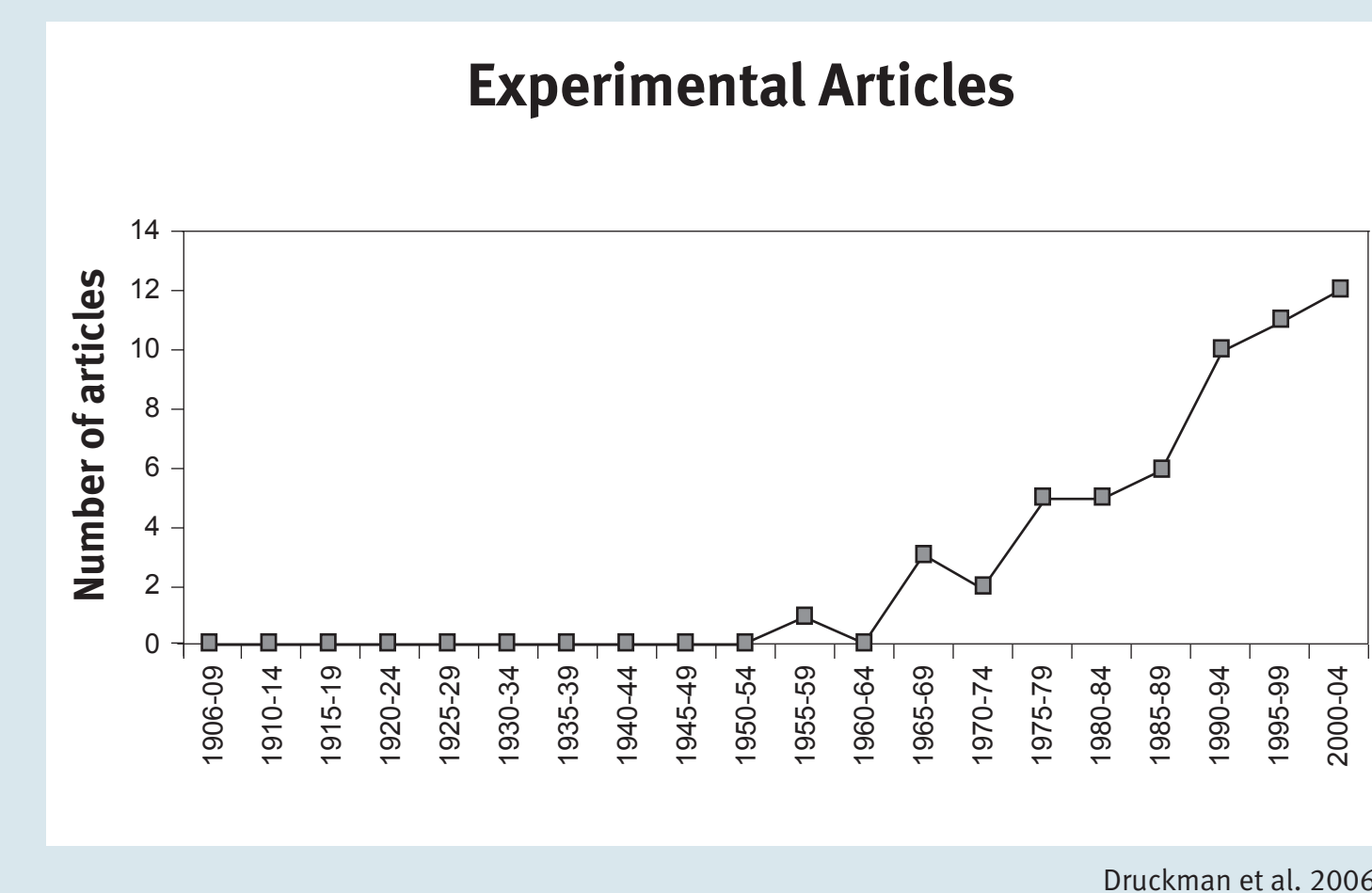


Micro level analysis of sustainability and the question of causality

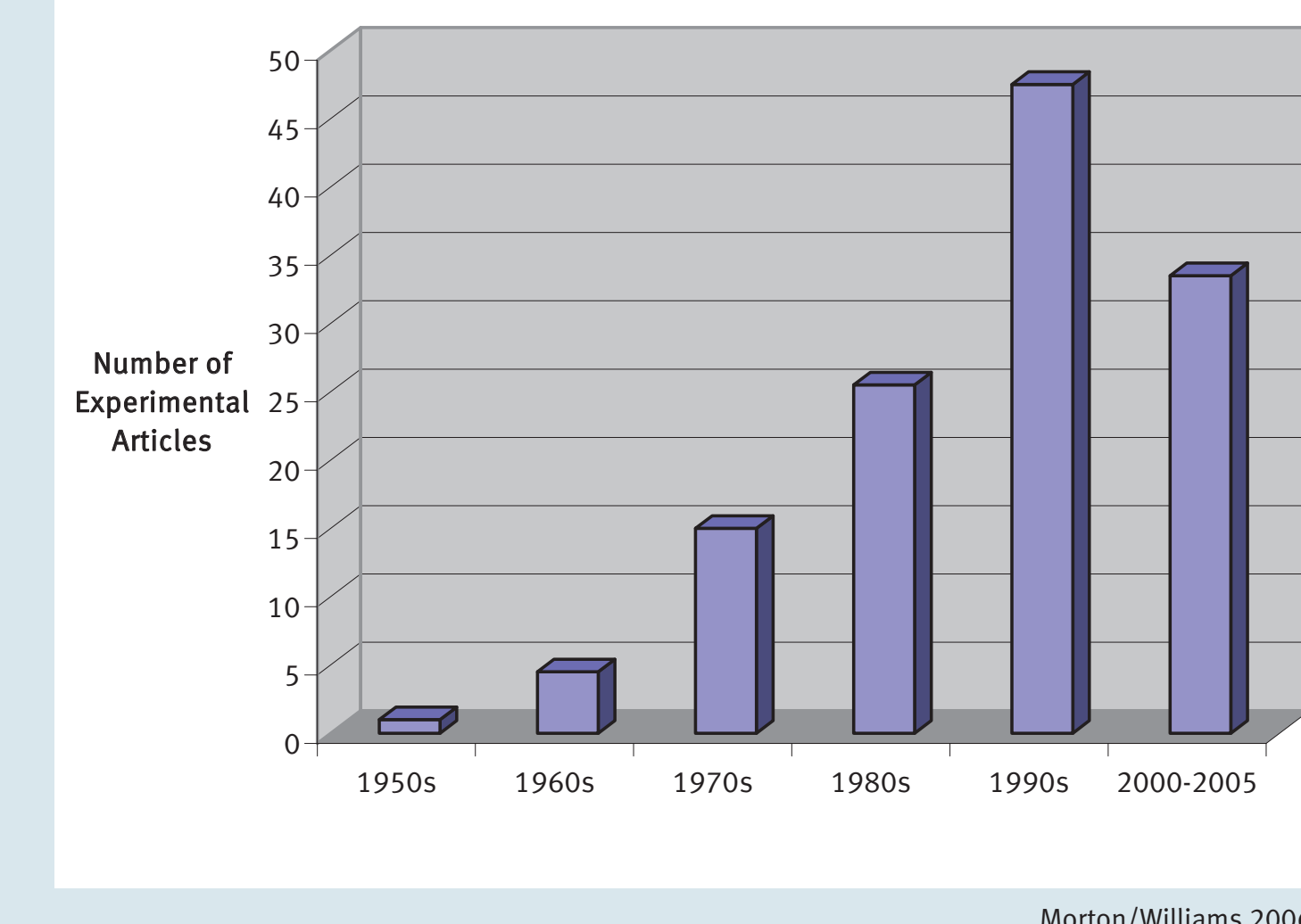
Background Information:

Experiments have increasingly gained importance in political science research. The number of journal articles has risen steadily – as can be seen in the following charts



Druckman et al. 2006

Figure 1: Experimental Articles Published in APSR, AJPS & JOP 1950-2005



Morton/Williams 2006

Which are the advantages of experiments?

- causal relations can be examined
- social desirability response bias can be minimized
- on a methodological basis, experiments have (until now) only rarely been used and thus offer innovative potential in the future
- And there is a lot more ...

Purpose of the poster:

- To highlight areas of application for experiments in environmental policy
- To show how – by using this method – individual decisions in the field of environmental policy can be identified

This example shows the role and the experimental analysis of individual decision-making on the level consumption

For further questions, please contact:
ulrich.hamenstaedt@wwu.de

Energy savings experiment

Problem statement: The consumption of electricity of households has risen steadily. At the same time, we do not know much about this increase of electricity consumption of private households.

In order to make regulative decisions in this field, it is vital to gain a broad knowledge base.

Research question: Which issues does political regulation have to address to be effective?

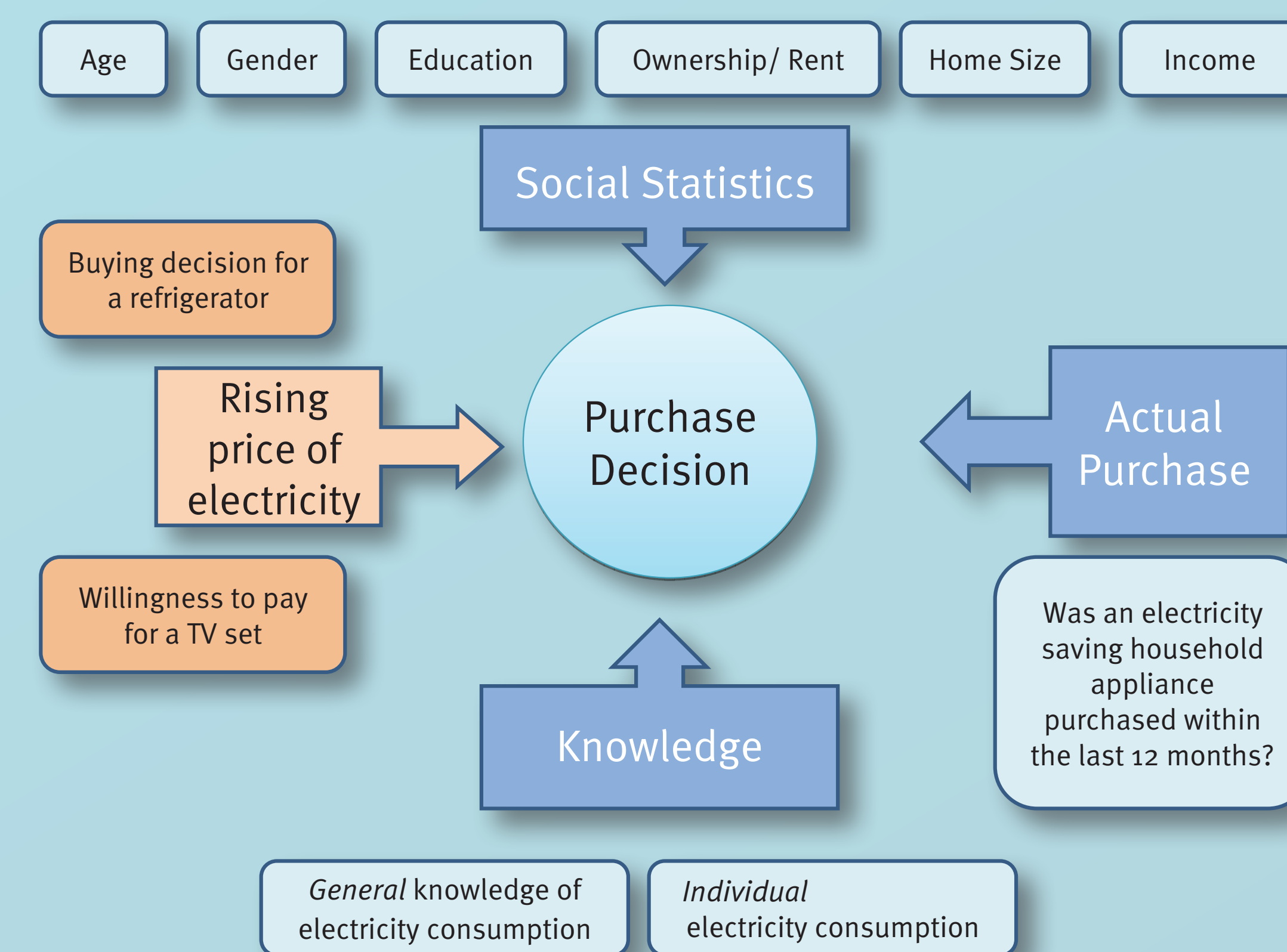
- electricity tariffs?
- the price of energy-saving household appliances?

Research method:

An experimental research design is applied in order to avoid social desirability response bias.

- Financial incentives were integrated in the research design in order to imitate a real-life decision making process

Set-up of the experiment:

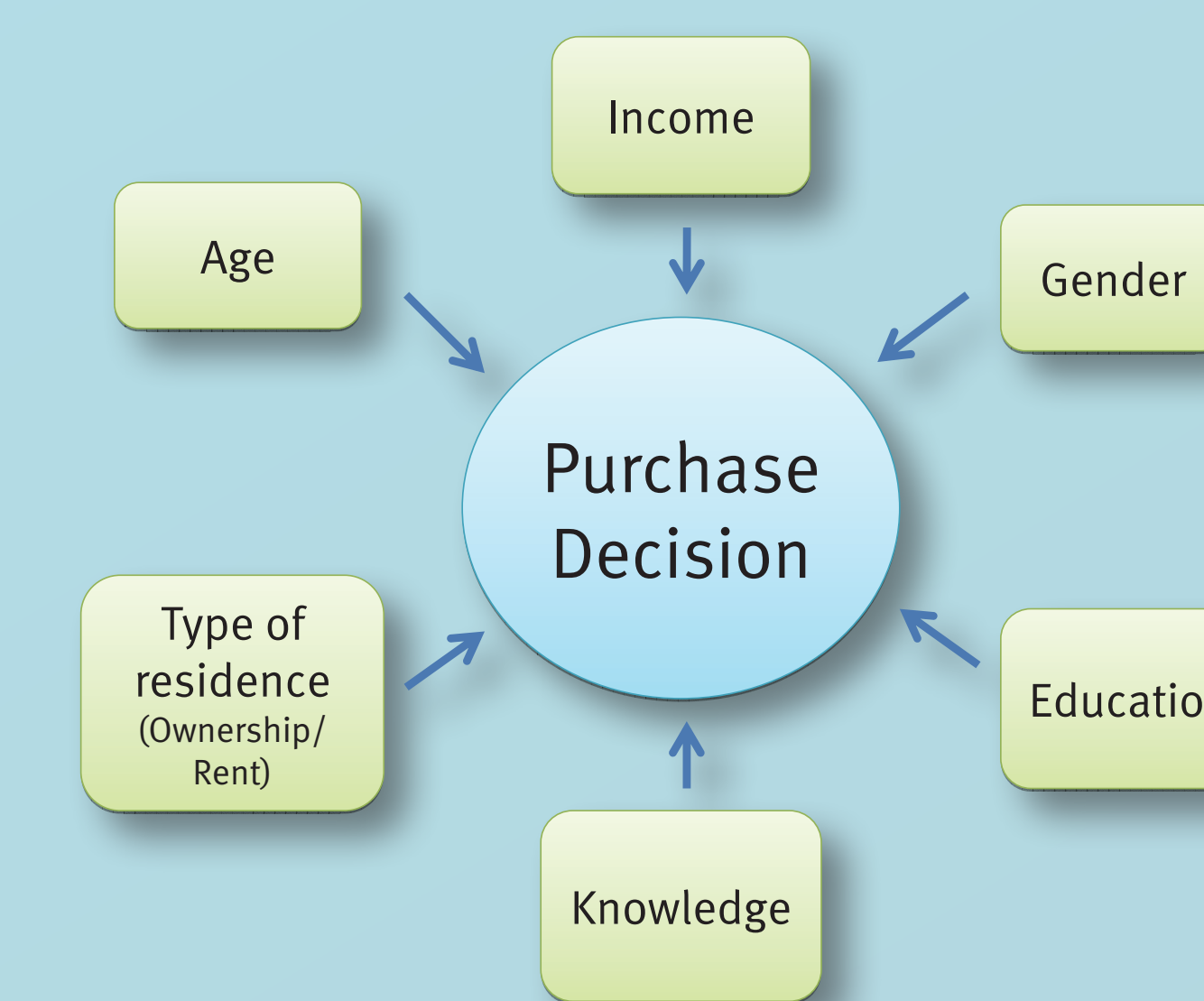


Number of participants

	Muenster	Magdeburg	Essen	Total (Treated)	Control group
Number of test persons in the experiment	194	102	125	421	183

Main findings of the experiment

1. What are the important factors in the purchase decision?



2. Price elasticity

One of the main goals of the experiment was to find out more about the price sensitivity of private households for electricity tariffs. An important (economic) concept is the so-called price elasticity. This concept measures the interrelation between the price and the sold units. In this experiment the price elasticity for electricity was relatively low (between 0.24 and 0.42), but compared to other research findings, this is not an unexceptional finding.

Picture of the stand & screenshot of the experiment



Political Implications from the Experiment

- Rising electricity tariffs have only a marginal impact on the purchase behaviour of consumers
- Probandes were willing to pay much more for an energy-saving refrigerator than for an energy-saving television set
- Comprehensible information given on the consumption of electricity increases the willingness to pay for energy-saving appliances