

ORDINARY PEOPLE & EFFECTIVE OPERATION OF FIRE EXTINGUISHERS



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SUMMARY

Between 2010 and 2012, Eastern Kentucky University and Worcester Polytechnic Institute conducted a joint study on the effectiveness of ordinary people using portable fire extinguishers, and the impact of a minimal amount of training. The study concluded that “the ordinary person is able to use a fire extinguisher without hurting themselves or others” and that “participants are able to use a fire extinguisher with great effectiveness.”

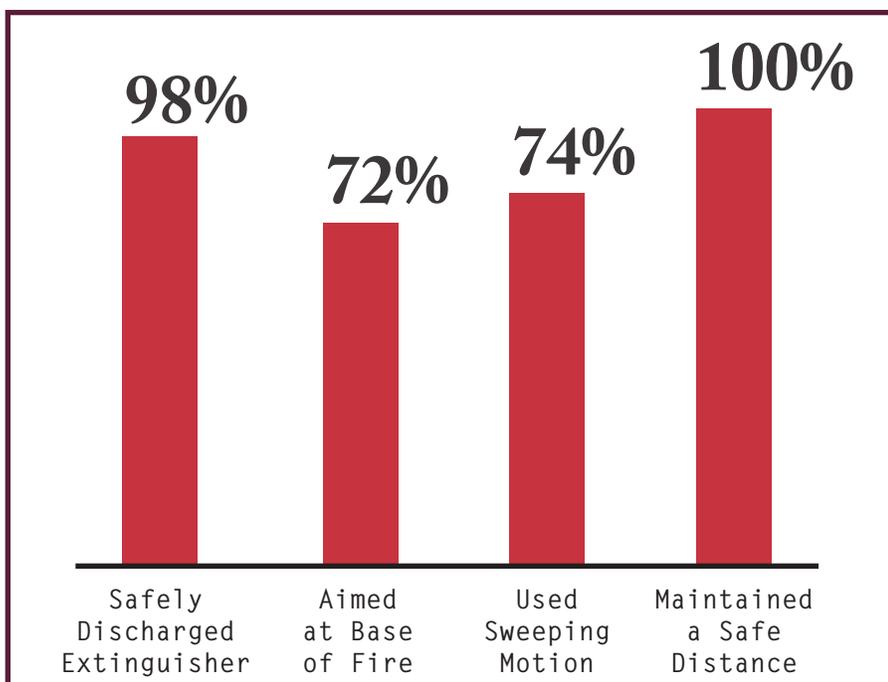
METHOD

The 276 participants were presented with an extinguisher and asked to extinguish a controlled propane fire using the BullEx Intelligent Training System simulating a Class A fire.



RESULTS

Without any training nearly all participants, 98%, were able to successfully use an extinguisher by pulling the pin, squeezing the trigger, and discharging the extinguisher. Almost three-quarters (74%) used proper technique of aiming at the base of the fire and used a back and forth motion until the fire was extinguished. On average, users discharged the extinguishers in 13.4 seconds. After just a few minutes of training, 100% of the participants pulled the pin, squeezed the trigger, and discharged the extinguisher, with 96% aiming at the base of the fire and sweeping back and forth. The study also recorded if testers would place themselves in danger by turning their backs on the fire. Only 4% of testers turned their backs on the fire before training and only 2% after training.



CONCLUSION

We believe this is the first academic study of an individual's ability to use a fire extinguisher. There have been previous studies on the use of extinguishers in industrial settings by seniors, but no other studies were found by the researchers on the untrained individual's ability to use a fire extinguisher.