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1. Creating a Climate for Learning

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Much has been researched and written about classroom climate and the need for a safe, nurturing environment with high challenge and low threat where all learners can thrive. This chapter explores ideas and strategies that can help teachers build this learning community so vital for success.

2. Knowing the Learner

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Teachers must make every effort to know learners in order to meet their diverse needs. Just as clothing designers must know about the many fabrics and styles to create a garment to suit the wearer, so in classrooms we teachers must know about our learners so that we may find the strengths and uniqueness of each child. This chapter describes learning-styles theories, identifies multiple intelligences, and provides tools to help teachers identify their students' learning styles and preferences.

Assessing the Learner

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Everyone needs feedback. Teachers and students need to exchange constant feedback to monitor progress and to adjust learning. It has been said that assessment drives the curriculum. Teachers need assessment tools to pre-assess to plan for learning as well as ongoing assessment tools to use during and after the learning process. Pre-assessment is essential for teachers to find out what students know, can do, and are interested in learning. If teachers use pre-assessment data when they are planning lessons, learners are not bored by repeating "history" or, conversely, lost with no frame of reference when the new learning is beyond their realm of experience. Suggestions and examples of effective pre-assessment tools are outlined as well as tools to use during and after the learning process. Ideas for grading are explored.

4. Adjusting, Compacting, and Grouping

After pre-assessment, teachers need to examine the data and adjust the learning based on students' knowledge, skills, past experiences, preferences, and needs. A practical process is shared that allows teachers to adjust learning. With knowledgeable and capable learners, compacting is a strategy that sometimes can be used, and several ways of compacting are shared and explained. Processes for grouping students for a variety of reasons are explored, and techniques to form groups and design interactions are examined. The chapter works with the acronym TAPS, representing Total or whole group, Alone or independent, Partner work, or Small group interaction.

5. Instructional Strategies for Student Success 79

Teachers everywhere are paying attention to how the brain works and makes meaning, and to what should go on in classrooms as a result of that knowledge. Instructional repertoire is a necessary component of classrooms that have a greater capacity to reach all learners. If students do not understand the content (or process or concepts) the first time the teacher presents it, "saying it louder and slower in another part of the room" will not make it any clearer. Extensive research is now available on best practices and pedagogy that make a difference in student achievement. This research is explored, and brain-based strategies are outlined.

6. Curriculum Approaches for Differentiated Classrooms

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There are a variety of useful curriculum approaches for facilitating differentiated learning. This chapter explains Centers, Projects, Problem-Based Learning, Inquiry Models, and Contracts and provides examples for each approach.

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Portfolios tell a story . . . put in anything that helps tell the story. (Paulson & Paulson, 1991, p. 1)

Select

Students select pieces based on guidelines. The criteria may include

- Best piece/something I'm proud of
- Work in progress
- Student/teacher selection
- Most improved/difficult piece
- Special or free choice

Every so often students will examine the pieces and decide which ones should stay in the collection and which should be deleted. Pieces may be deleted because

- · There is enough evidence of that competency already
- It doesn't really show what is needed
- A new piece is superior

Reflect

The student will then write a reflection to be attached to the piece that explains why it was selected, what criteria it satisfies. Over time, students add other pieces that may show growth from the last item or can replace others. Not all pieces are necessarily the best effort but may be included as baseline evidence to show growth in the future.

Project

Reflections and examination of items can lead to goal setting. Students can decide what to do next, what to focus on, what needs improvement, what to celebrate.

Portfolio conferences are effective ways to share student growth with others. Students articulate their learning and goal setting to colleagues, parents, and significant others.

Each student is an individual, and each portfolio will be unique to each learner, showing the individuality and growth of the learner.

GRADING

Teachers tend to give grades for many different reasons. There seems to be no commonly accepted yardstick for student achievement. Opinions about what should be evaluated and what actually is evaluated are aspects of ongoing dialogue among educators. Grades are often given to

- Measure content mastery—to show what the student knows in the subject area
- Chart progress—to communicate progress on individual goals and show the working level on a specific content
- Motivate students—to prod the student to work harder or to reward the student for trying and giving so much effort
- Provide information to a variety of audiences—students turn in their grades for recognition, awards, scholarships, and admittance into colleges and universities

Grades are not the only tools teachers use for their final evaluation of what students have learned. Ongoing assessments have been giving feedback all during the unit of study, and there are several possible class scenarios for the final evaluation:

- Give the common posttest to compare the pre- and postperformance. This is the same test given as the pre-assessment. The comparison of pre- and posttest may show progress or competence or lack of progress. If there are skills or content that requires more practice, the teacher will need to plan for that to happen. The results could also show areas of weakness for further study. Posttests will determine if students are knowledgeable, have improved, and have enduring understanding or need further practice for mastery to be acquired.
- Develop a test that evaluates the material studied by the different groups in the adjusted assignments. This test is based on the level of complexity of the study. Some of the questions would be on all tests. These questions would come from the information presented to the total group throughout the study. With this instrument, the groups of students would be given a written test consisting of the material the individual groups had studied. This system allows teachers to communicate students' achievements on the specific information that they have been studying. They are not being compared with the students working on a less challenging or more difficult area of the study.



Figure 5.1. Learning and Remembering New Information: A Complex Process

New information (for example a new flower species) that captures sensory attention (sight, smell, touch, etc.) can be transferred to short-term unconscious memory (1). There it can trigger the retrieval of other data (2) already stored in long-term unconscious memory about other flower species, in effect opening "flower" files with previous information that have been stored throughout the neocortex (3). By examining and relating the new data to previously learned data, the newer information can be transferred to long-term memory (4), that is, it can be learned and remembered.

Long-term memory is really of two types: declarative and procedural.

Declarative	Procedural
The "Facts"	"Autopilot"
Who?	Things one does without thinking
What?	 playing the piano
Where?	 driving a car
Why?	 doing up buttons
When?	 using the computer

Declarative memory is more conscious, whereas procedural memory is unconscious. Procedural memory starts as declarative. For example, when one learns to use a computer, each step is conscious and deliberate. Each step is in declarative memory: turn on switch, wait for screen, insert disk, double click on icon. After many repetitions, the process becomes automatic and can be done unconsciously. These procedures are stored in the cerebellum (little brain). Students require lots of practice to send informa-

tion and procedures to long-term memory. Practice may occur in a multitude of ways using a variety of Multiple Intelligences and as many modalities as possible to involve opportunities for visual, auditory, and tactile/ kinesthetic learners to develop understanding.

PLANNING INSTRUCTIONAL STRATEGIES

Information about the process of memory is useful for teachers as they plan programs for a diverse group of students so that the students can realize their potential. Teachers may want to ask themselves the following questions as they plan:

- What do I want students to know or be able to do as a result of this learning experience?
- How will we judge success?
- What do they already know and are able to do?
- How can attention be captured and sustained?
- What will the "emotional hook" be for the learners?
- How will new information and skills be acquired?
- How will students practice or rehearse to make meaning and understanding?
- How will they receive ongoing feedback during and after the learning?

FOCUS ACTIVITIES

If teachers are going to capture attention, they need strategies to do so. Focus Activities will

- Help the learner focus and pay attention
- Eliminate distracters
- Open "mental files"
- Provide choices
- Encourage self-directed learning
- Capitalize on "prime time"
- Fill unallocated time—extend or enrich or "sponge" up extra time