

IMPORTANCE OF ERGONOMICS IN ACADEMIC LIBRARIES

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Abstract: - *This research paper dealt with importance of ergonomics in academic libraries. it is important to make library services more comfortable. Due to ergonomics the quality and efficiency of library services increased and it is helpful to make it more user friendly. The goal of ergonomics is to fit the task to the individual, not the individual to the task. Application of ergonomics can help to increase health and well being of library personnel. Effective ergonomic product and practices can increase productivity by reducing the time taken to complete daily task.*

Introduction:

In highly competitive academic environment, the library is an essential component of an institutions intellectual expression. Libraries must design there space in such a way to support learning, study and research. Ergonomics is an important aspect of design and development of libraries. Ergonomics is a scientific discipline concerned with improving productivity, health, safety and comfort, and helping people and technology work together.

Today, academic libraries are moving with the latest technology. More and more works are done with the aids of machines that apparently speed up work but, sometime can make, work less motivating and boring. The library tasks such as cataloging and indexing and circulation services are done with the help of computers because of the machines acclaimed reputation for efficiency and high productivity. On other hand there is a most important and extremely vital element, and evidently the most unpredictable in a workplace system the human, the specie that has ability to

make and use tool of technology such as computers that need a human intervention to completely attain their full potential when used in libraries.

A library is an organized collection of information resources made accessible to a user's for reference or lending. It provides physical or digital access to material and may be a physical building or room, or a virtual space or both. A library collection can include books, periodicals, newspapers, manuscripts, films, maps, prints, documents, microform, CDs, cassettes, videotapes, DVDs, e-books, Audio books database and other formats. Libraries range in size from few shelves of books to several items. Library is a place in which literary and artistic materials, such as books, periodicals newspapers, pamphlets, prints, records and tapes are kept for reading, reference, or lending.

Hence the library can be generally described as an essential part of an institution which facilitated learning study and research. It serve an academic environment, therefore the comfort of users of the library is paramount as this would ensure optimum output of its users such as increasing academic performances of students, encouraging effective study and research, therefore it is necessary for every institution to consider ergonomics while designing its Library as this would affect its overall productivity.

1. Ergonomics as a Concept:

The term ergonomics was coined from the Greek words ergon (meaning "Work") And Nomos (means "Rule"). So the Literal meaning is "the rule of work" Ergonomics is the Science of fitting the work-place condition and job demands to the capabilities of the working population. The goal of ergonomics is to make the work place more comfortable to improve both health and productivity. To meet these goals, the capabilities and limitations of workers and their tools, equipment and furniture are considered in conjunction with how they relate to particular tasks.

Most of people have heard of ergonomics and think it is something to do with seating or with the design of car controls and instruments. But it is much more; Ergonomics is the application of scientific information concerning humans to design of objects, system and environment for human use. Ergonomics comes into everything which involves people work systems, sports and leisure, health and safety should all embody ergonomics principles if well designed.

Definitions:

The international Ergonomics Association defines, "ergonomics as a scientific discipline concern with the understanding of interactions among humans and other elements of system, and the profession that applies theory, principles, data

and methods to design in order to optimize human well-being and overall system performance”.

Moray (1995), mentioned, “the task of ergonomics is to design a lifestyle support system that elicits the behavior required to reduce the severity of the global problems, taking into account cultural and environmental features”.

According to Helander (1997), “ergonomics use knowledge of human abilities and limitations to the design of systems, organizations, jobs, machines, tools, and consumer product for safe, efficient, and comfortable use”.

2. History of Ergonomics:

The interest in the relationship between people and their working environment began during the First World War. The Health of Munitions Workers Committee was formed in 1915, containing individuals trained in the areas of physiology and psychology, who analyzed men and women in their workplace with the objective of increasing munitions output. This committee was reconstituted at the end of the war as the Industrial Fatigue Research Board, addressing problems of fatigue in industry. In 1929 the Board became the Industrial Health Research Board, containing psychologists, physiologists, physicians and engineers studying working practices and working environments. Areas covered in detail were posture, the physique of working men and women, rest pauses, inspection, lighting, heating, ventilation and training.

During the time of the Second World War, equipment was being manufactured to higher specifications with greater complexity and at higher operating speeds than ever before. It was, therefore, essential that an understanding of a worker’s performance, capabilities and limitations be investigated. Important in this field were the Medical Research Council and the Department of Scientific and Industrial Research.

In 1949 the Ergonomics Research Society (now the Ergonomics Society) was formed. Interest grew in the field, papers were published and conferences held. The journal Ergonomics first appeared in 1957. In 1959 the International Ergonomics Association was formed, linking ergonomics societies from around the globe.

During the period 1960-1980 there was great interest in manufacturing processes, consumer products and computers. The American interest in the field which they called human factors engineering also focused on space flight and military equipment, an interest which is still prevalent.

During the 1980s, interest focused on computers, office environments and nuclear energy. Since 1949 the study of ergonomics has grown considerably and there is now a large pool of information on the subject, although relatively little has been written in the field of library management.

3. Categories of ergonomics:

There are three broad areas of ergonomics these are-

- **Physical ergonomics:**

It is concerned with human anatomical, and some of the anthropometric, physiological and bio mechanical characteristics as they relate to physical activity such as working posture, manual handling, repetitive movements, musculoskeletal disorders, workplace layout and environment.

- **Cognitive ergonomics:**

It is concerned with mental processes, such as perception, memory, reasoning, and motor response, as they affect interaction among humans and other elements of a system.(relevant topics include mental work load, decision making, skill performance, human-computer interaction, human reliability, work stress, and training as these may relate to human-system and human-computer interaction design.)

- **Organizational ergonomics:**

It is concerned with the optimization of socio technical systems, including their organizational structure, policies, and processes.(relevant topics include communication, crew resource management, work design, designing of working times, teamwork, participatory design, community ergonomics,

cooperative work, new work programs, virtual organizations, telework, and quality management.)

4. The Importance and Benefits of ergonomics:

Ergonomics is the study of efficiency in workplace. Basically it is the study of what you can do to help your staff members stay healthy and perform better. Besides keeping your employee safe, Library ergonomics comes with plenty of other benefits such as...

- **Reduces Costs** – By investing in Library ergonomic strategies, we reduce ergonomic risk factors like MSDs. MSDs are musculoskeletal disorders that occur due to repetitive movement or poor posture. If we provide ergonomics in the library, these risk factors drastically decrease about one-third of employees compensation are paid to the cases of MSD. Reduce these costs by investing ergonomic furniture in the library.
- **Improve Productivity** – Library ergonomics boost productivity by designing a workplace that promotes good posture, less repetitive motions, easier heights and reaches, and less exertion nurtures a more efficient work process. That means more efficiency equals more productivity.
- **Improve Work Quality** – Poor library ergonomics leads to tired and easily irritated employees that cannot do their

best work. When a job task is too physically taxing on the employee, they may not perform their job work like they were trained. The best way to keep your employees in top form is to invest in library ergonomics. Proper library ergonomics will help to keep everyone in top working form.

- **Improvement in employee Engagement-**

It is often said that a happy staff is a productive staff and this often entails strong relationships among the various members of a working team. When a library puts forth efforts to ensure health and safety, they notice and it often boosts their morale. In addition, high energy levels on the job help to decrease absenteeism and improve their involvement.

- **Create a better safety Culture-**

ergonomics shows our libraries commitment to the safety and health as a core value. The cumulative effect of the previous benefits of the ergonomics is a stronger safety culture for our library organization. Healthy employees are most valuable asset; creating and fostering the safety and health culture at workplace will lead to better human performance for our organization.

5. Conclusion:

Ergonomics is a vast subject, covering many aspects of people and their working

environment. The librarian needs to give great attention to provide ergonomically designed library furniture for both users and staff. Library Management introducing and implementing ergonomic measures that would involve the set up of Adequate and healthy workstation equipment that would allow the users to adopt optimal working posture suitable for a greater job satisfaction of the library and expected higher job performance and organizational success.

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