

PREFACE

Man distinguishes himself from other creatures by his abstract reasoning capacity and his ability to communicate his knowledge by highly complex symbolic processes. There are few scientists who have explored the universe of cognition, and contributed to the understanding of the realm of knowledge, with greater genius, care, and scientific intuition than Jean Piaget.

This report is on a study attempting at inducing the development of logical operations, based on the Piagetian theoretical framework, through a 'guided discovery' based model of instruction in an actual Indian urban classroom condition, taking into consideration all its constraints. There is no study conducted in Indian conditions to derive implications for the experiment mentioned above. This makes it necessary to make the report comprehensive and self sufficient. Therefore, the Piagetian theoretical framework is briefly described and the question of inducing cognitive development is discussed. What follows is an empirical support to this hypothesis. Studies on acceleration of cognitive structures conducted under different field conditions are reviewed tracing a trend and deriving implications for a model of instruction which might induce cognitive development of learners. Following this the field conditions in India is presented and a model of instruction suitable to these conditions to induce cognitive development is detailed. Subsequently the procedural details of finding an answer to the research question is described.