NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

SELECTION OF THE OPTIMUM MATERIAL FOR USE IN MAKING THE THROWING IMPLEMENT IN THE GAME OF MNQGWAYI

BY

VICTOR MBAYO

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Department of Sports Science and Coaching

Faculty of Applied Sciences

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Abstract

This study aimed at selecting an optimal material for use in the making of the throwing implement for the game of Mnqgwayi. Material candidates include for selection in this research were High Density Polyethylene, Magnesium Alloy, Aluminum, Fiberglass and Wood.

Material stick implements were measured of their dimensions to ascertain their standard category for this study and recording them. The tripple beam balance 700 series, metal helix metre rule and Micrometre screw gauge were used to take the quantifiable qualities of mass, length and diametre respectively. Dimensions were taken observing laboratory measurement procedures after undergoing a laboratory orientation with the NUST Physics Department. Department of Applied Physics

Ten participants , eight males and two females were drawn from the students with a background of throwing in field events.This sample was conveniently selected after researcher experienced financial and transport costs to visit the Masendu Ward to involve the presumed proficient throwers.The tests throwing session was conducted after a days rest from a two day training and orientation lessons by a demonstrator with exposure to the throwing techniques of the game. Subjects were given three alternating chances per pair to post distances with each material implement and having their projected distances measured by two field events officials for recording.

From the results of the test throws mean distances showed that HDP gave least distance, followed by aluminum, Magnesium Alloy, wood and fiberglass giving the highest mean distance.