ABSTRACT
The present study was undertaken to determine the differential effect of type of task similarity (i.e. phonemic and semantic similarity), anxiety and imagery type (i.e. visible and audible) on short- and long-term memory. The hypotheses formulated for the present research are briefly stated as follows:

(a) Does phonemic similarity affect short and long-term memory differentially?

(b) Does semantic similarity affect short- and long-term memory differentially?

(c) Does anxiety affect short- and long-term memory differentially?

(d) Does imagery type affect short- and long-term memory differentially?

(e) Is there any interactional effect of stimulus similarity, anxiety and imagery type on short- and long-term memory?

A factorial design of experiment was used in which three independent variables (i.e. type of similarity, anxiety and imagery type), each varying in two ways, and two measures of the dependent variable, namely retention (i.e., short-term recall and long-term recall) were employed. Thus there were eight possible combinations for each of the two measures of retention.
A mixed-list of paired-associates consisting of phonemically similar stimulus items and semantically similar stimulus items, was presented to four groups of subjects, with order of presentation of the two sets of pairs being counterbalanced for half of the subjects of each group. The four groups of subjects, namely, high-anxious-visile, high-anxious-audile, low-anxious-visile and low-anxious audile, used in the experiment were selected on the basis of scores obtained by them on Sinha Anxiety Scale and on adapted form of Bower's and Kraeplin's tests of imagery.

The recall scores obtained by each of the four groups for phonemically similar items and those for semantically similar items, though presented in a mixed-list, were treated as separate observations. A modified form of 2 x 2 x 2 analysis of variance was used to analyze the data obtained in the present study. The results showed that phonemic similarity has detrimental effect on short-term recall but has no such effect on long-term recall, whereas semantic similarity depresses long-term recall but has no effect on short-term recall. As regards the effects of anxiety and imagery type, it has been found that both anxiety and imagery type have no differential effects on short- and long-term recall. An interaction, however, is found between imagery type and type of similarity in case of long-term recall. No such interaction has been found in case of short-term recall.