E-Assessment through Multiple Choices Questions & Implementation of Item response Theory

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Dedication

This project is dedicated to our beloved parents, who have been a source of motivation and encouragement for us during the whole period we had been involved in this degree. Their constant support and belief in us have encouraged us to put all efforts in achieving our goals.

Acknowledgement

All praise to Allah Almighty who bestowed upon us the strength, knowledge and the vision to visualize and then execute this project. Our humble gratitude goes to our project supervisor Engr. Muhammad Asim Qureshi who was a constant source of encouragement for us. We are also thankful to our friends who have helped us with our endeavors. Finally, we thank our parents for their perseverance and the confidence they had in us that we would accomplish our goal.

Abstract

E-Assessment System was proposed to develop an online tool for automated Item review, paper generation and results compilation. It was observed that the items given in the MCQs type questions are not properly tested according to the response of the average test takers depending on their IQ level. The data of item stems and distracters from different test conducting agencies were collected and developed a databank for the system. An application is also developed to collect expert opinions on items which is supervised by the administrator and the System Incharge. Separate Account statements were generated for facilitating the payment process of expert and reviewer. Paper is generated from the databank according to set criteria proposed by the admin and supervised by the System Incharge. The paper is saved in the separate database ordered with respect to date and time of test. The confidentiality is maintained at all levels to ensure transparency of paper generation and result compilation. After the results, analysis of each question item is updated automatically based on the average correct response, average time of response and no response of the test takers. The databank is auto updated if required changes in criterion of items. Black box testing technique is used to test the main functionalities of system.

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