

ABSTRACT

Complaints of laptop users when using it because they feel pain in some parts of the body. Redesign the portable laptop desk with additional features based on ergonomic aspects to fit the needs and priorities of laptop users. The method used in this study is a mixed method to achieve research objectives. Excavation of observational data through survey research of the phenomenon with the underlying literature problems related to the position / posture when using a laptop and complaints on the body when using a laptop with Nordic Body Map (NBM) method so as to find information relevant to the problem under study for the design of portable laptop desk. Then the data is collected to be processed through the quality Function Deployment (QFD) design method to plan and develop products in a structured manner and allow defining clearly the needs, expectations of customers and evaluating the ability of products or services systematically to meet user needs. The design of the laptop table should be appropriate using the user's anthropometric data for the height of the sitting eye, the height of the sitting elbow, the length from the elbow to the finger and the girth of the sitting thigh. Based on the results of the study, the majority of laptop users have a habit of using a laptop with a sitting posture with elongated legs, there is a backrest and sometimes crossed legs, and complain of pain around the neck, shoulders, back, and wrists when using a laptop. From these results, the recommended features for the author to continue as design materials are Peltier Thermo-Electric Cooler (TEC) cooling system innovation for laptops, foldable table legs, adjustable laptop table surface and height of the laptop table from the table legs can be adjusted to minimize pain or musculoskeletal complaints neck, back, shoulders and wrists as supporting aspects of ergonomics.

Keywords: laptop table, portable, ergonomics