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Human Factors

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Human Factors

Human factors are personal and social skills such as decision making and communication that affect how people operate their businesses. It analyzes the interrelationship between human beings, tools, and systems they use in their workplace. In aviation, human factors are important because they guarantee safety and efficiency (SKYbrary, 2016). Human factors also aim to minimize human error by addressing how people behave, sense information, and make decisions. Human factors began in 1898, whereby mechanical engineer Frederick Taylor modified a way for employees to complete their work at Bethlehem Steel. He provided customized tools that increased the daily output of the company. The paper seeks to discuss human factors, their applications, foundation, the historical value in the last 100 years, need for human factors research, meaning, and purpose.

Human factors are applied in healthcare to prevent adverse events from occurring, such as negligence or wrong diagnosis. Human factors can help healthcare facilities design procedures that make it easier for health care workers to perform their duties (World Health Organization, 2015). The application of human factors in healthcare is also relevant to patient safety because it educates medical practitioners on administering safe prescriptions, diagnosis, and better communication between team members and other health care workers. While eradicating human error in health care is a challenging task, limiting and moderating the risks through human factors is essential because it displays issues such as fatigue and how to deal with it.

Second, human factors are applied in aviation. Traveling by air is the safest method to travel, and the hardware and software created for aircraft have reduced aviation accidents. However, aviation accidents do occur due to human error caused by a lack of human factors. These errors are caused by the flight crew, pilot, and air traffic controllers through personal,

organizational, and environmental influences (Muñoz-Marrón, 2018). Human factors in aviation are used to improve communication, reduce personal influences such as oversight through procedural and maintenance error training.

Over the years, human factors have evolved since it was founded, and they originated from military needs where humans were being trained to fit machines instead of vice versa. The research was conducted throughout World War 1 to the cold war period through trial and error phases (Meister, 2018). As technology advanced human factors developed as it focused on people's interactions with machines by developing computer software, hardware, and the internet.

Human factors research helps address developing issues that may arise by allowing specialists to gain the basic knowledge and understanding of new designs and people behaviors. Industrial accidents keep occurring even after safety precautions have been observed. Human factors research needs to continue to create effective solutions that can minimize workplace accidents and errors (Deutsch et al., 2016). For instance, in aviation, new aircraft models are designed regularly to meet air space requirements. Human factors research will consider a new form of training that will benefit the entire flight crew through safety intervention methods. Human factors research aims to help improve human-computer interaction as it is effective for the use of computers due to technological advancement.

In summary, having discussed human factors, their applications, foundation, the historical value in the last 100 years, need for human factors research, meaning, and purpose, human factors are important in every organization. The constant improvement of human factors creates an efficient and safe environment in the workplace by maximizing every employee's performance.

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