ABSTRACT

Study of experimental ergonomics of students' physical workload in the use of Learning Management System (LMS) to evaluate physical workload in the online learning process using LMS in a healthy, comfortable, and productive manner. Thedata collection method was carried out through the Nordic Body Map (NBM) questionnaire to get an overview of musculoskeletal disorders (MSD) complaints that focused on evaluating the physical workload in students. The survey was distributed to all active ITTP class 2021 students as many as 1207 students, where using the slovin sampling technique which was 90% significant and 10% error wasat least 93 students. This questionnaire uses a Likert scale with a scale of 1 to 4 with the provisions TS (Not Sick), AS (Somewhat Sick), S (Sick), SS (Very Sick). Data collection based on gender, age and sitting position during online lectures. The results of data collection from the point of view of gender resulted in the NBMvalue of low and medium complaint levels at the waist of 8%, while from the point of view of age, at the age of 18 and 19 years complaints of pain in the upper neck, lower neck and waist were 7%. At the age of 20, the most complaints are found in the back and waist worth 8%. From a sitting point of view, it yields low and mediumNBM values of 7% and 8%. The normality of the resulting data was normally distributed in 93 respondents. The physical workload of 93 respondent data has many complaints, caused by ergonomic factors such as sitting position, long time and monotony, it is necessary to pay attention to the use of ergonomic equipment, adequate rest to avoid injury or the risk of complaints of musculoskeletal disorders.

Keywords: *Learning Management System, musculoskeletal disorders, NordicBody Map, slovin sampling technique, Likert scale.*