Mastery Learning: Sound In Theory, But...

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Mastery learning sounds promising, but there are a lot of problems with using it in classrooms.

Mastery learning is an optimistic and generous theory of school learning based on the notion of managing learning rather than managing learners. The theory suggests that schools can provide not only equality of educational opportunity but also equality of educational outcome (Bloom, 1976). The research from mastery learning indicates that approximately 95 percent of our students can learn everything the schools have to teach and that they can learn it at a mastery level with little additional expenditure of instructional effort (Block, 1971). Mastery learning seems to fit well with our present concerns about school learning. What then is the source of our discomfort with it, and why hasn't it been more widely used?

Need for Highly Specific Educational Goals

For mastery learning to succeed, carefully and specifically stated educational goals have to be outlined. While we can agree in broad terms about our educational goals (for example, basic literacy), it is unlikely that we, as professionals on the national scale, can come to agreement about specific educational goals. For mastery learning to work on any broad front, wide range agreement on specific goals is necessary. At this time it seems unlikely that the profession is able or willing to come to the necessary specificity.

Scarcity of Sophisticated Diagnostic and Assessment Tools

For mastery learning to succeed, more and better scientific instruments for diagnosing student academic problems and assessing gains must be readily available to teachers who are trained in their use and interpretation. This is simply not the case at present. Where more sophisticated evaluative tools are available, they are used by psychologists and researchers, not by classroom teachers who would be required to use them largely independent of help from specialized personnel.

Lack of Corrective or Remedial Instructional Treatment

A vital component of mastery learning is effective corrective instructional treatment at each step of

the educative process so that all students are kept on the path to mastery. If this component fails, the entire process fails. At present we have neither enough resources nor well-defined, alternate instructional modes to assure that mastery learning will work well in most schools. We are more able to provide the kind of corrective help needed in basic skills areas than we are in areas where we are trying to teach students to think creatively and independently, or to work in fields requiring prediction and decision making.

Concern for Teacher Time and Energy

Research suggests and the advocates state that a 95 percent mastery rate can be achieved with as little as a ten to 20 percent increase in instructional effort. Research also suggests that even though some students require more time for mastery than others, the time difference will not be great. However, many teachers perceive themselves to be working at full capacity now. The effects of an increase of only ten to 20 percent time and effort are overwhelming. In addition, the ten to 20 percent increased effort is required on top of the initial effort needed to write specific goals, design or discover appropriate evaluative tools, and plan the instructional strategy. Unless a teacher is completely dedicated to the concept of mastery learning, the enormity of the task is likely to hinder widespread adoption of mastery learning into classrooms.

Increased Emphasis on Early Childhood Education

If the cognitive entry skills account for up to one half of the variance on relevant cognitive achievement measures over subsequent learning tasks and the affective entry behaviors account for another one fourth (Bloom, 1976), the implication seems clear. More attention must be paid to learning in the early years of life. For mastery learning to succeed, we must recognize the importance of early childhood education at the primary, kindergarten, and preschool level. This may mean reversing traditional spending patterns for education and spending more in the early years and less in later years. Whether educators and the public are willing to act on what we know about the importance of the early years is an open question, too. Without some considerable action mastery learning will certainly be curtailed.

Difficulty of Defining Curriculum for Mastery

Does mastery learning suggest a closed end curriculum? Is a learning ceiling established? After a student has achieved mastery, then what? What, if anything, is beyond mastery? Does the teacher provide additional content for mastery? If so, are 95 percent of the students expected to master this enrichment material too? What will the curriculum be? Can there be an upper and closed limit to what one can be expected to learn at any level?

Dealing with the sticky problem of definition of curriculum is an inherent concern in working with mastery learning, because before we can intelligently talk about mastering a curriculum, we must come to grips with what is to be mastered. As anyone who has taken a graduate level course in curriculum organization and planning can testify, this is a problem with no simple answer. Until some of these questions are resolved, mastery learning is likely to stay outside the mainstream of American classrooms.

Problems with Time and Content Variables

The traditional uses of time and content must be reversed for mastery learning to succeed. In most

schools time is a fixed variable (45-minute class periods, five-and-a-half-hour school days, 185-day school years), while the amount of content mastered is a flexible variable (the amount of content mastered depends, to a large extent, upon what each student is able to learn within a fixed time span). Mastery learning requires flexible time slots but assures a fixed mastery of content—that is, most of the students would achieve mastery although at varying rates (Carroll, 1963). While this idea is uncommonly
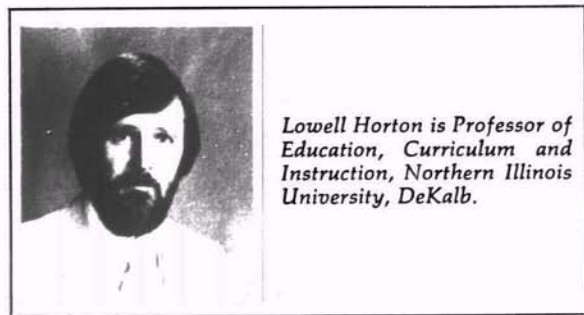
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appealing in terms of what we know and believe about human learning, we have yet to invent any practical means for implementing this concept in the real world of day-to-day school planning. Until we are able to overcome the barrier of fixed time-variable content, we cannot use mastery learning to the extent its advocates suggest.

The Stigma of a Behavioristic-Based Model for Teaching Strategy

Educators are generally humanistically-oriented people who look askance at any model for teaching that is grounded in a behavioristic model for teaching and learning. Most teachers seem to reject the notion that learning can be broken down legitimately into small bits and pieces, and presented to the learner in a sequential and systematic fashion. While it is argued that mastery learning is not completely or purely rooted in behavioristic psychology, the connections are well-founded enough to raise concern and distrust on the part of many teachers. For mastery learning to succeed, teachers will have to be convinced that it can contribute divergent and creative learning styles. If mastery learning is perceived to be at variance with most teacher's experiences of what constitutes a good learning environment, it cannot succeed despite sound theory and ample research.

Limited Teacher Skills for Using Mastery Learning

Mastery learning assumes skills that teachers do not usually possess in the amount needed to assure success. The available models for mastery learning

provide only broad, general guidelines, and leave the filling in of day-to-day and minute-to-minute strategy up to the teachers. Most teachers would undoubtedly agree with the proponents of mastery learning that instruction should be approached sensitively and systematically, that it should take into account the entry behaviors of the learner, that students should be given help when and where they have learning difficulty, that student participation in learning is necessary, and that frequent and appropriate feedback and reinforcement are essential (Mueller, 1976). These are sound principles of teaching and learning under any instructional design. But what is to be done with these principles as they exclusively relate to mastery learning? Teachers will need more training before mastery learning can be widely used in classrooms.

Mastery learning is a promising theory, but it is neither simple nor readily adaptable to regular classrooms on a large scale, as many of its proponents have claimed. Mastery learning involves some sound but revolutionary ideas, which would have to result in revolutionary consequences when viewed in the context of present instructional practices and organizational patterns (Harvey and Horton, 1977).

There are many unanswered questions arising from mastery learning, but it does provide some exciting and provocative assertions that should cause us to question the way we presently view teaching and learning. We will probably find that it will never be *the* answer for everyone or even for most but we may very well find it useful for *some* teachers to use in *some* situations to teach *some* children *some* things.

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