

# Component/Composite Fluency with Handicapped Students

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**Background** During the 1970's, after Eric Haughton introduced the element/compound (later called component/composite) approach to curriculum design in Precision Teaching, we and our associates at the Behavior Prosthesis Lab and in the Boston area began designing instructional materials and procedures intended to test and demonstrate the effectiveness of this approach.

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**Reference** Although unpublished, this work was originally reported in a series of presentations including:

Binder, C.V. The effects of response rate building on acquisition, transfer, and retention of skills. Presented at a meeting of the Behavioral Intervention Project, Arlington, Massachusetts, May, 1976.

Binder, C.V. & Haughton, E.C. Attempts to develop fluency in behavioral elements. Invited presentation at the Winter Precision Teaching Conference, Orlando, Florida, March, 1982.

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**The problem** Working with teachers and other staff in institutions and special needs schools, we found that most efforts to produce lasting self-care and vocational repertoires in severely handicapped learners simply did not work. This included use of then state-of-the-art backward chaining procedures. The problem was that when teachers attempted to build chains of behavior in such students, the links would often fail to "stick" to one another and/or the students frequently lost the chained behavior within days. In addition, the typical prompting and fading procedures used in backward chaining were awkward and did not allow students to perform at anything approximating normal rates.

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**Two examples** We and our colleagues began to devise procedures and materials intended to support practice of behavior components "in isolation." Examples included:

Composite / What Happened	Components
Using toilet paper (J. Pollard)  After practice on these elements until each one could be performed within the range of normal adult frequencies, many students began to wipe themselves with only minimal prompting from attendants. Others required a minimal amount of additional instruction.	<ul style="list-style-type: none"><li>• sort painted (brown) from unpainted wads</li><li>• wad or "glove" toilet paper in hand</li><li>• tear off uniform length of toilet paper</li><li>• move hand in one direction against surface (prevented from reversing direction)</li><li>• wipe substance off raised surface</li><li>• wipe substance off visible body surface</li><li>• wipe substance off invisible body surface</li></ul>
Assemble simple wood shop product: four coat hooks screwed to wood plate (K. Solsten, R. McManus, R. Azstalos)  After practice of components, some students spontaneously performed the entire task that they had failed to master after months of conventional chaining instruction.	<ul style="list-style-type: none"><li>• align coat hooks against holes</li><li>• place screws in holes</li><li>• twist screwdriver held in upright jig</li><li>• place screwdriver in slot on screw</li><li>• tighten screws already in holes</li></ul>