

Research and Cause Investigation of Human Error in Profession and How to Eliminate Human Error

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Abstract: Error in the critical operation is a field of research. The Author is finding out factors related to human error and how to mitigate the same. This journal is going to help the productivity of human in the work places as it is going to explain causes of human errors and how same should be eliminated.

Keywords: Human error in work, fatigue, lack of interest, alcohol abuse, drug abuse, poor knowledge of subject, lack of skill, over confidence, impulsiveness (haste), negligence, lack of concentration.

1. Introduction

- Fatigue is human body is a source for reduction of efficiency. Fatigue can be due to over tiredness, loss of sleep, engagement of heavy physical work or long hours of engagement in intellectual work etc. Fatigue failure could be the reason of human error as fatigue can create slow thinking. Symptom of fatigue in body can be a person's inability to stand, inability to respond in prompt manner, alteration from healthy mood, dizziness, pain in head, pain in body, poor decision making etc.
- Lack of interest is another serious constraint in the job performance. Lack of interest will cause less attention in the work as it is a mental state of human psychology. Lack of interest could be due to no challenges in the work, due to feeling of rust out, due to feeling of burn out, due to unfriendly work atmosphere, due to competency mismatch, due to high ambition, due to different orientation, due to repetition of tasks.
- Alcohol addiction is a common problem in the human error as blood alcohol concentration can cause hallucinogen, loss of rational thinking, alteration in mood, dizziness, drowsiness, temporary change in temperament etc. Alcohol addiction is a source for poor performance. Alcohol can cause blackout of thinking power. Alcohol can affect the nervous neuron cells and can bring depression etc.
- Use of Narcotic drugs can cause serious damage to

human body and definitely the error in work performances. Opium, brown sugar or other narcotic drugs can create hallucinogen in human body, false well feeling. Narcotic drugs effect can cause

- Permanent damage to kidney, heart, liver etc. Narcotic drugs are the harmful chemicals which can harm to body and can cause permanent damage to human organs.
- Human error can be due to poor knowledge of subject matter. Hundreds of examples can be given where poor subject knowledge was the main cause of error. For example if a Nautical officer has not studied international convention for collision avoidance rules, regulations then how he is going to take avoiding action in the situation,
- Human error in the work execution could be due to lack of practical skill. Many time job requires physical work also in skilled work it is important to know the entire work.
- Over confidence is another source for the human error. Confidence is a essential behavior of human response but if someone gets over confidence then some time it could lead to problems. Over confidence can lead to inaccurate results as outcome and sometime error in critical operation.
- Haste in work is a major source of human error in work. When a person proceeds to complete the work in haste it is very natural that he can forget the steps or skip the important steps. On road safety slogan reminds about dangers of haste, late is better than never,
- Negligence is another source of human error. Any negligent behavior can lead to accident.
- Sabotage attitude is another source of human error. It could be a deliberate act of omission.
- Human error due to assumptions in the work. Incomplete information's, wrong information's could be the cause for false assumption.

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- Lack of concentration also can cause for human error. Lack of concentration could be due to attention deficit hyperactive disease, epilepsy or due to health issues.
- Healthy circadian rhythm is very important, loss of sleep, lack of deep sleep can afflict loss of memory during the fatigue duration.
- Uncertainty about correct work procedure or correct action can cause human error.
- Lack of communication or misunderstanding to communication also can cause human error.

2. Solution to Overcome the Human Error

Fatigue can be avoided by balance in work and rest hours. Many times proper team work can reduce the work load on the single individual. Machine assistance also reduces load on human like going physically in 10th floor of organization requires some energy but using lift and reaching to tenth floor is easier.

- Solution lack of interest could be removed by the motivation.
- To get rid of alcohol abuse an addict person should seek the medical help. Addict person should decide firmly that he is leaving the alcohol addiction at the earliest.
- To get rid of drug abuse any drug addict should take the help of medical officer and must firmly decide to leave the addiction and to devote to work.
- A good subject knowledge is essential for good performance, good training, reading of manuals, vocational training, attending to seminars are the tools for improvement of knowledge.
- A practical training is important step for learning the skill. Training should be exactly giving the same practical knowledge as is required in the task. A good simulator based training is also a technique for professionals.
- Appropriate confidence is very important in the work but over confidence should be removed.
- It is very important to give due regard to work with care. No work should be performed in hurry. Many work requires risk assessment.

3. Effects of Human Error

In various industries have been sighted. In shipping many

accidents in navigation happened due to fatigue failure (1.Arslan and I. D. Er., September 2007, *Transnav: Effect of fatigue on navigating officers*). Fatigue in human body caused accidents in the engine room, falling asleep in the critical duties etc.

- The effect of lack of interest can be sighted in human behavior as some employees all together change their profession. It causes job dissatisfaction and less output.
- Road accidents have been reported several times in newspapers, televisions due to drunk driving. As per standard of training certification and watch-keeping treaty: Watch-keeper must have nil or blood alcohol quantity less than .05% BAC (IMO: STCW 2010 treaty).
- The effect of narcotic drugs have been found in the human body, Kidney, liver, body organ failure is also possible in the acute medico-ailment cases.
- Sometime drug peddler takes drug from infected syringe and finally succumb to deadly infection of HIV etc.
- Misunderstanding about safety requirements in the work has resulted many industrial accidents like welding and cutting job without fire safety finally led to outbreak of major fire in few accidents.
- The effect of negligence in work led to many accidents in various industries and also in ships. In *Costa Concordia* grounding case officers were found negligent in duties.

4. Conclusion

Good cognitive skill is required to avoid the human error in the work. Yoga and good health is a key to keep body stress free. Good training is required engaging the person in independent tasks. Critical operation required risk assessment, tool box team meetings also.

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