PREFACE

Industrial and organizational psychology grew out of psychology's early success in describing and measuring differences between people. During the World War I the application of psychology as a science and psychologists as practitioners was literally thrust into the domain of work behaviour. During the twenties and thirties, measurement of individual differences expanded even more, and the implication of much measurement for occupational choice, vocational guidance, counseling, and for programmes of personnel selection and placement in organizations became widely apparent. Measurement of human attributes like aptitudes, abilities and skill remains today as the critically important first step in industrial programmes related to the selection and placement.

The use of psychological tests for various applications have come for criticism from many quarters. Rhetoric apart serious doubt have been raised regarding the generalizability of tests, the test biases and reliability and validity of tests.

It is alleged that the 'true' scores are confounded by such factors as response bias, social desirability, response tendency, etc., on the one hand, and age, education,
ethnicity, sex and other demographic variables on the other. Many attempts have been made to isolate and understand the effect of these factors on test performance so as to arrive at a true score or measure of individual differences and individual's standing on the test. Unless this has been done it may not be meaningful to compare people with different backgrounds on their test performance. This study is also one such attempt where it is tried to understand the effect of age, education, experience, state ethnicity, urban-rural background and practice/exposure on performance on a few selected aptitude measures which are widely used all-over the world in psychological researches, and as tools for assessment of individual differences for educational selection, vocational guidance, and selection purposes. Since the tests are of the performance type it is assumed that the scores on them would be less affected by response bias, response tendency or by social desirability, which influence more the performance on cognitive and personality tests. Thus only the effect of practice and some demographic variables on strength, eye-hand coordination, manual dexterity, finger dexterity, perceptual motor coordination, and simple and choice reaction time has been studied.

The report is organized into four broad chapters. Chapter I provides for the field and the justification of the study. The definitions of ability, aptitude and skills has been briefly stated and after which the historical perspective of
aptitude testing has been noted. A review of research enumerating the factors (like age, education and experience) influencing performance on aptitude tests is presented and thereafter the main objectives of the study is laid down.

Chapter II is a description of the methodology which includes the sample - its composition, its distribution, the description of the aptitude tests used in the study, data collection procedures adopted in the study and the plan of data analysis.

Chapter III dealing with data analysis and results reports the findings of the study as per the plan of analysis adopted.

Chapter IV discusses the findings. The findings are examined in reference to past research findings. Lastly, the conclusions drawn from the present findings are stated and the implications raised from the study is identified.

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