

The three e's of safety essay sample

[Law](#), [Security](#)



The old concepts of the three E's are engineering, education and enforcement. The old concept may be considered a top-down model of safety. In this concept, safety is designed into the system and the users will be the ones to cope. This contrasts with the new concept which is considered a bottom-top approach to safety. Instead of starting with the goal of safety, it starts with the people who are part of the process and whom we are trying to protect. Methods are then put in place to build a safety paradigm upon the needs and behavior of these front line employees.

Engineering refers to design and process improvement. Equipment and methods are evaluated and examined for possible safety pitfalls. These pitfalls are then addressed by modifying the design of equipment or making changes to the manufacturing process. One possible example is the addition of emergency stop buttons to critical equipment or the installation of automatic fire control systems.

On the other hand, the new concept equivalent for Engineering is ergonomics. Instead of examining the machinery and the process, we start by examining how employees use machinery and how employees go about performing these processes. We look for pitfalls by not looking for how the machine can cause damage to people but how people can hurt themselves using machines. For example, we may discover that the way a particular machine is being used leads to high rates of carpal tunnel. As a response, design changes could be made that would make using the machine a more pleasant and safe experience.

In the old concept, the second E is for education. This entails heavy focus on training employees on the importance of safety as well as the necessary safety procedures and practices to follow in order to prevent accidents. Traditionally, this is performed through mandatory regular classes and training regiments. The most common setup is a safety expert will come to the plant or job site and give a lecture to the troops regarding safety.

In the new concept, the counterpart of education is empowerment. In empowerment, employees are treated as critical part of safety programs. Instead of creating programs which imply a mentor – apprentice relationship, programs are created wherein the employees themselves are an active part of the safety team. In a way, the entire company becomes the safety team. This may be done by holding brainstorming sessions instead of lectures. In these sessions, employees may volunteer ideas about possible safety improvements. They may also use these sessions to voice out their opinions about implemented safety protocols.

The last component of the old concept for the three Es is enforcement. From the word itself, this involves active monitoring of the factory floor to ensure that safety protocols and policies are being adhered to. A real world implementation would be having a safety officer who has the power to reprimand employees who ran afoul of the safety policies.

The counterpart of enforcement in the new concept is evaluation. Together with empowerment, employees are considered to be the people to do the enforcement of safety standards. Employees will be the one to report potential safety issues, which policies are not working and which policies are

incompatible with the manufacturing objectives of the plant. This may be encouraged by having an incentive for employees who take an active part in monitoring the safety conditions of the plant. There may be a safety employee of the month for example. This small steps will go a long way in ensuring and developing a vigilant and all-encompassing safety culture in factories and job sites.