

Chapter 4

AWARENESS SCALE OF MATHEMATICS TEACHERS FOR THE HIGH-STAKES TESTS: A SCALE DEVELOPMENT STUDY

Büşra Şule ÇETİN¹
Mithat TAKUNYACI²

INTRODUCTION

It is known that the general approach of the international scale in restructuring education programs is to develop skills such as problem-based and inquiry-based learning, creativity, and critical thinking (ERG, 2018). In the development of training programs; Four basic elements are taken into consideration: purpose, content, teaching-learning process, and evaluation. The elements of the education system are interactive with each other (Baykul, 1992), and the process is needed for the acquisition of desired behaviors or the development of existing behaviors, which are the inputs of the education system. Behaviors and changes in behavior that occur during the process are observed through measurement and evaluation. It provides the control of the system by giving feedback about the measurement and evaluation education system. According to Tan and Erdogan (2004), measurement and evaluation activities fulfill an important information and orientation function in revealing the deficiencies and inadequacies of an applied program, improving the education, and developing the program.

The education system and, accordingly, the measurement and evaluation system in Turkey is constantly changing. With the changing education system, what is expected from individuals; to use their skills in the most effective way and to maximize their potential. In order to realize themselves and lead a happy life, individuals increasingly want to receive higher education, and this desire is accepted as an indicator of the increasing demand for social education (Küçüker, 2017). Therefore, central exams in our country have always been important.

It is expected that the assessment to be made to recognize and place students, which directly affect their future lives, will correctly diagnose students in terms

¹ Mathematics Teacher, Ministry of Education, sulebusra54@hotmail.com

² Asst. Prof. Dr., Sakarya University, mtakunyaci@sakarya.edu.tr

These results are proof that the scale has construct validity. Internal consistency coefficients made within the scope of reliability studies showed that the scale could be used reliably.

CONCLUSIONS

In this study, a valid and reliable scale was developed that will allow mathematics teachers' awareness of nationally applied high-stake tests to be examined individually in terms of students and test questions.

As a result of the exploratory factor analysis, it was determined that the scale items were decomposed into three sub-dimensions (Awareness of Teacher Perceived Innovations, Awareness of Student Perceived Innovations, Awareness of the Quality of Questions). Afterward, the fit indices obtained as a result of the confirmatory factor analysis showed that the scale items met under these three sub-dimensions. Reliability coefficient values of the scale were obtained by Cronbach's α , McDonald's ω (omega), and Two-Half Test (r) methods. These reliability values calculated for the whole scale are respectively; .81, .80, .88.

The lowest score that can be obtained from the entire scale is 23, and the highest score is 115. The high score obtained from the scale means that the positive thoughts and awareness levels of mathematics teachers towards the LGS system are also high. Finally, it can be said that the *Mathematics Teachers Awareness Scale* for the LGS, which was developed according to the analyzes made and the results obtained, is a valid and reliable measurement tool. In addition, this developed scale can be used to determine teachers' awareness levels for other national high-stake tests.

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