

ABSTRACT

The intertwining of the cross-discipline studies forms the influence for novel oeuvre in the study of anthropology, ethnography, sociology, history and literary studies that are often conducted in fragments. With reference to the subject of floor-sitting, and tapered into the Malaysian practice, this phenomenon was investigated within the verge of furniture design that is integrated within the ergonomics signification. This thesis presents the study of floor-sitting behaviour within the ergonomics' science context for the development of floor-sitting furniture designs. This study was conducted by observing floor-sitting behaviours using the video surveillance method, synchronizing the time and event sampling method within the perimeters of the home environment. The floor-sitting furniture prototype was used as the auxiliary tool to manifest the dwellers' postural dynamics. Data collection was gathered over a 6-month period in order to identify the frequency of various floor-sitting postures, based on the synthesis of the ergonomics science elements signification. These include: physics, psychology, anatomy, physiology, and engineering, which are mellifluously engaged and articulated within the ergonomics' ergosystems. The prototype of the floor-sitting furniture contemporaneously exhibits the significant context of objects used as perching mechanisms; where through this engagement to floor-sitting posture expressions, the dwellers form another dimension to the extensive sitting comfort definition. This study has successfully produced a detailed illustration of the different floor-sitting postures that are idyllically practiced by Malaysians at home. The majority of houses used in this study were fully furnished. However, it was identified that the majority of Malaysians observed in this study typically preferred sitting on the floor with their bodies perched against objects used for resting. A compilation of floor-sitting data was obtained, and the designed prototype demonstrates the capability of

the culturally linked subject's extension within the explication of the ergonomics, and creative design contexts.

Keywords: cross discipline studies, floor-sitting behaviour, ergonomics, ergosystems, ergonomics science elements, furniture design.

ABSTRAK

Hubung jalin daripada pengajian rentas-bidang memberi pengaruh terhadap penghasilan karya baru dalam bidang antropologi, etnografi, sosiologi, sejarah dan kesusteraan, yang lazimnya dijalankan secara fragmen. Dengan merujuk subjek yang duduk di lantai, yang menjadi amalan orang Malaysia, maka fenomena ini dikaji dari sudut reka bentuk perabot yang disepadukan mengikut kesignifikan ergonomik. Tesis ini memaparkan kajian tingkah laku duduk di lantai dalam konteks sains ergonomik untuk pembangunan reka bentuk perabot duduk di lantai. Kajian ini mengamati tingkah laku duduk di lantai dengan menggunakan kaedah pengawasan video, penyegerakan kaedah pensampelan masa dan peristiwa dalam perimeter persekitaran rumah. Prototaip perabot duduk di lantai digunakan sebagai alat sokongan untuk melihat kedinamikan postur badan pengguna perabot tersebut. Data dikumpul dalam tempoh 6 bulan untuk mengenal pasti kekerapan pelbagai postur duduk di lantai, berdasarkan sintesis kesignifikanan elemen sains ergonomik. Elemen tersebut termasuk: fizik, psikologi, anatomi, fisiologi dan kejuruteraan yang disepadukan secara harmoni dalam ergosistem ergonomik. Prototaip perabot duduk di lantai juga mempamerkan kesignifikanan konteks objek yang digunakan sebagai mekanisme untuk merehatkan badan. Justeru, pengguna membentuk suatu dimensi lain bagi definisi keselesaan duduk yang luas melalui hubungan dengan ekspresi postur duduk di lantai. Kajian ini berjaya menghasilkan suatu ilustrasi yang terperinci tentang perbezaan postur duduk di lantai, yang biasanya diamalkan di rumah oleh orang Malaysia. Majoriti rumah yang terlibat dalam kajian ini mempunyai perabot yang lengkap. Walau bagaimanapun, berdasarkan pengamatan kajian ini, majoriti orang Malaysia cenderung duduk di lantai bersandarkan objek yang diguna untuk beristirahat. Satu kompilasi data duduk di lantai diperoleh dan rekaan prototaip

menunjukkan kemampuan subjek yang dikaitkan dengan budaya dikembangkan dalam ruang lingkup penjelasan ergonomik, dan konteks reka bentuk yang kreatif.

Kata kunci: *Pengajian rentas-bidang, tingkah laku duduk di lantai, ergonomik, ergosistem, elemen sains ergonomik, reka bentuk perabot.*