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The current effective teaching literature has identified certain process skills as critically important.

# Developing Process Curriculum Materials to Enhance Teacher Effectiveness

by Gerald D. Bailey

The flurry of curriculum development activities across the nation has never been greater than in the last decade. Thousands of schools have been actively involved in creating curriculum materials to enhance their effectiveness. School goals, competencies, instructional objectives, and other curriculum materials have found their way into school district curriculum guides. For many schools, these curriculum activities have not been concerned with creating new material as much as writing down what is currently being done; that is, identifying the existing curriculum. What appears to be missing in most of these curriculum development efforts is the creation of new curriculum materials in the form of process materials.

Process materials deal with student behaviors or skills which relate to learning or behaviors vital in the learning process, and, the current effective teaching literature has identified certain process skills as critically important in student learning. Specifically, the effective teacher research suggests that teachers organize and prepare students in the beginning of the school year with regard to rules and procedures, and routines (Anderson, Evertson and Emmer, 1980; Brophy and Putnam, 1979; Brophy, 1982; Emmer, Evertson and Anderson, 1980; Emmer, Evertson, Sanford, Clements and Worsham, 1984; Evertson, Emmer, Clements, Sanford and Worsham, 1984). The effective teacher literature stresses that teachers need to instruct students on how to function in the classroom and that this

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type of instruction should be repeated throughout the school year. Equally important, the research suggests effective teachers should instruct students about process as a matter of instruction rather than as a control strategy. Curriculum materials which deal with process (teacher effectiveness findings) are difficult, if not impossible, to locate in most school district curriculum materials. Many school districts have failed to identify those specific student process skills which they deem essential in classroom learning. Second, few attempts have been made to identify the sequence of how these concepts should be taught in the curriculum

## What is Process?

Process deals with student knowledge and behaviors which relate to learning of those behaviors vital in learning. Process involves rules and procedures, routines, and methods (activities). Process skills are different from cognitive, affective, and psychomotor outcomes. Process skills are concerned with student behaviors or understandings which are essential in acquiring cognitive, affective, and psychomotor outcomes found in the curriculum.

**Process Skill Classification Table I**

<b>Rules and Procedures</b>	<b>Routines</b>	<b>Methods (Activities)</b>
Absence	Daily Schedule	Inquiry
Misbehavior	Weekly Schedule	Small Group Instruction
Fire Drills	Reading	Cooperative Learning
Restroom Breaks	Board Work	Contracting
Drinks	Seat Work	Instructional Modules
Recess	Make-up Work	Gaming/Simulation
Tardiness	Watching Films	Demonstration
Lunch Break	Seating Arrangement	
	Homework	<b>(Strategies Found in Methods)</b>
	Equipment Storage	Case Studies
	Traffic Patterns	Panel Discussions
	Time Schedules	Field Trips
	Transitions	Charades
		Crossword Puzzles
		<b>(Human Relation Skill Found in Methods and Strategies)</b>
		Giving
		Reinforcement
		Asking Questions
		Giving Directions
		Giving Answers
		Expressing Opinions
		Building on Ideas

## What do Process Materials Deal With?

Process can be classified into three major areas: (1) rules and procedures, (2) routines, and (3) methods (activities). Generally, rules and procedures are those mechanical



things which occur on a daily basis and govern personal behavior and classroom decorum. They do not necessarily deal with academic learning but influence the learning environment. Routines are those things which need to be understood by the student and deal with academic learning. They are skills which assist the student during the daily and weekly functioning of learning. Methods or activities are those skills which actually need to be understood and demonstrated during learning activities. They include specific behaviors and actions which are necessary to learn content, develop attitudes or perform in the classroom. Examples of specific items found under the rules and procedures, routines and methods classification are identified in Table I. Those examples found in Table I are not intended to be all inclusive. Many other items can and should be added to the list (See Emmer, et al, 1984; Evertson et al, 1984).

Brophy and Evertson believe instructing students about classroom rules, procedures, and routines is very important. They argue that students at the early grade levels need a great deal of formal instruction in rules, expectations, classroom procedures, and routines while those students at the upper grade levels require less formal instruction in these areas (Brophy and Evertson, 1982). While it is easy to agree with Brophy and Evertson that rules and procedures, and routines need less emphasis at the upper grade levels, it does not seem feasible to make this same generalization about methods and activities. The depth of knowledge concerning methods and activities is quite substantial, and students need considerable training in how to use these methods at all grade levels.

#### What are the Necessary Steps in Process Curriculum Material Development?

One of the first steps that the school district needs to undertake is to identify major process competencies. These process competencies can be drawn from the three major categories related to process skills identified in Table I. Selected competencies from the three categories include the following:

- |                                 |  |
|---------------------------------|--|
| <b>1. Rules and Procedures:</b> | The student will be able to exit safely and promptly from the school building during a practice fire drill.<br>The student will be able to participate in recess activities for relaxation and enjoyment purposes. |
| <b>2. Routines:</b>             | The student will be able to work independently during seat work activities.<br>The student will be able to take notes which provide accurate information concerning subject matter.                                |
| <b>3. Methods (Activities)</b>  | The student will be able to identify and use the five steps of the scientific method.<br>The student will be able to function in teacher centered contracts (semi-independent learning).                           |

Major K-12 competencies related to process skills should be identified by the staff. Process competencies are distinctly different from subject matter competencies. Process competencies deal with how the student acquires subject matter outcomes while subject matter competencies

deal with cognitive, psychomotor and affective student outcomes.

The second major school district activity should include the identification and creation of process scope and sequence charts. A process scope and sequence chart is a written plan for specifying **what** process skills are to be included in the K-12 curriculum and **when** the process skills are to be taught. Scope is defined as what while sequence is defined as when. A comprehensive process scope and sequence chart is a graphic representation of those process skills included in a school curriculum. The major purpose of a process scope and sequence chart is to develop a master blueprint for process skill teaching. Process scope and sequence charts are distinctly different from subject matter scope and sequence charts. Process scope and sequence charts deal with how students learn subject matter while subject matter scope and sequence charts deal with cognitive, psychomotor, and affective student outcomes. The final major activity is the creation of curriculum materials which explain the process in great detail. These materials are included in the curriculum guide and they are used on a day-to-day basis.

#### What Do Process Scope and Sequence Charts Look Like?

While it is impossible to develop process scope and sequence charts which fit all school district situations, the following are illustrations<sup>1</sup> of process scope and sequence charts drawn from current school districts' process materials dealing with rules and procedures (Table II) and methodologies (Table III). School districts must create process scope and sequence charts to suit their own needs and situation, and process curriculum materials must be created by the total school district faculty which includes elementary, middle level, and secondary personnel. Ownership of the curriculum materials is vital if school districts expect the materials to be valued and used.

Process scope and sequence charts are not intended to dictate how the teachers should teach. They simply identify the what and where of process skills. Several advantages accrue from the development of such process materials:

1. Teachers will recognize when and where specific process skills are being taught.
2. Unplanned process repetition can be eliminated.
3. Planned repetition of certain process skills can be initiated systematically.
4. Students will recognize there is a planned progression of process skill development. They see there is a building block approach in acquiring process competencies.
5. Teachers are able to coordinate planning with other teachers as it relates to process skills.
6. The school system can ensure students will master specific process skills in a systematic fashion.

While there is no set approach to building process scope and sequence charts, rules and procedures charts can be identified for all subject areas while the scope and sequence charts for methods should be plotted for individual subject areas (e.g. science, social studies, math, language arts).

#### Conclusion

Traditional content curriculum materials are vitally important in identifying the "what" of the school curricu-



**Process Scope and Sequence Chart for Rules and Procedures—All Subject Areas**  
**Table II**

Rules and Procedures	K	1	2	3	4	5	6	7	8	9	10	11	12
Absence	-Rules -Consequences	-Review of Rules and Consequences -Printed -Bulletin Board	▶ ▶ ▶ -Parent Orientation ▶ ▶ ▶	▶ ▶ ▶	▶ ▶ ▶	▶ ▶ ▶	▶ ▶ ▶	-Total School Orientation -Parent Orientation ▶	-Review of Total School Orientation ▶ ▶ ▶	▶ ▶ ▶	▶ ▶ ▶	▶ ▶ ▶	▶ ▶ ▶
Misbehavior	-Rules -Consequences	-Review of Rules and Consequences	▶ ▶ ▶	▶ ▶ ▶ -Personal Discipline Program	▶ ▶ ▶ -Review of Personal Discipline Program	▶ ▶ ▶	▶ ▶ ▶	-In-school Suspension Policy Orientation	-Review of In-school Suspension Policy Orientation	▶ ▶ ▶	▶ ▶ ▶	▶ ▶ ▶	▶ ▶ ▶
Emergency Drills (Fire Drills)	-Rules -Practice	-Review of Rules and Practice -School Orientation	▶ ▶ ▶ -Review of School Orientation	▶ ▶ ▶	▶ ▶ ▶	▶ ▶ ▶	▶ ▶ ▶	▶ ▶ ▶	▶ ▶ ▶	▶ ▶ ▶	▶ ▶ ▶	▶ ▶ ▶	▶ ▶ ▶
Restroom Breaks	-In-room Rules	-Review of In-room Rules	▶ ▶ ▶	▶ ▶ ▶	▶ ▶ ▶	▶ ▶ ▶	▶ ▶ ▶	-Total School Orientation	-Review of Total School Orientation-	▶ ▶ ▶	▶ ▶ ▶	▶ ▶ ▶	▶ ▶ ▶
Drinks													
Recess													
Tardiness													
Lunch Breaks													

Process Scope and Sequence Chart for Methodologies—Social Studies  
Table III

Methods (Activities)	K	1	2	3	4	5	6	7	8	9	10	11	12
Inquiry	-What is Inquiry? -Asking Questions	-Review of What is Inquiry? — -Hypothesis (guesses)	▶ ▶ ▶ -Five Steps in Scientific Method -Teacher-Centered Inquiry	▶ ▶ ▶ -Solving problems with Inquiry -Library Skills	▶ ▶ ▶ -Oral Interview	▶ ▶ ▶	▶	-Teacher-Student Centered Inquiry  (State History)		-Student-Directed Inquiry  (American Studies)	▶ ▶ ▶ (World Studies)	-Inquiry with Contract  (Economics)	▶  Special Projects (Modern Problems)
Small Group Instruction	-Getting to Know Each Other	-Teacher-Led Small Groups	-Brainstorming	-Cooperative Skills -Library Skills	Role Identification for Small Group Leaders	▶ ▶ ▶	-Solving Major Problems with Small Groups	-Inquiry in Small Groups  (State History)		-Student-Centered Small Group  (American Studies)	▶ ▶ ▶ (World Studies)	-Leadership in Small Groups  (Economics)	▶  (Modern Problems)
Cooperative Learning													
Contracting													
Instructional Modules													
Growing/Simulation													
Lecture													



lum. The process curriculum materials identify an equally important segment of the curriculum dealing with the "how." The individual teacher's prerogative of determining how curriculum content is to be taught has been held sacred for many decades. While the development of process materials does not take this responsibility away from the teacher, it does require the teacher to identify what means are being used to teach that content. Teachers should maintain the right to teach using routines and methods with which they feel comfortable, but their total process efforts should be coordinated and planned with process curriculum materials. When there is no concerted effort to coordinate process outcomes, much student learning and ease of learning are left to happenstance. Process competencies and process scope and sequence charts should complement the existing content curriculum materials. Well articulated content curriculum materials can be implemented with greater ease and efficiency with the assistance of clearly defined process scope and sequence charts.

The ultimate outcome of a well-articulated process curriculum is a more well-rounded learner. One axiom of skilled crafts is that correct tools are needed to create quality products. Process curriculum materials become the correct tools with which teachers can create and deliver quality curriculum. The understanding of process skills allows students to become better and more satisfied learners. Those curriculum leaders who are desirous of enhancing student achievement and attitudes will find the creation and use of process materials exciting and rewarding.

<sup>1</sup>These process scope and sequence charts should not be viewed as exemplary or complete. They represent examples drawn from selected school districts who are working on experimental process materials. Individual school districts' process materials may vary considerably.

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