

DEVELOPMENT OF OBJECTIVE TYPE ACHIEVEMENT TEST IN SCIENCE (BIOLOGY) FOR X CLASS STUDENTS

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ABSTRACT

This paper has been designed to develop the achievement test in the subject of Science (Biology) for tenth class students. Different steps followed to develop the achievement test were Planning, Preparation, Pre try-out, Try-out, Scoring, Item analysis (difficulty and item discrimination) and Final form of the test. Initially, an objective type achievement test including 110 multiple choice items and fill in the blanks was administered for try-out to 200 students selected randomly from different secondary schools in District Sonapat. Final selection of the items was made on the basis of difficulty value and discrimination index of each item. The investigators selected most of the items of medium difficulty and a few of higher and lower difficulty values were also included. Ebel's (1979) criteria and guidelines were used for categorizing discriminating indices. Split-half method was used for estimation of reliability and 0.90 was found as the calculated value of Reliability coefficient. The test was also validated against the criterion of content validity. It was reported that most of the items were falling in acceptable range of difficulty and discrimination level; however some items were rejected due to their poor discrimination index. In this way, 70 items were selected for final test. The scoring key for the final test was also prepared. The time limit for the final test was 70 minutes.

KEY WORDS: Item analysis, Difficulty Level, Discrimination Index, Reliability, Validity.

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