# Critical Review:
## The effectiveness of errorless learning in the treatment of word finding difficulties for persons with aphasia

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This critical review examines the effectiveness of errorless (versus errorful) learning in the treatment of word finding difficulties for persons with aphasia. One review of the aphasia literature and three studies using a single-subject design were analyzed to determine the clinical effectiveness of using errorless learning as a therapeutic technique in the treatment of word finding difficulties. The results suggest that errorless and errorful learning are equally effective.

### Introduction

Our ability to function effectively in the world is highly dependent on language. Therefore, an acquired language deficit can be extremely debilitating and distressing for both the patient and those people around them (Fillingham et al., 2006). Aphasia is defined as "an acquired communication disorder caused by brain damage, characterized by an impairment of language modalities: speaking, listening, reading and writing; it is not the result of a sensory deficit, a general intellectual deficit or a psychiatric disorder" (Chapey & Hallowell, 2001, pp. 3). The term anomia is used to describe word-finding difficulties, which is perhaps one of the most common and disabling symptoms found in cases of aphasia (Fillingham et al., 2003). There are many examples of therapies in the literature that are

of the participants language and cognitive skills predict therapy outcome, to compare error rates for each technique, and to explore the effect of self-generated versus examiner generated responses by looking at error rates during each treatment. Again, a multiple baseline, crossover case series design was used.

In latter two studies a case series design is again appropriate given that the examiners are comparing accuracy and error rates for each type of therapy. The authors introduced crossover, (i.e., the counterbalancing of the two treatments within the sessions) in the last two studies, in order to control for an effect of the order of treatment. By adding this additional level of control, they strengthened the design of the last two studies.

A strength of these three studies is that they use multiple baselines to determine naming accuracy before treatment. Baselines are an important control strategy in single-subject designs (Hedge, 1994). The absence of treatment in the baseline condition makes it the control condition against which the treatment conditions can then be compared. However, baselines

designs the conclusions of the study can not be extended to the general population (Hedge, 1994). The critical review does suggest ways that the studies could be strengthened however; these three studies provide moderate evidence regarding the effects of errorless learning. Based on this evidence, and given that the participants in these studies indicated that they