MATHEMATICS AND SCIENCE TEST: THEIR PSYCHOMETRIC PROPERTIES AND NORMS FOR STUDENTS AT CAVITE STATE UNIVERSITY SCIENCE HIGH SCHOOL

THESIS

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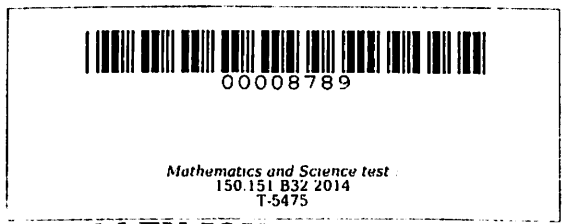
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ABSTRACT

BATILES, WILLEN JOY M. and OCAMPO, VILLALUZ, L., Mathematics and Science Tests: Their Psychometric Properties and Norms for Students at Cavite State University Science High School. Undergraduate Thesis. Bachelor of Science in Psychology. Cavite State University, Indang, Cavite. April 2014. Adviser: Dr. Cecilia B. Banaag.

This study examined the psychometric properties and norms of the admission test for high school students of Cavite State University, from batch 2010-2011 to batch 2012-2013, and the freshmen students of batch 2013-2014. The study determined the validity of the Mathematics and Science Tests in terms of concurrent and predictive validity. Likewise, test-retest was used to determine the reliability of the Mathematics and Science tests. The norms of the study were described with the use of percentile, stanine, and z-scores. All 155 graduates (from batch 2010-2011 to 2012-2013) and the 66 freshmen students (of the current school year) of the university's Science High School were the participants of the study.

Findings revealed that the Science and Mathematics tests employed in the entrance examination have concurrent validity. In terms of its predictive validity, only the Mathematics test has the capacity to determine the students' future performance on the Mathematics subject and final GPA on their fourth year level. Likewise, combining the scores obtained in the mathematics and science tests was found to be a predictor of the students final GPA on their fourth year level. Meanwhile, norms are described in terms of percentile, stanine and z-scores that may be utilized in interpreting the scores in the Mathematics and Science tests.

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INTRODUCTION

One of the important features of the educational system is the high school admission test (De Lisle, 2012). Applicants must be able to achieve the required scores in order to gain entry in the desired institution (Xime, 2012).The abilities, knowledge, and level of intelligence were identified and evaluated with the aid of these high school admission test (Caie, 2010).

In a study conducted at Caribbean, a question of validity has been raised from the assumption that the performance of students in the secondary school entrance examinations can be utilized in their appropriate placement in different types of institutions (De Lisle, 2012). Kane (2000), as cited in Brine (2009) has defined validation as the process of distinguishing the appropriateness of the proposed interpretations and uses, and to what extent the evidence gathered support or refutes the said proposed interpretations. However, the validity of a test is dependent on its reliability; the validity is limited by its reliability (Estever & Felomino, 2004). Salvia, Ysseldyke and Bolt (2007) as cited in Steve (2009) have stated that in an assessment