

Improving Openability

Measuring Human Ability

Inclusive Design

Understanding Pack Function

Openable Packaging

Using Inclusive Design techniques to Improve the Openability of Packaging

Alaster Yoxall, Joseph Langley, Rob Janson & Jennifer Wearn

University of Sheffield

The Investigation

The Engineered Packaging Research Group based in the Department of Mechanical Engineering at the University of Sheffield recently developed a novel approach to the design and development of consumer packaging. Termed the 'three stranded approach' the work centred on measuring and understanding pack function using experimental and numerical methods, understanding human factors with novel measuring devices and matching the two together using analytical equations. Hence the factors that may lead to improving openability can be assessed and the knowledge passed onto packaging designers and engineers. The measuring device developed for understanding jar opening strength is shown below.



Based on a real wide mouth cap and jar, the system allows the measurement of people of all ages in a realistic jar opening situation.

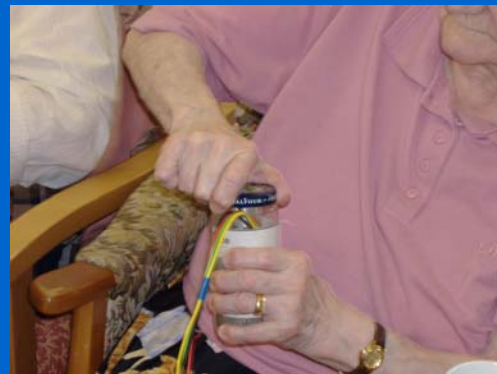
However, currently data gathering and manipulation is slow. In order to gather sufficient meaningful data better software needs to be written and specialist data handling equipment built. The SPARC award provides funds to enable the team to achieve these goals.



Potential Benefits



Inability to access packaging is a major concern for many elderly people. The benefits of easily openable packaging that continues to protect and preserve the contents are obvious. By matching pack function to human ability both manufacturers and consumers benefit.



Contact Details

Principal Investigator

Dr Alaster Yoxall

a.yoxall@sheffield.ac.uk

Department of Mechanical Engineering

University of Sheffield

Mappin Street

Sheffield S1 3JD



Researcher

Jennifer Wearn

j.wearn@sheffield.ac.uk

+44 (0) 114 2227873