall and memorization.

### Examples of Cognitive Classification

<table>
<thead>
<tr>
<th>Method</th>
<th>Cognitive Dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debate:</td>
<td>Secondary (Students put data into action—must use incoming data to form arguments)</td>
</tr>
<tr>
<td>Television:</td>
<td>Primary (Student is receiving and organizing information)</td>
</tr>
<tr>
<td>Drill:</td>
<td>Primary (Student gives knowledge back to instructor in repetitious manner—little higher-order thinking conducted)</td>
</tr>
</tbody>
</table>

III. **Affective Dimensions:** The affective classification refers to values, attitudes and feelings and how an individual acquires a set of values. The two categories of the affective domain used in this model represent the initial awareness of values and the actual implementation of those values.

(Primary) - **Attending and Receiving:** The student at this level is a willing listener to the message. He may respond by agreeing, asking questions, accepting or expressing a value, feeling. There is little opportunity or expectation to organize, commit oneself to the values presented.

(Secondary) - **Commitment:** The strategies that fall within this classification allow the student to demonstrate a form of
conviction concerning the value(s). The commitment may be in the form of defining one's views, attempting to convince others, using the values to guide their lives.

### Examples of Affective Classification

<table>
<thead>
<tr>
<th>Method</th>
<th>Affective Dimension</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field Trip:</td>
<td>Primary</td>
<td>(Student is observing, with possible dialogue, i.e., visit to nursing home)</td>
</tr>
<tr>
<td>Seminar:</td>
<td>Secondary</td>
<td>(Student has opportunity to express views, i.e., the place of nursing homes in our society)</td>
</tr>
<tr>
<td>Panel:</td>
<td>Primary</td>
<td>(If student is not a panelist, but part of the audience. Vice versa, it would be Secondary)</td>
</tr>
</tbody>
</table>

### SUMMARY

The selection of a teaching method or methods is a vital decision in that 60% to 80% of the class time is spent on teaching methods. Teaching methods can be classified as to their educational dimensions which is representative of the requirements and potential outcomes of the method. The three educational dimensions are: Physical Activity, Cognitive, and Affective.