

Updated Edition of Madeline Hunter's

MASTERY TEACHING

Increasing Instructional Effectiveness in
Primary and Secondary Schools

Revised and Updated by
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Correlation of Mastery Teaching to the Australian Professional Standards for Teachers

		Relevant Chapters																
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Standard 1: Know students and how they learn																		
1.1	Physical, social and intellectual development and characteristics of students									•								
1.2	Understand how students learn	•			•	•		•								•		•
1.5	Differentiate teaching to meet the specific learning needs of students across the full range of abilities	•											•					•
Standard 2: Know the content and how to teach it																		
2.1	Content strategies of the teaching area	•	•				•								•	•	•	•
2.2	Content selection and organisation				•	•				•								
Standard 3: Plan for and implement effective teaching and learning																		
3.1	Establish challenging learning goals												•					
3.2	Plan, structure and sequence learning programs				•							•	•		•			
3.3	Use teaching strategies	•						•				•		•		•	•	•
3.4	Select and use resources						•											
3.5	Use effective classroom communications													•				
3.6	Evaluate and improve teaching programs	•						•	•									•
Standard 4: Create and maintain supportive and safe learning																		
4.1	Support student participation		•							•								
4.2	Manage classroom activities										•				•			•
Standard 5: Assess, provide feedback and report on student learning																		
5.1	Assess student learning									•								
5.2	Provide feedback to students on their learning																•	
5.4	Interpret student data		•															

Preface

This book is a revised edition of *Mastery Teaching* that has been updated for Australian audiences. Written by Madeline Hunter and first published in 1982, *Mastery Teaching* was developed to increase the teaching effectiveness of those who work with teenagers and young adults. Madeline's work in bringing the science of teaching to the art of delivery was a breakthrough 40 years ago, and is still being validated by continuing research. In 2004, a second edition of *Mastery Teaching* was published with updates by Robin Hunter, and the work has now been revised again to reflect contemporary Australian teaching practices.

This edition of *Mastery Teaching* is correlated to the Australian Institute for Teaching and School Leadership's (AITSL's) Professional Teaching Standards, which outline what Australian teachers should know and be able to do. The guide on page vii shows which key areas of the AITSL standards are represented in *Mastery Teaching*, while tables at the beginning of each chapter outline the relevant key areas and show which skills are required to achieve proficiency. The information in these tables has been sourced from the AITSL website, found at www.teacherstandards.aitsl.edu.au/Standards/Standards/AllStandards.

Chapter 1

Decisions in Teaching

Educators have finally arrived at the understanding that professionals in medicine achieved long ago, when the latter discovered that germs, and not evil spirits, were the cause of many health problems. We now know of many cause-effect relationships in teaching and learning. As a result, we can use those causal relationships to promote student learning in the same way a doctor uses medical knowledge to promote health. In both education and medicine, we are learning more each day even though much we don't know still remains.

Whenever humans are involved, we are dealing with probability, not certainty. Medication may increase the probability of a patient's recovery, but it does not guarantee it. In the same way, if teachers base their decisions and actions on the principles presented in this book, the probability of student learning will be increased, but it will not be guaranteed.

There is no question that genetic endowment and past experience influence student learning, but your own teaching decisions also have a powerful impact. Consequently, teaching can be defined as a constant stream of professional decisions made before, during and after interaction with the student; decisions that, when implemented, increase the probability of learning. Students learn more through effective teaching than when they try to learn on their own. Even champions have coaches.

Since the 1960s, educators at the University of California, Los Angeles, have been studying teaching decisions and their implementation – the essence of the teaching process. They found that, regardless of who or what is being taught, all teaching decisions can be placed into three categories:

1. What content to teach next
2. What the student will do to learn and to demonstrate learning has occurred
3. What the teacher will do to facilitate the acquisition of that learning

When professional decisions are made on the basis of sound psychological theory, and if those decisions also reflect the teacher's sensitivity to the student and to the situation, learning will be increased. When errors are made in any of those three categories of decisions, student learning can be impaired. Consequently, it is important for teachers to identify consciously and deliberately the decisions they must make in each category and base their decisions on research-validated knowledge. Equally important is the teacher's ability to "read" signals from students, and to assess the learning situation, so necessary adjustments can be made.

THE CONTENT DECISION

The first professional decision is to answer the question, “What will I teach?” Perhaps you believe that the decision has already been made. You’re to teach year twelve English, first-year reading, Australian history, computer science, year five mathematics or French. However, those subjects merely label the arena in which you will make this decision. In today’s world of year-level content standards, that arena has been even further defined, narrowing the focus of instruction. The content decision referred to here is the answer to the question “What do I teach this group of learners today?”

Dependent and Independent Sequences

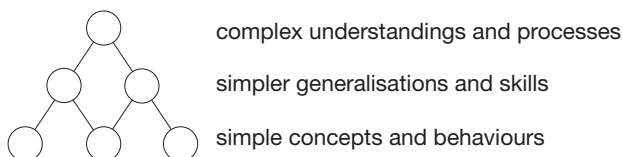
Whatever the subject or the content standard within that subject, the answer to “What do I teach?” must reflect your knowledge of what that particular group of students already knows in relation to that content standard and what is next to be learned. This process is very different than having what comes on the next page in the textbook make your determination.

The psychological generalisation that guides your decision should be that basic concepts, as well as simple generalisations and processes, must be acquired before more complex learnings can be achieved. Advanced processes and understandings are built on a pyramid of simpler ones.

Brain research identifies this process as building synaptic connections or programs through experience. Students arrive with differing educational and life experiences and, as a result, have different connections and programs on which to build new learning. Therefore, to make the decision about the content you are going to teach successfully tomorrow, you need to determine which prior learnings are prerequisite to more complex ones. Make sure those essential learnings have been acquired by your students (not presented to) before introducing advanced material. This is called a dependent curriculum sequence. In this sequence, prior, simpler learning must have occurred before more complex learning can be achieved. For example, a student needs to be able to write sentences before being able to write a paragraph and write a paragraph prior to writing related paragraphs. The student must have one-to-one correspondence prior to dealing with quantities greater than one. The student must be able to solve for one unknown before solving for more than one. Much of our school curriculum is characterised by dependent sequences.

1

Pyramid of Processes and Understandings



On the other hand, in some things we teach, the order of acquisition doesn’t matter. One can first learn a noun or a verb. One can learn to add first or to subtract first. The Federation of Australian can be learned prior to the Industrial Revolution. There may be a logical reason

for teaching in a certain order, but there is not a psychological reason. This is called an independent sequence: The order of learning doesn't matter. When dealing with a dependent sequence, assessment becomes essential to planning and implementing effective instruction. There is a myriad of assessment tools, ranging from performance assessments to informal, quick assessments used during teaching to determine students' current knowledge and skill levels. It is a waste of valuable instructional time to attempt to teach skills and concepts when there is insufficient prior learning to support the new learning or to teach skills and concepts already possessed by the student.

From Decision to Acquisition

Once the decision has been made about the *what* of teaching, the content decision, teacher and student effort should be directed to the acquisition of that new level of learning, not be dissipated on non-essential or tangential matters. It is tempting to spend class time on vivid or interesting "bird walks" that may distract attention from, rather than enhance understanding of, more important issues. A typical example is, "By the way, that reminds me of something that happened. . . ." If "what happened" will help students understand what is being presented, by all means use the example. If "what happened" is tangential or only loosely related, don't waste time by introducing it. If you have loads of extra time or comic relief needs to be introduced to brighten up the lesson, a bird walk might be forgivable, but most of us find that time and energy are in too short supply to be expended on loosely associated material or random exchanges between students and teachers.

This does not mean you should ignore students' non-relevant comments. It is a sign of skill in teaching to dignify a student's extraneous contribution without letting it dilute the lesson. "That's an interesting point that will come a little later," usually will handle a tangential contribution. Then do return to it later, either with that student after class or with the group at a time when it is relevant: "Remember when Dylan cited an example of . . . ?"

Don't believe that disciplining yourself with regard to your content decision imposes rigidity on your teaching – it doesn't. Rather, it adds the professional rigour that leads to successful learning. Remember, you're the decision maker. If, during class, a better idea emerges than the one you had planned, by all means, pursue it. Be prepared, but be flexible.

In some cases, you may wish to delegate the content decision to your students and let them decide when they have achieved sufficient mastery to move on. However, as their teacher, you can't delegate your responsibility for the results of that decision and for its potential to increase or interfere with the probability of student learning.

THE DECISION REGARDING STUDENT LEARNING BEHAVIOUR

While the first decision of teaching is based on content, the *what* of teaching, the second decision is directed at the student behaviour that makes learning possible, the student's *how* of learning. Two important factors affect student learning behaviour: input modalities and output modalities.