

**Abstract:**

This dissertation examines the influence the behaviour of the occupants has on domestic energy consumption. This is done by analysing data obtained using a combination of methods such as ethnography, wireless electricity monitors, and previous fuel bills from a judgemental sample of six domestic dwellings. The research proposes and demonstrates a new method of understanding everyday domestic energy consumption. The research, which is Ethnographic in nature, advances a new approach to studying elements of everyday domestic life through a prism of “participant observation”, where the research takes part in whatever activity is happening within the dwelling. This research identifies a unique insight into behaviours and patterns associated with the different occupants. The study focuses on three parameters: electricity, water, and heating consumption.

Domestic energy consumption is affected in particular by family size, age and sex of occupants. Electricity consumption when sub-divided is strongly influenced by household composition. Occupants with young children consume more on appliances than their older counterparts, particularly the washing machine which has the greatest influence over this parameter. Similarly water consumption is also influenced by occupancy age and sex. Older occupants wash less frequently than younger people, hence they consume less water. Also women wash for longer periods of time than their male counterparts. In contrast to electricity and water consumption, primary heating consumption is found to be more dependent on the dwelling rather than the occupant, whereas the secondary heating system which is predominantly solid fuel is strongly influenced by occupancy age, where the older occupants consume more energy than their younger counterparts. Older occupants have solid fuel systems lighting for longer periods of the day, particularly the open fire which has the greatest influence over this parameter.

The research discusses the importance of relating feedback to the occupants of the dwellings studied, which is a useful reflective tool to analyse behaviour and patterns. This method informs the occupants through feedback which in turn alters their energy consumption after the fact. Proposals are also put in place to improve the procedure (framework) for possible future research in the area.