

Snapshot #4

Grouping for Mastery Johnson City Central School District

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Jocelyn A. Butler

RESEARCH FINDINGS

The use of instructional grouping in the classroom within a mastery learning framework as a means to improve student performance is supported by findings from the effective schools research. Identified in **EFFECTIVE SCHOOLING PRACTICES: A RESEARCH SYNTHESIS** (Northwest Regional Educational Laboratory, 1984), those research findings include:

At the CLASSROOM level:

1.2 THERE ARE HIGH EXPECTATIONS FOR STUDENT LEARNING.

1.3 STUDENTS ARE CAREFULLY ORIENTED TO LESSONS.

1.4 INSTRUCTION IS CLEAR AND FOCUSED.

1.5 LEARNING PROGRESS IS MONITORED CLOSELY.

1.6 WHEN STUDENTS DON'T UNDERSTAND, THEY ARE RETAUGHT.

1.9 INSTRUCTIONAL GROUPS FORMED IN THE CLASSROOM FIT INSTRUCTIONAL NEEDS.

At the SCHOOL level:

2.4 STUDENTS ARE GROUPEd TO PROMOTE EFFECTIVE INSTRUCTION

SITUATION

The Johnson City Central School District in Johnson City, New York, includes four schools: two elementary, one middle and one high school. Eleven percent of the population of 18,000 in the community have been identified as living in poverty; approximately 20 percent of the population are over 65 years of age; there is a large and growing Asian population in the district. Until its decline in the 1970s, a shoe manufacturer was the main employer, providing low or nonskilled jobs to immigrants and their families. All four schools have Chapter I students, and student turnover has been high: 13 to 15 percent for the district in the last 10 years.

CONTEXT

The Johnson City Central School District has, since 1971, applied a mastery learning approach to instruction in all district schools. The instructional model used in the district includes:

- Precise learning objectives in a coordinated curriculum taught using unit guides.
- Pre-entry assessments of students to assure they have mastered prerequisite skills necessary for any new material. Teachers intervene to teach those skills to students needing them; students who have the skills are given enrichment activities.
- Cue set learning in which teachers tell students what they will be learning, how, why, how long it will take and prepare them for learning it.
- "Best Shot Instruction," the initial teaching of new material, using at least two modes of instruction, with content tied to the essential curriculum objectives. This is followed by a formative assessment to check student understanding.
- Practice of new learning and skills, both guided (under the teacher's supervision) and independent (assignments, both in-class and homework).
- Correctives and enrichment activities, with reteaching and reassessing for students who have not mastered the material and exploration/investigation activities for students who quickly master new skills.
- Review and feedback on the material.
- Summative assessment to assess learning of essential objectives.

The mastery approach to instruction is an integral part of the district's Outcomes-Driven Developmental Model (ODDM), a program designed to accomplish comprehensive districtwide school improvement. The K-8 model received JDRP validation in June 1985, and in September 1986 Johnson City was incorporated as a funded member of the National Diffusion Network. The ODDM employs a systematic change process that is applied to all facets of school operation, such as instructional practices, curriculum design, school climate and school management. Since the institution of the mastery approach within the ODDM framework, student performance has steadily improved throughout the district.

For further information about the district: Dr. Al Mamary, Superintendent, Johnson City Central School District, 666 Reynolds Road, Johnson City, New York 13790

PRACTICE: GROUPING FOR MASTERY

Teachers are using a variety of grouping practices within the mastery learning instructional model in the district.

EXAMPLE 1: MATH, GRADE 3

A team of four teachers and an instructional aide are responsible for 100 third graders; each teacher has 25 students in a home base classroom, but they have collective responsibility for the entire group. Classes are divided randomly, and each of the four classes is a heterogeneous mix of students in terms of achievement levels, socioeconomic status, race and gender. Among themselves, the teachers have established a daily schedule so that all teachers are teaching the same subjects at the same times during the day.

These four teachers and the aide meet daily for a 40- minute planning session. They work closely together to assure that they are all teaching the same material at roughly the same time. Typically

they plan all to complete a certain unit in their classes within the same two-week period so that all students are tested for prerequisite skills on the same day, receive the same material over the same few days, undergo formative testing at the same time and are tested for mastery on the same day. Individual teachers are responsible for teaching the material but they are moving the entire group of four classes ahead at approximately the same pace.

All four classes are about to begin a new math unit. There are six skills to be mastered in this two-week unit. On the same day, all students are tested with the same teacher-developed pencil and paper test for their mastery of prerequisite skills. Of the 100 students tested, 7 are not yet ready to learn the new material. These seven move to the learning center with the aide to spend the rest of the math period in intensive review while the other students do enrichment activities with their teachers. If more than eight students do not have the prerequisite skills, one of the teachers will work with this group and the aide will take one class through the enrichment work, designed to deepen the understanding of the current skills but not to begin ahead of the others on the new work.

The next day, students rejoin their home base classes for math again, and all students are given a pretest on the new skills. The results indicate a wide range of skill levels among the 100 students. Eighteen of the students already have mastered the new skills according to the test; nine have mastered three or four of the skills; eleven have mastered one or two of the skills; the remaining 62 students have mastered none of the skills.

The unit has sequenced lessons with each lesson tied specifically to one of the six new skills. For this unit, one teacher will provide enrichment activities in one classroom while the other three will do "best shot" initial teaching to the rest of the students. The teachers trade responsibilities for enrichment with each new unit to avoid having one of them associated with the "advanced" materials.

In planning instruction based on pretest results, the teachers as a group decide that the 11 students who have only mastered one or two skills will remain with the main group and go through basic instruction with them. The 18 who have mastered all the objectives will have enrichment activities on these skills, with special projects or alternative activities to deepen their understanding of what the entire group is doing. The nine students who know some of the skills will be placed in the enrichment group but will be returned to one of the other classrooms when the skills they do not know are being taught. All students will complete the same homework assignments.

In this way, the entire group of 100 students continues to concentrate on the same six skills for the entire period of time set aside for this unit in math. At the end of the unit, all of them take the summative test for mastery of the material before moving on to the next unit.

EXAMPLE 2: SIXTH GRADE LANGUAGE ARTS

Teachers at the middle school are teamed at each grade level. There are separate areas established in the school building with a cluster of classrooms set aside for each teaching team. The school schedule includes a 45-minute study hall for all students at 12 noon. Students are assigned at random to teacher teams which results in heterogeneous classrooms.

In one of three sixth-grade teams, four teachers and one special education teacher are responsible for 80 sixth grade students. Teachers are multi-disciplinary. They plan instruction together and use each other as resource people for corrective and enrichment activities as they move through the curriculum units.

One teacher is responsible for language arts instruction for all 80 students. In one case, the teacher introduces new material in a unit and 12 students are identified as needing assistance in understanding the material. This group of 12 are called in at noon during the study hall time period and the teacher reteaches them the material. There are two or three students who have mastered the skills but have no work to complete during this time, and they join the group and assist the teacher by coaching the other students.

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