

# ESOMAR Marketing Research Glossary

## Preface

This glossary aims to explain the frequently used marketing research terms in everyday business language and in so doing encourage a greater understanding and appreciation of marketing research. The intended audience is those people who are relatively new to market research or who work only occasionally on marketing research projects. It is hoped by the author that the glossary will help people into the marketing research profession and will be a good "jargon buster" so that no-one may feel left out in any way when the going becomes rather technical.

There is inevitably a debate as to when to stop including terms in a glossary. As terms become progressively more complicated, a glossary-style treatment is insufficient to convey a complete understanding to the reader. The glossary cannot be used as a substitute for a recognised training programme in marketing research, however I hope it will be a useful companion for those on training courses.

It is vital that this glossary is a "living document" in that it grows to meet readers' needs. I should therefore welcome suggestions of new terms or alternative wordings to the existing terms.

Raymond Hastings

## A

**AAPOR** is the American Association of Public Opinion Research.

**A&U** see Usage & Attitude Surveys.

**Absolute Error** see total error.

**Accompanied Shopping** is a form of observation study where an interviewer accompanies a respondent (with his or her agreement) as they go shopping.

**Achieved Communality** a term used in factor analysis that represents the proportion of variance in an original variable accounted for by all the extracted factors. Each original variable will have an achieved communality value in the factor analysis output.

**Acquiescence Bias (aka "yea saying" or "friendliness effect")** A systematic bias caused by some respondents tending to agree with whatever is presented to them. Such a bias may be caused by either respondents or interviewers being overly friendly during interviews.

**Additive Causal Relationship** is a type of causal relationship in which the effect of two variables on a third variable is additive (ie one variable does not counteract the effect of the other variable).

**Ad Hoc Research** is research that is specifically designed to address a particular problem or issue. Ad hoc research is usually conducted when there is insufficient existing information. Ad hoc projects are usually single pieces of research rather than part of a continuous programme.

**Affective Component** is one of the three components of attitude that is concerned with individuals' emotions or feelings towards an object or idea.

**Aggregate** is a summary measure made by compounding two or more separate measures, eg national income and price index numbers.

**Aided Awareness** see prompted awareness.

**Alert** is a means of informing a data collection company of a study authorisation and it usually includes a start date, delivery of materials, quota, timings and cost etc. Alerts can be made by e-mail, telephone or fax etc.

**All Commodity Volume (ACV)** is the base commonly used in reporting a product's retail distribution. If a product is distributed in only one out of every five stores, it is 20%. However, if the stores that carry the product are the very largest stores that account for 80% of sales, then the ACV is 80%.

**Alternative Hypothesis** is a statement that suggests a difference or an effect is present (ie there is an alternative). The alternative hypothesis is adopted when the null hypothesis has been disproved.

**Analyse (aka Analysis)** is the review of information gained from the responses to questionnaires completed for a study or other data and to arrive at conclusions or to make decisions and recommendations on the subject being studied.

**Analysis of Covariance (ANCOVA)** An analysis of variance procedure in which the effects of one or more metric-scaled extraneous variables (covariates) are removed from the dependent variable data before one conducts ANOVA.

**Analysis of Variance (ANOVA)** is a statistical technique for examining the differences among means for two or more populations.

**Anchor Label** is label used to define an extremity of a measurement scale.

**Anonymity** involves concealing respondents' identities from interviewers and/or researchers.

**Answer Cards** see prompt material.

**A Posteriori** is an approach where a theoretical framework is developed from the research (after it has been conducted).

**A Priori** is an approach where a theoretical framework is developed before the research is conducted.

**Area Sampling** is a type of cluster sampling where geographical areas are the clusters.

**Arithmetic Mean** see mean.

**Artificiality** is the degree to which experimental conditions do not reflect real-life conditions. A high degree of artificiality reduces external validity (ie it becomes difficult to project the experimental results to the population of interest).

**Association Matrix** see contingency table.

**Association Technique** is a form of projective technique where participants are presented with some stimulus material and they are then asked to respond with the first thing that comes to their minds.

**Atomistic Test** is a test that aims to assess participants' reactions to individual elements of a product or concept (in contrast to a holistic test that looks at a product or concept as a whole).

**Attempt** is when someone tries to contact a potential research participant, whether or not anyone is actually reached and whether or not the contact results in the potential respondent participating in some research.

**Attitude** is an individual's learned predisposition to behave in a consistent manner towards an object or idea. There are three components of attitude: (i) a cognitive component - knowledge and beliefs (ii) an affective component - feelings and emotions (iii) a conative component - behaviour (usually measured in terms of likelihood to buy).

**Attitude Research (aka Attitude Survey)** is a research study to obtain information on how people feel about certain products, ideas or companies.

**Attitude Scaling** is the development of measurement criteria used to measure individuals' attitudes.

**Attribute** is a word or phrase to describe a qualitative characteristic of an idea or object under consideration, eg gender is a attribute but age is a variable.

**Attribute Analysis** is a technique that is designed to develop lists of characteristics, uses or benefits relevant to a particular product category.

**Audimeter** see people meter.

**Audit** has two definitions in the context of Marketing Research. A **Store Audit** is a method of determining the number of product units that have been sold by counting physical units in stores and combining that with a knowledge of the number ordered and stock levels. A second definition is a **Project Audit** that involves visiting a project site to ensure all project specifications are being met and agreed procedures are being followed.

**Average** is a general term that is used to represent or summarise the relevant features of a set of values. The arithmetic mean is often used as a measure of average, but the median and the mode can also be used to summarise a set of values.

**Average Issue Readership** is the average number of people who read a particular publication.

**Average Opportunities to See** see frequency.

**Awareness** is a measure of respondents' knowledge of an object or an idea. There are two main measures of awareness: spontaneous (or unaided) and prompted (or aided) awareness.

## B

**Baby Boomers** are those people who were born between 1946 and 1964.

**Back Checking** see validation.

**Back Translation** is a validation process where a survey is first translated into another language and then translated back into the original language by a different person. The objective is to ensure that the original translation is accurate.

**Balanced Scale** is a scale with an equal number of favourable and unfavourable categories.

**Banner Format** is a style of data tabulation where the responses from each sub-group are listed for each question in the survey.

**Banner Point** is a column heading in banner format tabulations and corresponds to a particular sub-group of the sample. It is usual practice to have the independent variables as banner points.

**Bar Chart** is a type of graph where the data is displayed in the form of bars that can be arranged vertically or horizontally.

**Base** is the required number of interviews to be completed.

**Base Line (aka Bench Mark or Pre-wave)** is the result of a study conducted to obtain a snapshot or reading of current conditions prior to some change in market conditions or the introduction of some test conditions. The result is then used as a standard for comparison with subsequent studies.

**Baysian Analysis** is a mathematical procedure based on decision theory that aims to estimate the value of a market research project.

**Bench Mark** see base line.

**Benefit Segmentation** is the dividing of potential consumers into sub-groups according the benefits sought.

**Best Light Phenomenon** is when respondents bias their answers in a market research project so that they can then appear in the best possible way to those who are looking at the responses.

**Bias** is a general term referring to the inaccuracy in a research study caused by non-sampling errors.

**Biased Question** is a question that is phrased or expressed in such a way that it influences the respondent's opinion. Such questions may provide information that leads a respondent to consider the subject in a specific way. Bias may also be introduced through verbal or facial expressions, body language or by paraphrasing the original question.

**Biased Sample** is a sample that does not contain units in the same proportion as the population of interest.

**Bimodal Distribution** is a frequency distribution with two modes.

**Binomial Test** is a statistical test of dichotomous data (where there are two possible outcomes) to check whether the research data is significantly different to what would be expected.

**Bipolar Adjectives** are two opposing adjectives that define the opposite ends of a scale (such as a semantic differential scale).

**Bipolar Scale** is a type of scale whose extremities are defined by two opposing adjectives.

**Bivariate Analysis** is the analysis of a relationship between two variables.

**Bivariate Correlation** see product moment correlation coefficient.

**Bivariate Regression** is a procedure for deriving the equation that relates a single metric dependent variable and a single metric independent variable.

**Blind Testing** is the testing of products with potential consumers where brand names, packaging and other identifying items have been removed.

**Blocking Factor** is the relevant external variable that is used to group (or block) experimental units into groups so that the experimental group and the control group are matched.

**Brainstorming Sessions** are a creative method of coming up with new ideas or solutions to a problem by generating a large number of ideas without subjecting them or the person who suggested them to critical evaluation. They can also be referred to as "ideation sessions".

**Brand** is a product or service to which human beings attach a bundle of tangible (functional product and service characteristics) and intangible (emotional and/or symbolic) meanings that add value. A brand has one strategic purpose and that is to differentiate itself from competitors.

**Brand Awareness** is a measure or indication of the readiness with which a brand springs to mind.

**Brand Equity** is a term developed to describe the financial value of a brand to the bottom line profit of a business.

**Brand Essence** is the set of core values that define a brand. These values remain constant over time even though the executional characteristics of packaging, advertising (and other marketing variables) may change. By defining the brand essence with clarity, a brand owner creates a template against which all marketing and NPD activity can be developed and integrated.

**Brand Image** is the total impression created in the mind of a potential consumer by a brand and all its functional and emotional associations. The total image can be seen as the sum of several images such as the product, user, occasion, service and personality images.

**Branding** has two meanings: (1) The process, which may take decades, by which a brand comes to have added values and involves long-term support by communications either above or below the line. (2) The associative strength between an advertisement (usually) and a brand expressed as a positive or negative relationship, ie "well branded" or "poorly branded".

**Brand Loyalty** is a general term used to describe the extent to which consumers buy or use a brand in preference to other brands. In practice consumers often buy or use several brands, therefore brand loyalty is a relative measure.

**Brand Personality** is an expression of the fundamental core values and characteristics of a brand, described and experienced as human personality traits, eg friendly, intelligent, innovative etc. It is an expression of the relationship between the consumer and the brand.

**Brand Positioning** is the location of a brand in relation to its competitors in some pre-defined space. The space may be defined by criteria used by consumers, such as "value for money" or "age of consumer" etc.

**Brand Proposition** is a sentence or phrase that encapsulates the brand benefits, eg a brand with technical superiority or a brand that guarantees next-day delivery. Often a brand benefit is translated into an end-line that becomes part of the brand communication on advertising, packaging or promotions, eg "the world's favourite airline".

**Brand Share** is the percentage of sales of a specific product category that are accounted for by one brand. Brand shares can be expressed in terms of the sales value or the volume of units sold.

**Booster** refers to additional interviews involving a particular sub-group of a sample to ensure there are sufficient members of the sub-group in the resulting sample.

**Branching Question** see skip pattern.

**Brief (aka Briefing)** can have two similar meanings in the context of Marketing Research. A Brief can be a statement (usually in writing) of a business problem that could be alleviated by conducting some marketing research. Briefs are normally written by a client company for a research supplier and they usually have a background and an objectives section. A suggested methodology section can also be included. A Briefing can be a training session prior to starting work on a study in which all specifications and details of the study are reviewed. This is generally followed by practice (or pilot) interviews where they are being used.

**Bubble Test** see thematic apperception test.

**Business-to-Business Interviews** see executive interviews.

**Busy (BZ)** is the accepted abbreviation for indicating a busy signal in a telephone survey.

**Buying Rate (aka Volume per buyer)** is the average volume purchased per buyer over the period of an analysis.

## C

**Call-back (aka Recall Interview)** is a repeat telephone call to a potential respondent to see if they can participate in a survey.

**Call Disposition** is a tabulation of the outcome of calls made during a computer-aided telephone interview (CATI) survey.

**CAGR - Compound Annual Growth Rate** is the average annual percentage growth rate for a series of  $n$  observations. The formula for determining the CAGR % is as follows:  $\left(\frac{\text{last value}}{\text{first value}}\right)^{\frac{1}{n}} - 1 \times 100\%$

**Cannibalisation** is the degree to which increased sales of one brand replace sales of another brand or brands from the same manufacturer.

**Canonical Analysis** is an extension of multiple regression analysis that deals with two dependent variables.

**CAPI** is computer-aided personal interviewing, where the responses in a personal interview are keyed directly into a computer and the administration of the interview is managed by a specifically designed

programme. The programme checks for invalid responses and will not accept responses outside prescribed limits, hence subsequent editing and keying in of data is avoided.

**Cartoon Test** see thematic apperception test.

**Case** is a complete record of an interview with a respondent or a data entry record.

**Casewise Deletion** is when an entire questionnaire from a respondent is removed from the analysis because some of the questions have not been completed.

**CASRO** is the Council of American Survey Research Organisations and it is a trade organisation for those who are actively involved or concerned with marketing and opinion research.

**Categorical Scale** is a scale that asks respondents to choose from a limited number of alternatives. There are three main types of categorical scale; semantic differential, stapel and Likert.

**Categorical Variable** is a variable that is based on non-metric data (ie data that cannot be analysed statistically such as that from a nominal or ordinal scale).

**CATI** is computer-aided telephone interviewing where the responses are keyed directly into a computer and administration of the interview is managed by a specifically designed programme. The programme checks for invalid responses and will not accept responses outside prescribed limits, hence subsequent editing and keying in of data is avoided.

**Causal Relationship** is where one can infer that two variables are related in some way. Three conditions have to be met before a causal relationship can be inferred; there has to be evidence of association (concomitant variation), the dependent variable has to change after the independent variable has changed (temporal ordering) and all other possible causes have to be eliminated.

**Causal Research** is a type of conclusive research that aims to collect data on causal relationships.

**Causal Variable** see independent variable.

**CAWI** is computer-aided web interviewing, where respondents complete a web site (or HTML) survey and some computer software, presents each question only after the previous question has been completed. Subsequent questions can be tailored to previous question answers, enabling sophisticated routing plans to be used in these surveys.

**Cell** refers to a sub-sample of respondents in a research study.

**Census** is the collection of data from all available units in a population of interest.

**Centralised Research Function** is where the marketing researchers in an organisation are located together in one department.

**Central Limit Theorem** is a theorem that states that the sampling distribution curve (for sample sizes of 30 and over) will be centred on the population parameter value and it will have all the properties of a normal distribution.

**Central Location Interviewing** is when face-to-face interviews are conducted at one or more specified locations (eg mall intercept interviewing).

**Centroid** is the average value of a group of objects in a cluster.

**Chat Room** is where participants in separate locations are invited to join a virtual group discussion using their PCs and the Internet. The discussion may or may not have a moderator and comments are communicated in writing on members' screens. Participants in the discussion are usually not screened in the same way as for an online discussion group or a moderated e-mail group.

**Chief Income Earner** is the person in the household with the largest income, whether from employment, pensions, state benefits, investments or any other source. Where there are two people with the same income, the researcher should specify who to include in the study.

**Chief Shopper** is the member of a household who is responsible for the majority of household purchasing decisions.

**Chi Square Distribution** is a skewed distribution whose shape depends on the number of degrees of freedom. As the number of degrees of freedom increases, the distribution becomes more symmetrical.

**Chi-square Test** is a non-parametric statistical test that compares research data with the expected results from a hypothesis.

**Chronological Age** is individuals' ages in years and months (which may be different to their cognitive age).

**Claimed Recall** is a measure used in advertising surveys that refers to the proportion of respondents who say they saw or heard an advertisement or a particular form of advertising.

**Clarifying** is the repeating or re-phrasing of an existing question to get a further explanation of an answer provided by a respondent.

**Classification Information** involves socio-economic and/or demographic information on participants in a market research study.

**Classification Questions** are questions that aim to collect classification information and they are usually put at the end of a questionnaire.

**Classified Scale** see nominal scale.

**Clients** are the ultimate consumers of marketing research, they create the demand for research services and pay for the research that is conducted. Clients can be internal or external. Internal clients are other users of research in the same organisation. External clients are based in other organisations.

**Client Facing Staff** are marketing researchers who are the link between research clients and the marketing research department or supplier.

**Closed-ended Questions** provide respondents with a pre-determined list of possible answers.

**Cluster Analysis** is an analytical technique that arranges research data into mutually exclusive and collectively exhaustive groups (or clusters) where the contents of each cluster are similar to each other, but different to the other clusters in the analysis.

**Cluster Sampling** is a type of probability sampling where a population of interest is divided into mutually exclusive and collectively exhaustive sub-groups (or clusters) and a sample of clusters is selected. From the selected clusters, a sample of units is drawn.

**Clutter Reels** are video tapes with a number of TV commercials including the one(s) being tested and they are used to assess a commercial's ability to stand out from the rest.

**Code and Tab Plan (aka Tab Plan)** is a plan that details the column and row headings in the cross-tabulations that are produced from the data.

**Code Book (aka Coding Frame)** is a set of instructions regarding the allocation of codes to research data. It helps researchers identify and locate the variables to be used in data analysis.

**Code of Conduct (or Ethics)** all professional marketing research societies have a code of conduct that details the rights and responsibilities of those involved with marketing and opinion research.

**Coding** is the organising of responses into categories and the assignment of a unique numerical code to each response prior to data entry.

**Coding Frame** see code book.

**Coefficient of Determination (R Squared)** is the exact percentage of variation shared by two variables, obtained by squaring the product moment correlation coefficient.

**Coefficient of Variation** is a measure of variability (or dispersion) of a distribution and it is equal to the standard deviation expressed as a percentage of the mean.

**Cognitive Age** is an individual's perceived age, which may be different to their chronological age. For example pre-teens aspire to be older and 40 year olds may well aspire to be younger.

**Cognitive Component** is one of the three components of attitude that is concerned with individuals' knowledge and beliefs.

**Cohort Analysis** is a type of multiple cross-sectional design where the population of interest is a cohort whose members have all experienced the same event in the same time period (eg birth). The samples are usually drawn at regular time intervals.

**Collectively Exhaustive** A set of alternatives is collectively exhaustive when they include all possibilities.

**Communality** in factor analysis is the amount of variance a variable shares with all the other variables being considered. It is also the proportion of variance explained by the common factors.

**Comparability** is the extent to which research results can be meaningfully compared.

**Comparative Scales** are a type of scale where one object is compared with another and a relative measure of preference is obtained, eg do respondents prefer one or another soft drink? The main types of comparative scales are: paired comparison, rank order, constant sum and Q sort.

**Compensatory Model** is a multi-attribute model in which one attribute compensates for another in the overall preference for an object or idea.

**Completes Per Hour (CPH)** is the number of interviews completed per hour of interviewing. Factors influencing CPH are: accuracy of sample, study incidence, interview length, screener length and co-operation rate.

**Completion Rate** is the proportion of qualified respondents who complete the interview.

**Completion Technique** is a form of projective technique where participants are asked to complete an incomplete situation.

**Complex Questions** are questions containing words that are unfamiliar to respondents.

**Composite Variable Index** is an index that combines a number of separate variables, eg education, income and occupation being used to form one overall measure of social class.

**Compositional Approach** is an approach to attitude measurement where the overall preference for an object is obtained by summing the evaluative rating of each attribute multiplied by the importance of that attribute.

**Conative Component** is one of the three components of attitude that is concerned with individuals' tendency to behave in a particular way towards an object or idea. It is usually measured in terms of likelihood to buy.

**Concept** is a description of a proposed product or service consisting of attributes and benefits.

**Concept Board** is a board with a written description of a product idea or positioning, often accompanied by an illustration that is shown to respondents.

**Concept Statement** is a brief written description of a new product or service idea.

**Concept Testing** is the investigation of potential consumers' reactions to a proposed product or service.

**Conclusions** are a summary of the research findings.

**Conclusive Research** involves the use of highly structured techniques (such as questionnaires with closed questions) with statistically representative samples in order to prove or disprove hypotheses.

**Concomitant Variation** is when two variables occur or vary together. It is one of the conditions that has to be met in order to infer a causal relationship.

**Concurrent Validity** is the degree to which two different measuring systems produce correlating results. It is often used to determine the validity of new measuring techniques, by comparing them with established techniques.

**Conditional Probability** is the probability of a research outcome occurring if a state or condition was to exist.

**Confidence Coefficient** see confidence level.

**Confidence Interval** is a range of values centred on the sample estimate that is known to contain the true value with a given degree of confidence (usually 95%).

**Confidence Level (aka Confidence Coefficient)** is a percentage (usually 95%) that reflects the degree of certainty that the true value lies within the confidence interval. It is the minimum probability of not rejecting a true null hypothesis (committing a Type I error) and is equal to one minus the significance level.

**Confidence Limits** are the two values from each end of a confidence interval.

**Confidentiality** refers to the act of not divulging two types of information in a research study. First, confidentiality is maintained when study information such as client name, brand name, purpose of the research, concepts and/or products (except as directed by the study instructions) is only provided to those who have a need to know. Confidentiality also refers to maintaining the privacy of information collected from or about any individual respondent.

**Confounding Variables** see external variables.

**Conjoint Analysis (aka Trade Off Analysis)** is a research technique that aims to describe how consumers make complex decisions by assuming the decisions are based on a number of factors considered jointly (hence the name) and they trade off some factors for others. The technique requires participants to choose a limited number of attributes from a selection, thereby providing an indication of the importance attached to particular attributes.

**Consideration Set (aka Evoked Set)** is the set of alternatives that potential consumers would consider when buying a product or service.

**Consistency Check** involves identifying completed questionnaires with data that are out of the permissible range, logically inconsistent or have extreme values. Data that is out of the range of the coding scheme is inadmissible.

**Constant Sum Scaling** is a type of comparative scale where respondents are asked to allocate a fixed amount (or constant sum) of points, dollars or anything among a set of objects according to a criterion.

**Construct** is a set of attitudes or values used by consumers.

**Consumer** is the ultimate user of a product or service.

**Consumer Confusion Study** is a study that aims to measure the tendency of consumers to confuse the company that makes a particular brand with another company, or to confuse one brand with another.

**Consumer Panel (aka Panel)** is a group of selected research participants who have agreed to provide pre-designated information at regular specified intervals over an extended period of time. The information may be on purchasing, media consumption or life-style activities.

**Consumer Satisfaction Surveys** are studies that aim to determine consumers' opinion of the quality of goods and services offered by a business. They can include qualitative and quantitative research techniques.

**Consumer Survey** is an investigation of the behaviour, preferences, attitudes or opinions of a target group sample, collected through a questionnaire.

**Contact** is an interviewer's interaction with a potential respondent to determine eligibility for participation in a marketing research study.

**Content Analysis** is an analysis technique where written material is broken down into meaningful units using carefully designed rules.

**Contingency** is the difference between an actual frequency and an expected frequency in a table.

**Contingency Table (aka Association Matrix)** is a cross-tabulation table that contains a cell for every combination of categories of the two variables.

**Continuous Data** is that from a measurement scale where it is permissible to calculate intermediate values.

**Continuous Panel** is a consumer panel that involves participation from the same respondents repeatedly over time. This contrasts with an ad hoc panel, where a pre-recruited group of willing respondents are used as and when they are required.

**Continuous Rating Scale (aka graphic rating scale)** is a type of non-comparative scale that offers respondents a form of continuum (such as a line) on which to provide a rating of an object according to a criterion.

**Continuous Research** is any research that involves the regular, on-going collection of data, eg consumer panels and epos data.

**Contrived Observation** is the observation of behaviour in an artificial setting.

**Control Cell** is a group of respondents that receives the normal (or no) treatment and provides a basis of comparison to the test or experimental group that receives the test or experimental treatment.

**Controlled Store Test** is a type of research experiment where one group of stores receives a certain treatment (test stores) and another group receives no treatment (control stores). Sales are then measured for each group over an extended period of time to measure the effect of the treatment.

**Convenience Sample** is a type of non-probability sample where the units have been selected because they are convenient for the researcher (which may not be the optimum sample for the research project).

**Convergent Validity** is the ability of a measurement scale to correlate (or converge) with other measures of the same variable.

**Cookie File** is a computer file that is secretly added to the hard disk of someone who visits a web site that sends them. Their purpose is to track web site visitors, however the use of cookies in marketing research is not approved by ESOMAR.

**Co-operation Fee** see incentive.

**Co-operation Rate** is the proportion of eligible respondents who, having been contacted, agree to participate in a research study. The co-operation rate is impacted by the length of the interview, the subject matter and the type of person being interviewed.

**Copy Point Recall** is an advertising research measure of a respondent's ability to remember a particular message, slogan or theme etc from a commercial.

**Copy Testing** is a method of determining the degree of understanding, impact, awareness and believability that an ad may generate. Respondents are shown the ad, then they are questioned about their opinions.

**Correlation** is the existence of a relationship between two variables (which may or may not be a causal relationship - correlation on its own does not infer causality).

**Correlation Coefficient** see product moment correlation coefficient.

**Correspondence Analysis** is a perceptual mapping technique that is based on data where respondents are asked to identify only the attributes that relate to (or correspond with) the subject of the study.

**Cost per Interview** is determined by dividing the total budget for a project by the number of completed interviews.

**Counter-biasing** is a technique that is used to increase respondents' willingness to answer questions honestly. Questions are prefaced with statements that attempt to justify an answer that may go against social group norms, eg "recent surveys have indicated that the majority of people have difficulty saving every month".

**Covariance** is the extent of a relationship between two variables, whereby a change in one variable implies a change in the other.

**Covariate** is a metric independent variable (ie based on data that can be analysed such as that from an interval or a ratio scale).

**Coverage** is the proportion (usually expressed as a percentage) of a population of interest that has been exposed to a particular advertisement.

**Creative Development Research** is a type of qualitative research that is used to formulate advertising. It can work at three stages in the advertising development process (i) Defining the strategy - ie what should the advertising be saying? (ii) Defining the execution - ie how should it be said? (iii) Testing a chosen execution.

**Cross-cultural Analysis** is the collection and analysis of data from different countries (or cultural units) that compares the findings from different countries.

**Cross-sectional Design** is a research design that involves the collection of data from a sample only once.

**Cross-tabulation** is a table that shows the frequency and/or percentage of respondents who gave various answers to a question in a survey, and which simultaneously shows these answers for various sub-groups of respondents.

**Cross-validation** is a test of validity for a regression model that involves using comparable data to check the validity of an original estimation.

**Culture** is the total sum of learned beliefs, values and customs that serve to regulate the consumer behaviour of members of a particular society.

## D

**Data** are research facts that are based on respondents' answers to questions.

**Database** is a centrally held collection of data that allows access and manipulation by one or more users.

**Data Cleaning** see editing.

**Data Collection** is the gathering of information (figures, words or responses) that describes some situation from which conclusions can be drawn.

**Data Collection Company** is an enterprise or agency that supplies trained interviewers for clients and receives payment for services delivered. The service is responsible for hiring and training of interviewers, executing a client's job exactly as specified, editing and validating each interviewer's completed assignment.

**Data Collection Instrument** is any device that is used to gather information from respondents, eg questionnaires, video recorders, tape recorders.

**Data Deck** is a complete set of responses in a given study.

**Data Entry (aka Transcribing)** is the act of inputting data into a database.

**Data Processing** is the counting and tabulation of raw facts (ie data) into a form that is suitable for future use. This term is usually associated with computer tabulations.

**Data Reduction Plan (aka Edit Instructions)** is a set of instructions for editing and coding the questionnaire and specifies how the data should be evaluated for inconsistencies, skipped questions etc and then verified.

**Day After Recall** is a standard measure of the impact of a TV commercial where respondents' recollection of a commercial is tested the day after they are exposed to it.

**Debranding** is the removal of brand names, packaging or other material that would enable research participants to identify a brand.

**Debrief** is the presentation of research findings to clients.

**Decentralised Research Function** is where the marketing researchers are spread throughout an organisation and are not located together.

**Deductive Research** see conclusive research.

**Degrees of Freedom** refers to the number of ways in which values could be assigned within a system. For example a table of observations with  $p$  rows and  $q$  columns has  $(p-1)(q-1)$  degrees of freedom. (In a sample of size  $n$  grouped into  $k$  intervals, there are always  $(k-1)$  degrees of freedom, because if  $(k-1)$  frequencies are specified, the other is determined by the total size  $n$ .)

**Delphi Approach** is an approach to forecasting where a group of people produce separate forecasts and then each member is given information about the other forecasts and asked to revise their original estimate. The objective of the approach is to converge forecast estimates.

**Demand Artefacts** are the responses given when respondents attempt to guess the purpose of the questions being asked. Demand artefacts can be the result of experimental conditions.

**Demographic Information** is based on the age, gender, life-cycle stage, income and occupation of consumers.

**Dendogram** is diagram that shows a hierarchy and the relation of subsets in a structure. It branches like a tree and is usually read downwards from the main trunk.

**Deontology** is a non-consequential approach to evaluating ethics, whereby the degree of ethicalness depends on the intentions behind the decisions rather than the outcomes or actions that result.

**Dependence Techniques** are types of multivariate analysis techniques that are used when one or more of the variables can be identified as dependent variables and the remaining variables can be identified as independent.

**Dependency** is when one variable is influenced to an extent by another variable.

**Dependent Variable (aka Effect Variable)** usually denoted as  $y$ , is a variable that is influenced to some extent by one or more other (independent) variables.

**Depth Interview** see in-depth interview.

**Descriptive Research** is a form of conclusive research that aims to describe a product or market or identify associations among variables.

**Design** see research design.

**Desk Research** is the systematic examination of all available secondary data in the context of a particular marketing research problem.

**Deviation** is the difference between the mean and an observed value.

**Diad** is an in-depth interview involving an interviewer and a participant (ie two people only). It is also referred to as a "one-on-one".

**Diary** is a log where facts are recorded relating to a respondent's experiences with a subject or product. Diaries can also be a record of regular purchases or viewing habits and they are often given to respondents when they receive a product to use at home.

**Diary Panel** is a type of consumer panel where participants record activities or events in a diary.

**Dichotomous Questions** are questions with only two alternatives, eg agree/disagree or yes/no.

**Direct Observation** is when behaviour or events are observed while something is happening.

**Direct Paired Comparison** is a question that directs the respondent to make a comparison between two objects, eg "which of these two products do you prefer?"

**Direct Question** is a question to research participants about their own behaviour (as opposed to an indirect question that asks them about the behaviour of other people).

**Direct Questioning Techniques** are ways of asking people directly for information, such as personal or telephone interviews and mail surveys.

**Disc (Disconnect)** is the accepted abbreviation to indicate that a phone number has been disconnected, usually noted on the dialling report by the interviewer.

**Discrete Data** is that from a measurement scale consisting of a number of separate values where intermediate values are not permissible, eg the number of cars per household.

**Discriminant Analysis** is an analysis technique where the dependent variable is non-metric (ie nominal or ordinal in nature) and the independent variables are metric (ie interval or ratio in nature).

**Discussion Guide** is an outline of the subjects to be discussed during group discussions and/or in-depth interviews.

**Disguised Observation** is the observation of behaviour without participants' knowledge.

**Disguised Questioning** is any form of questioning where respondents are unaware of the true purpose of the questions.

**Disproportionate Stratified Sample** is a type of probability sample where the probability of a unit being selected from a stratum is not proportional to the number of units in the strata. This sampling approach is used when there are strata in the population of interest that are quite small but very important and they may not be adequately represented in a survey if other sampling approaches are used.

**Disqualifier** is an answer to a question that makes the respondent ineligible to participate in the research project.

**Distribution** is a frequency or percentage table showing how a set of respondents is divided into various categories, eg percent who bought 1-5 times, 6-10 times, 11+ times.

**Distribution Check** is a check and recording of the availability of specific items in stores.

**DK (Don't Know)** is the abbreviation recorded when a respondent lacks the knowledge to provide an answer to a question.

**Door-to-Door Survey** is a survey where the interviews are conducted in pre-selected areas involving knocking on the doors of homes to find qualified respondents.

**Double-barrelled Questions** are those that ask two questions at the same time. They can confuse respondents and answers to such questions are uninterpretable, because it is not possible to determine to which question the answer refers.

**Double Blind Test** is a product test where both the researcher administering the test and the participants are unaware of the complete identity of the products being tested.

**Dual Moderator Group** is a group discussion with two moderators, each moderator having a different role, eg one to ensure the smooth running of the group and the other to discuss or explain key issues.

**Dummy Variables** are a way of respecifying categorical variables in data analysis by giving them either of two values (eg 0 or 1).

## E

**Econometrics** is the analysis of economic systems containing supply and demand data using statistical models.

**Editing (aka Data Cleaning)** involves examining each completed questionnaire to ensure that the proper sequence of questions has been asked, the answers are clear and consistent and they have been correctly marked.

**Edit Instructions** see data reduction plan.

**Effect Variable** see dependent variable.

**Eligibility Criteria** are specified characteristics that potential participants must possess in order to be involved in a particular research project.

**Eligible Respondent** is a person who meets certain criteria set for a particular study and thus qualifies to be included in the study. Respondents may be qualified on characteristics such as age, income, brand used etc.

**Empty Nesters** are those people whose children have left or are about to leave the family home.

**Enabling Techniques** see projective techniques.

**End Piling** is a phenomenon where many survey responses fall into just a few categories at the end of a measurement scale.

**EPOS Data** is electronic point of sale data and it measures sales of products as they are being paid for by consumers.

**Error** see total error.

**ESOMAR** is the world association of research professionals. Founded in 1948 as the European Society for Opinion and Marketing Research - ESOMAR unites 4,000 members in 100 countries, both users and providers of opinion and marketing research. ESOMAR's mission is to promote the use of opinion and market research for improving decision-making in business and society world-wide. The address is Vondelstraat 172, 1054 GV Amsterdam, The Netherlands (31 20 664 2141).

**Evoked Set** see consideration set.

**Executive Interviews (aka Business-to-Business Interviews)** are interviews with business people or experts within a particular field. Executive interviews are often used where the majority of knowledge of a subject is held by a minority of people.

**Executive Summary** is a document that summarises all the sections of a market research report.

**Exhibits/Exhibit Cards** see show cards.

**Expected Value** in a cross-tabulation is the number of objects one would expect to find after multiplying the probabilities of the row and the column in the table (which may be different to the observed value).

**Experience Survey** is a survey involving participants who have knowledge of a particular situation.

**Experiment** is the process of manipulating one or more independent variables and measuring their effect on one or more dependent variables, while controlling for external variables.

**Experimental Design** is a set of experimental procedures specifying: the test units, sampling procedures, independent variables, dependent variables and how external variables are to be controlled.

**Experimental Error** is the error caused by the conditions of the experiment itself and it creates uncertainty that the observed effects may not be due to the manipulation of the independent variable.

**Experimental Treatments** are the different conditions created by manipulating the independent variable.

**Experimental Units** are the objects or people who are part of the experiment.

**Expert Opinion Survey (aka Key informant Technique or Specialist Research)** is a form of exploratory research that involves discussing a research problem with someone (or a group of people) with experience on a particular subject.

**Exponential Smoothing** is a statistical technique that calculates a moving average where the most recent data are given a different weight to earlier data.

**Exploratory Research** refers to the initial investigation of a problem that uses unstructured techniques (such as group discussions or in-depth interviews) in order to develop hypotheses and/or understand a problem further.

**Extended Group Discussion** is a group discussion that has been designed to last around 3-4 hours (compared with the usual time of around an hour and a half).

**Extended Use Test** see home use test.

**External Secondary Data** are existing data that have already been collected by other organisations.

**External Validity** is the extent to which experimental results can be projected to a population of interest.

**External Variables (aka Extraneous Variables or Confounding Variables)** are factors that are not manipulated as part of an experiment, but they may exert some influence on the dependent variable under study.

**Extraneous Variables** see external variables.

**Eye Tracking Research** involves the use of various mechanical devices to record participants' eye movements when they are looking at some form of stimulus (such as a press advert in a newspaper).

## F

**Fact** is a statement that is objectively true and can be verified.

**Factor** is an underlying construct defined by a linear combination of variables.

**Factor Analysis** is a form of multivariate analysis that takes a large number of variables or objects and aims to identify a small number of factors that explain the interrelations among the variables or objects.

**Factorial Design** is a type of statistical experimental design where units are assigned to groups that represent all possible combinations of the independent variables of interest.

**Factor Loading** is the correlation (or regression weight) of a variable with a factor.

**Factory Staff** are those who are mainly involved with conducting marketing research and have limited contact with research clients.

**Field** is the physical location where the interviewing takes place.

**Field Director** see field supervisor.

**Field Experiment** is one that is conducted in a natural setting (where the external validity is usually higher than the internal validity).

**Field Force** refers to the interviewers and supervisors who are involved in data collection.

**Field Service** see data collection company.

**Field Supervisor (aka Field Director)** is the person who is responsible for selecting, hiring and training interviewers. He or she is also responsible for the data collection phase of the survey and following the agreed instructions.

**Fieldwork** is a general term that refers to any data gathering process.

**Filter question** is a question in a questionnaire to ensure that respondents meet the required criteria for a subsequent question (or questions) in a survey.

**Findings** are information that answer a research question.

**Fixed Field Code** is a code in which the number of records for each respondent is the same and the same data appear in all the same columns for all respondents.

**Fixed Sample** is the repeated observation of the same sample of respondents over a period of time.

**Focus Group (aka Focus Group Interview or Group Discussion)** is a type of qualitative research that consists of an informal discussion of a particular topic with a small number of selected participants (usually 8-12). The discussion is guided by a skilled moderator who does not influence the outcome, but ensures that all the subject areas are discussed by the group and the views of the participants are as clear as possible. The ideal number of participants depends on the subject matter being discussed, eg complex subjects may be better discussed with fewer participants - possibly 4-6.

**Folder Test** is a qualitative press advertising test where the advertising is placed in a folder with competitive advertising (and editorial extracts) and respondents are asked to page through it.

**Forced Exposure** is when research participants are exposed to some advertising in a contrived way (such as in a hall test or a focus group) as opposed to an on-air test where participants see the advertising in a natural setting (such as in their own homes).

**Forced Rating Scale** is a scale that does not allow a neutral or no opinion choice.

**Frequency (aka Average Opportunities to See)** is the average number of times an advert has been exposed to a specified television audience or universe.

**Frequency Distribution** is a representation of the number of counts of objects or responses, usually in the form of a table or graph.

**Friendliness Effect** see acquiescence bias.

**Friendship Pair Interview (aka Paired Depth or Triad)** is a type of depth interview where there are two respondents (instead of the usual one). Friendship pair interviewing is often used for research with children and young people (where they know each other) in order to avoid respondents being intimidated and biasing their responses accordingly.

**Front-of-mind Awareness (aka Top-of-mind Awareness)** is a measure of how readily a brand name or concept comes to respondent' minds. It is the first answer to questions such as unaided brand awareness.

**Frugging** is fund raising under the guise of research and it is one of the reasons why potential participants in market research projects are reluctant to take part.

**F Test** is a statistical test of the equality of the variances of two populations.

**Full Service Agency/Supplier** is a company that is hired to design, manage and implement a research project, as well as analyse and interpret the data. The company may collect the data themselves or hire a data collection company for this phase of a project.

**Funnel Approach** is a way of ordering questions in a questionnaire so that general questions are asked before specific questions. This ordering avoids the responses to specific questions biasing the answers to general questions.

## G

**Gain Score** is the difference between pre-treatment and post-treatment measurements.

**Galvanic Skin Response Meter** is a device that measures changes in the electrical resistance of the skin (due to perspiration).

**Generalizability** is the extent to which inferences can be drawn about the population of interest based on the results of some research.

**Generation X** are 18-29 year old post baby-boomers.

**Geodemographic Information** is based on a combination of demographics (age, gender, life-cycle stage and occupation) with geographical area.

**Goodness of Fit Test** is a statistical test of non-parametric data to determine whether the results from research are consistent with the expected results from a particular hypothesis. Examples are: Chi Square goodness of fit and Kolmogorov Smirnov test.

**Graphic Rating Scale** see continuous rating scale.

**Gross Rating Point** see television rating.

**Group Discussion** see focus group.

**Group Effect** is a type bias that occurs in face-to-face group discussions where some participants moderate their opinions in order to go along with a majority view of the rest of the group. The result of a group effect is that a consensus may not be representative of all the opinions present in the group.

**Groupware** refers to the computer software that is used to run online group discussions.

## H

**Hall Test** is where research participants are invited to a central location to participate in some (usually quantitative) market research.

**Halo Effect** is a form of response bias where a respondent carries an overall generalised positive or negative impression from one specific characteristic to the next, eg if a respondent considers a product to be excellent, then he or she is likely to rate the product highly on taste, appearance and texture etc.

**Hand Tab** is the simplest type of tabulation possible, consisting of a manual count of the answers to certain questions on the questionnaire.

**Head of Household** is that member of the household who is responsible for the household having that accommodation, either by owning, renting or having it rent-free. Where two or more people share this responsibility, the researcher should specify who to include in the study.

**Hedonic Scale** is a scale that indicates the extent of respondents' overall liking or disliking for something, eg a product they tasted or a concept they viewed.

**Hidden Issue Questioning** is a technique used during depth interviews that aims to identify significant personal views that would otherwise not be revealed by respondents using a direct approach.

**Hierarchy-of-effects Model** is a marketing behavioural response model consisting of stages through which a buyer is presumed to go, including: awareness, knowledge, liking, preference, intention to buy and purchase.

**Histogram** is a vertical bar chart where the height of the bars represents the data.

**History Error** occurs in experiments when an unexpected (but significant) effect occurs that has an impact on the dependent variable being measured.

**Holistic Test** is a test that aims to assess participants' reaction to a product or concept as a whole (in contrast to an atomistic test that examines reactions to the individual elements).

**Home Audit (aka Pantry Check)** is a survey where an interviewer enters a participant's home to take an inventory of specific products present at that time.

**Home Use Test (aka Extended Use Test or Product Placement Test)** involves participants evaluating products in their own homes, or more generally, in a natural usage environment. The purpose of the test is to make an evaluation of a product after more experience with it than just some initial use.

**Host or Hostess** is the person whose major responsibility is the comfort of clients, guests and respondents at a focus group or central location test.

**HTML Survey** see web site survey.

**Hypothesis** is an unproven statement that aims to describe a relationship or phenomenon that is relevant to a business.

**Hypothesis testing** is a statistical procedure used to compare a sample mean to a specified value or to compare a pair of sample means.

## I

**Ideal Population** see population of interest.

**Identification information** lists details such as the name and address of participants in a market research project whereby they can be identified.

**Implicit Alternatives** are alternatives in a question that are not expressed openly. Such alternatives may have lower chance of being selected and therefore the data may be biased.

**Implicit Assumption** is when all respondents are assumed to have the same level of knowledge on a subject. Questions with implicit assumptions can lead to instrument error and/or respondent error.

**Implied Population** is the population as suggested by the sample, ie it is that part of the population of interest that was available for the research. When a convenience sample is used or where there is sampling frame error, the implied population could be significantly different to the population of interest (or the ideal population).

**Imputed Response** is a substitute for a missing response that is based on the pattern of other responses from a survey respondent.

**Inability Error** is where respondents are unable to answer a particular question. This may be because they have not understood the question, they do not have the information the question requires, they cannot remember the circumstances to which the question refers or they are unable to articulate certain types of responses.

**Incentive (aka Co-operation Fee or Respondent Fee)** is a reward given to participants or businesses for taking the time and trouble to co-operate in a marketing research study.

**Incidence (aka Strike Rate)** is the proportion of respondents contacted in a survey who qualify for the survey.

**In-depth Interview (aka One-on-One or Diad)** is a type of qualitative research involving an unstructured personal interview with a single respondent, conducted by a highly skilled interviewer. The purpose of in-depth interviews is to understand the underlying motivations, beliefs, attitudes and feelings of respondents on a particular subject.

**Index** is a variable that is determined by dividing one measurement by another, and it is usually expressed as a percentage. Indices can be used to show variations over time, by comparing subsequent measurements of a variable with an initial measurement (an index of 100 indicates no change). Indices can also show the relative incidence of a particular characteristic in two samples, by dividing the percentage of one sample by the other, indices of 120 and over or 80 and below generally indicate above-average and below-average skews respectively.

**Indirect Approach** is one where the true purpose of a research project is disguised. Indirect approaches are used when revealing the true purpose of the research would bias the responses given by participants.

**Indirect Observation (aka Trace Analysis)** is an observation technique where some record of past behaviour is used to deduce what happened during an event, eg looking at packaging usage in a fast food restaurant to understand what flavoured drinks sell the most.

**Indirect Question** is a question to research participants that asks them to consider the behaviour of other people instead of their own. The purpose of indirect questions is to avoid bias caused by social group norms and the best light phenomenon.

**Independent Samples** are samples that are not linked experimentally and the measurement of one sample has no effect on the others.

**Independent variable (aka Causal Variable)** is a variable that exerts some influence on another (dependent) variable. Research experiments usually involve some manipulation of independent variables and measurement of dependent variables to investigate the relationship between them.

**Inductive Research** see exploratory research.

**Industrial Survey** is a marketing research study that focuses on products and services utilised by businesses and manufacturing firms, conducted among respondents employed in such businesses (as opposed to a consumer survey).

**Initial Refusal** occurs when a respondent refuses to participate in a survey at the interviewer's initial introductory statement.

**Inferential Analysis** is the analysis of data to test a specific hypothesis.

**Information** involves the analysis and interpretation of data to describe something about a market.

**Informed Consent** is the principle that researchers should try to avoid both uninformed and misinformed participation by subjects in research.

**In-home Interview** is where participants are asked survey questions face-to-face in their own homes.

**In-house Research** is research that is conducted by the staff in a client company (rather than by an agency).

**In-street Interview** is where participants are asked survey questions face-to-face in the street.

**Instrument Error** is a type of non-sampling error caused by the survey instrument (or questionnaire) itself, such as unclear wording, asking respondents for information they are unable to supply or the instrument being changed in some way during the course of the research.

**Intended Sample** is the ideal sample for a particular research project (which may be different to the resulting sample).

**Interaction Effect** is the effect of all the factors working together, which is greater than the sum of the separate effects.

**Interactive Testing Effect** see pre-test manipulation interactive bias.

**Intercept Interview (aka Mall Intercept Interview)** is a type of central location interviewing where respondents are approached (or intercepted) in high traffic locations such as grocery stores or shopping malls. The main part of the interview can take place either on the mall floor or in another location (usually nearby).

**Interdependence Techniques** are types of multivariate analysis techniques that are used where no distinction is made as to which variables are dependent or independent.

**Interdependency** is when variables each influence each other to some degree.

**Interlocking Quotas** are the numbers of interviews required with participants having several pre-defined characteristics such as age, life-cycle stage and income level.

**Interquartile Range** is a measure of variability and it is the range between the upper and lower quartiles (ie the middle 50% of a distribution) and it is equal to the difference between the 75th and the 25th percentile.

**Internal Secondary Data** are data that have already been generated and/or collected by a business during its normal course of activity.

**Internal Validity** is a measure of the accuracy of an experiment in terms of the degree to which changes in the dependent variable can be attributed to manipulations of the independent variable.

**International Code of Marketing and Social Research Practice** is the code of conduct of ESOMAR and sets out the rights and responsibilities of those involved in marketing and social research.

**Interval Scale** is a scale where equal intervals in the scale correspond to equal changes in the characteristic being measured, eg temperature scales (Celsius/Fahrenheit). Differences between objects can be analysed statistically (which is not possible with nominal or ordinal scales).

**Interview** is the exchange of information between an interviewer and a respondent. A questionnaire is the vehicle used for this exchange, and the interviewer records the responses to a question or a series of questions on paper or by using a computer programme. The exchange can be face-to-face, on the telephone or via a computer link of some form.

**Interviewer Bias** see interviewer error.

**Interviewer Cheating** is when interviewers knowingly do not follow their instructions.

**Interviewer Error (aka Interviewer Bias)** is a type of non-sampling error caused by mistakes made by the interviewer. These may include influencing the respondent in some way, asking questions in the wrong order, or using slightly different phrasing (or tone of voice) than other interviewers. It can include intentional errors such as cheating and fraudulent data entry.

**Intra-cultural Analysis** is the breakdown of data into individual countries (or cultural units) and analysis within each individual country.

**Itemised Rating Scale** is a type of non-comparative scale where each choice category has some form of description (as opposed to a semantic differential scale, where only the extreme categories are labelled).

**Inverted Funnel Approach** is a way of ordering questions in a questionnaire where the specific questions are asked before the general questions. The approach can be useful where respondents do not have strong feelings or a general view on a subject.

## J

**Judgement Sample** is a type of non-probability sample where the selection of units is based on the judgement of the researcher.

## K

**Kelly Repertory Grid** is a qualitative research technique that aims to describe how potential consumers perceive products. Participants are presented with three attributes and they are asked to think of ways in which two are similar to each other but different from the third.

**Key Informant Technique** see Expert Opinion Survey.

**Key Word Recording** is a method used by interviewers to record answers to open-ended questions where only the important words and phrases are recorded.

**Kolmogorov Smirnov One Sample test** is a non-parametric goodness-of-fit test that compares the cumulative distribution function for a variable with a specified distribution, based on one sample.

**Kolmogorov-Smirnov Two Sample Test** is a non-parametric statistical test to determine whether two distributions are the same. The test takes into account differences in means, dispersion and skewness.

**Kurtosis** is a measure of the relative peakedness or flatness of a distribution curve compared with a normal distribution. A positive Kurtosis value indicates that the distribution is more peaked than a normal distribution. A negative Kurtosis value indicates that the distribution is flatter than a normal distribution.

## L

**Laboratory Experiment** is one that is conducted in an artificial setting (where the internal validity is usually higher than the external validity).

**Laboratory Test Market** is a simulated market-place situation for new products where consumers are exposed to advertising and visit an experimental store where they may buy products under controlled conditions. Through follow-up interviews, focus groups and purchase patterns, the market shares for new products can be predicted.

**Laddering** is a technique for conducting depth interviews where questions progress from product characteristics to user characteristics.

**Latin Square Design** is a type of statistical experimental design where the aim is to remove the error associated with variations in two non-interacting external variables in order to understand the effect of each variable in addition to the effect of manipulating an independent variable. Experimental units are allocated in such a way that variations in experimental treatments occur once in each row or column (in a table of treatments).

**Leading Question (aka Loaded Question)** is one that suggests an answer by the way in which the question is worded.

**Length of Interview** is the time it takes to ask the questions and record the answers in a survey. This time should include any time required to taste products or review concepts etc. Screening time should be shown separately so that accurate completion rates can be calculated.

**Level of Significance** see significance level.

**Lifestyle** is a term that originally referred to the attitudes, interests and opinions of research participants, but it can be used to refer to differences in behaviour that relate to social values.

**Likert Scale** is a type of categorical, non-comparative scale that determines respondents' levels of agreement to a series of statements relating to an attitude being measured.

**Linear Regression Analysis** is a type of regression analysis between variables that are believed to have a linear relationship.

**Line Chart** is a chart where a series of data points are connected by a continuous line.

**Literature Search** is a review of all available secondary data sources on a particular subject.

**Loaded Question** see leading question.

**Location Studies** are research projects that aim to identify the best position (usually for a retail outlet).

**Longitudinal Design** is a type of research design where a fixed sample of population units is measured repeatedly.

## M

**Mail Panel** is a type of consumer panel where participants have agreed to complete a limited number of mail surveys each year. The household classification data of the participants is known in advance, which allows a client to select a sample of respondents with whom to conduct a survey. Mail panels can be local or national in scope.

**Mail Survey** is one where respondents are asked to complete a questionnaire (unaided) and return it to the sender either by post or e-mail. The respondents may or may not be recruited in advance of the survey.

**Main Testing Effect** see pre-testing bias.

**Mall Intercept Interview** see intercept interview.

**Mann-Whitney U Test** is a test that compares the location of two populations, based on samples from each population. The variables used are measured on an ordinal scale.

**Market** is the geographical area or areas in which a research project takes place, eg part or all of a country, or part or all of a city.

**Marketing Decision Support System** is a type of marketing information system where decision makers can make particular requests for information that may not be part of the existing on-going reports.

**Marketing Information System** is a set of formal procedures for collecting and analysing data from all sources and disseminating information regularly to marketing decision makers.

**Marketing Research** (as defined by the American Marketing Association) is the systematic and objective identification, collection, analysis and dissemination of information for the purpose of improving decision making related to the identification and solution of problems and opportunities in marketing.

**Market Share** see brand share.

**Market Test** see test marketing.

**Matching** is the organising of experimental units into test and control groups so that they share some particular characteristics that are relevant to the research.

**Maturation Error** occurs in experiments when there is a gradual change in the dependent variable over time that is not caused by the independent variable, eg participants' knowledge levels increasing over the period of an experiment.

**Mean (aka arithmetic mean)** is a summary measure of central tendency that is equal to the sum of a set of values divided by the number of values in the data.

**Measures of Central Tendency** are those that describe the centre of a distribution. Examples of measures of central tendency are: mean, median and mode.

**Measures of Location** are statistics that describe the location within a data set. Examples of measures of location are the 25<sup>th</sup> percentile or the largest value. The mean, median and mode are also examples of measures of location (in addition to being measures of central tendency).

**Measures of Shape** are skewness and kurtosis that describe the outline of a distribution.

**Measures of Variability (or dispersion)** are those that indicate the spread of a distribution. Examples of measures of variability are: range, interquartile range, variance, standard deviation and coefficient of variation.

**Measurement Scale** is a device that assigns numbers to objects, events or people according to a set of rules.

**Measurement Timing Error** occurs in experiments when there are changes in the dependent variable that are caused by taking measurements at different times.

**Mechanical Observation** is when some form of mechanical device records the behaviour of interest, eg a people-meter recording who watches what TV programmes.

**Median** is a measure of central tendency that identifies the middle-point value (or 50<sup>th</sup> percentile) in a set of values when they are arranged in order of magnitude.

**MEG (Moderated E-mail Group)** is where a group of pre-recruited research participants are all in e-mail contact with a facilitator and the facilitator e-mails questions to them on a particular subject. At periodic intervals, the facilitator produces a summary of views and sends it to all the participants. It is similar to an online focus group in that the participants are unable to see each other therefore no visual signals can be communicated, although anonymity can be assured.

**Methodology** is a description of the way in which the data is collected for part or all of a research project.

**Metric Data** is data that can be analysed statistically, such as that from an interval or ratio scale.

**Mini Group Discussion** is a focus group with fewer participants (usually 4-6) than the normal 8-12.

**Mode** is a measure of central tendency that identifies the most frequently occurring value in a set of values.

**Moderator** is someone who leads (but does not influence the outcome of) group discussions and/or in-depth interviews.

**Monadic Evaluation (aka Single Product Test)** is a study or part of a study in which the respondents evaluate only one stimulus on its own merits and there is no comparison with other stimuli. The stimulus can be a product, a concept or an advertisement etc.

**Monitor** is a quality control measure that may involve observing, auditing and checking the interviewing to ensure that the required procedures are followed and to give feedback and instruction to the interviewers. Monitoring is one means of validating or giving assurance that data is collected from qualified respondents who are interviewed under prescribed conditions. Monitoring can be done in person for face-to-face interviews or by phone for telephone interviews.

**Mono-polar Scale** see stapel scale.

**Mortality Error** occurs in experiments when changes in the dependent variable are caused by experimental units no longer being part of the experiment.

**Motivational Research** is qualitative research that examines the relationship between the "personality" of the consumer and the "personality" of the product. It can involve research techniques

that have been borrowed from psychological analysis. It is used to uncover conscious and/or subconscious attitudes that participants either may be unaware of and/or they would not normally reveal when questioned directly.

**Moving Average** is the mean of a series of measurements that have been taken over a period of time. Moving averages can be used to eliminate a seasonal bias in some data.

**MRA** is the Marketing Research Association (based in the US) and it is a professional society for those who are involved or concerned with marketing and opinion research. Its mission is to promote excellence in marketing and opinion research by providing members with a variety of opportunities for advancing and expanding their marketing research and related business skills and to act as an industry advocate with appropriate government entities, other associations and the public. The address is 1344 Silas Deane Highway, Suite 306, Rocky Hill, CT 06067-0230.

**MRS** is the Market Research Society (based in the UK) and it is a professional society for those who are involved or concerned with marketing and opinion research. The address is 15 Northburgh Street, London, EC1V 0AH.

**Multi-client Research** see syndicated research.

**Multi-collinearity** is a state of high intercorrelations among independent variables.

**Multi-dimensional Scaling** is a perceptual mapping technique that represents perceptions and preferences of respondents as a spatial map. The axes of each map are the underlying dimensions that respondents use to form their preferences and perceptions.

**Multi-item Scale** is a measurement scale that gathers opinions about an object on a number of dimensions and the data can be collated to produce a combined rating. The dimensions used can come from secondary sources and/or qualitative research. The intended use of the resulting data will also determine which dimensions are included in the scale.

**Multi-Stage Sample** is a sample that is selected in stages, where the sampling units at each stage are sub-samples from the previous stage.

**Multiple Answers** are when more than one answer is acceptable for the same question.

**Multiple Choice Questions** are those that ask respondents to select one or more alternatives from a set.

**Multiple Cross-sectional Design** is a type of research design where two or more samples are drawn from a population of interest, each sample being only drawn once.

**Multiple Regression Analysis** is a technique for developing mathematical relationships between two or more independent variables and an interval-scaled dependent variable.

**Multiple Response Question** is one where respondents can provide more than one answer, eg by checking more than one item on a list.

**Multiple Time Series Design** is a type of quasi-experimental design where a series of periodic measurements is taken from two groups of test units (an experimental group and a control). The experimental group is exposed to a treatment and then another series of periodic measurements is taken from both groups.

**Multi-variate Techniques** are forms of statistical analysis that are used where there are two or more dependent variables to be analysed simultaneously.

**Mutually Exclusive** Categories are mutually exclusive when objects can be placed into one category and no other.

**Mystery Shopping** is a type of observation study where someone is sent into a business location to act in the role of a customer to evaluate the performance of a business or an employee.

## N

**NA (No Answer)** is the accepted abbreviation to indicate no response to a question because the respondent refused to reply, the question did not apply or it was skipped for some reason.

**National Proportions** are the characteristics of the country where a research project is being conducted.

**Natural Observation** is the observation of behaviour in a natural setting.

**Nested Sample** see multi-stage sample.

**Neutral Value** is usually the mean of all responses to a question and it can be used as a substitute for a missing response.

**NH or NAH (Not at Home)** is the accepted abbreviation to indicate that the respondent is not at home, there is no answer to the doorbell or the telephone.

**Noise** can be used to refer to a random variation in some data due to uncontrolled sources.

**Nominal Group Technique** is a type of face-to-face group discussion that is designed to minimise the group effect (where participants moderate their opinions and go along with a majority view). Participants are asked to consider a subject and then discuss it with one other member (or a small number of members) of the group before presenting it to the whole group.

**Nominal Scale (aka Classified Scale)** is a scale where the numbers act only as data labels (eg 0=male, 1=female or a social security number). The only analysis that can be performed is to observe how frequently each of the scale members occurs in the survey.

**Non-comparative Scale** is one where each object is measured independently of the other objects in the same test and absolute results are obtained.

**Non-metric Correlation** is a correlation measure for two non-metric variables that relies on rankings to compute the correlation.

**Non-metric Data** is data that cannot be analysed statistically, such as that from a nominal or ordinal scale.

**Non-metric Multidimensional Scaling** is a perceptual mapping technique that is based on an analysis of non-metric data such as rank ordering.

**Non-parametric Test** is a test that involves non-metric data (ie data that comes from nominal or ordinal scales).

**Non-probability Sample (aka Non-random Sample)** is a sample in which the selection of units is based on factors other than random chance, eg convenience, prior experience or the judgement of the researcher. Examples of non-probability samples are: convenience, judgmental, quota and snowball.

**Non-random Sample** see non-probability sample.

**Non-response Error** is a type of non-sampling error caused by some sub-groups of the sample responding less than the rest of the sample.

**Non-sampling Error** is any error caused by factors other than sampling error. Examples of non-sampling error are: selection bias, population mis-specification error, sampling frame error, processing error, respondent error, non-response error, instrument error, interviewer error and surrogate error.

**Norm** is the standardised or hypothesised value against which a sample statistic is compared.

**Normal Distribution** is a symmetrical bell-shaped statistical distribution where the mean, the median and the mode all have the same value.

**Normative Data** see measures of central tendency.

**Null Hypothesis** is a statement to be tested that is usually expressed in a negative (or null) way and suggests that no difference or effect is expected. If the statement is disproved, then the null hypothesis is rejected and the alternative hypothesis is accepted.

**Numerical Scale** is a type of scale where the intervals are represented by numbers (as opposed to pictures or words).

## O

**Observation Bias** refers to changes in the behaviour or events under study that are caused by the observation process itself. Personal observation is usually more likely to have observation bias than mechanical observation.

**Observation Check** see distribution check.

**Observation Study** is a research study where data is collected by watching consumer behaviour or events taking place.

**Observed Value** in a cross-tabulation is the number of objects identified by research (which may be different to the expected value).

**Occasion Image** is the impression created, either explicitly or implicitly, of the types of occasion for which a brand is perceived to be most appropriate.

**Omnibus Study** is a periodic study that asks questions on a number of unrelated subjects. The results may be completely or partially syndicated among clients.

**On-air Test** is where research participants are exposed to some advertising in a natural setting, such as their own homes.

**One Group Pre-test - Post-test** is a type of pre-experimental design where a single group of test units is measured, exposed to an experimental treatment and then measured again.

**One-on-ones** see in-depth interview.

**One-shot Case Study** is a type of pre-experimental design where a single group of test units is exposed to an experimental treatment and a single measurement is taken afterwards.

**One-sided Question** is a form of leading question that presents only one aspect of an issue being considered by respondents.

**One Stage Sampling** is a sampling procedure that involves collecting data from all available units in selected sub-groups of a population of interest.

**One-tailed Test** is a test where the null hypothesis is expressed directionally, eg the proportion having a characteristic is more than x%. One-tailed tests are more popular than two-tailed tests because the directional result makes the findings more actionable.

**One-Way Mirror** is a sheet of glass which, when viewed from one side, appears to be a normal mirror and when viewed from the other side, is transparent. It is used in Marketing Research to observe respondents without their being constantly reminded that they are being watched, although they have to be advised by the researcher that they are being observed. A one-way mirror is often used in focus group discussions.

**Online Discussion Group (aka Virtual Group)** is where a number of pre-recruited research participants are in simultaneous electronic contact (via a PC) and they are discussing a particular subject. The discussion is guided by a moderator and the participants are unable to see each other, therefore no visual signals can be communicated although anonymity can be assured.

**Open-ended Questions (aka Unstructured Questions)** are questions that do not have a set of anticipated responses listed on the questionnaires. The interviewer records the respondent's verbatim response. When the survey is interviewer-administered, the respondent is encouraged to respond completely and freely with the use of probing and clarifying techniques. These questions may also be self-administered.

**Opening Questions** are the questions at the beginning of a questionnaire and they should be interesting, simple and non-threatening to gain the confidence and co-operation of respondents.

**Opinion** is the verbal expression of an attitude and is not directly verifiable by research data.

**Opinion Poll** is a study that collects views of the public on matters of broad interest.

**Optimum Allocation** is the allocation of sample units to strata so as to maximise the statistical efficiency of the survey.

**Order Bias (aka position bias or sequential bias)** occurs when respondents tend to favour objects because of their position in a list or sequence. The objects at the beginning and at the end of a list can be remembered more than those occurring in the middle. Usual practice is to rotate a list to eliminate this type of bias.

**Ordinal Scale (aka Ranked Scale)** is a scale where the numbers assigned represent relative amounts of the characteristic being measured, eg first or second in a ranking. The distances between intervals in an ordinal scale are usually not equal - ie the difference between the values of first and second is not the same as the difference between third and fourth in a ranking.

**Osgood Scale** see semantic differential scale.

**OTS - Opportunities to See** see frequency.

**Outliers** are extremely small or extremely large values in a set, compared with the mean of all values in the set.

**Overclaiming** is a phenomenon where research participants make claims that are not factually correct. There are many reasons for this behaviour including; best light phenomenon and social group norms.

## P

**Package Test** is a test that measures consumer reactions to a package or label.

**Paired Comparison Evaluation** is a study or part of a study in which respondents compare two or more test stimuli (eg products, concepts or labels etc) according to some criterion such as preference.

**Paired Comparison Scale** is a type of comparative scale where respondents are presented with two alternatives and they are asked to choose which they prefer (according to a criterion).

**Paired Depth** see friendship pair interview.

**Pairwise Deletion** is a treatment of survey data where only the completed questions are analysed, ie partially complete responses are not excluded from the analysis.

**Pan-cultural Analysis** is the collection of data from different countries (or cultural units) and analysis of the aggregated data.

**Panel** see consumer panel.

**Panel Conditioning** is a form of systematic error that occurs when panel participants change their behaviour (that is being observed) as a result of being part of the panel.

**Pantry Check** see home audit.

**Parameter** is a summary measure used to describe a group of people or objects that is based on data from all units in the group.

**Parametric Test** is a test that involves metric data (ie data from interval or ratio scales that can be analysed statistically).

**Partial Correlation Coefficient** is a statistic that is calculated to measure the association between two variables after controlling (or adjusting) for the effects of one or more additional variables.

**Participant** is a general term covering anyone who is involved in a research study and not just someone who is interviewed, eg in an observation study or a group discussion.

**Pearson Coefficient** see product moment correlation coefficient.

**Penetration** is the proportion (usually expressed as a percentage) of a population of interest that has accepted a product or an idea in some way.

**People Meter (aka Audimeter)** is an electronic device attached to a TV set that monitors which programmes are watched by whom.

**Perceptual Mapping** is an analysis technique that is designed to demonstrate how consumers view a concept or brand relative to the alternatives. Perceptual maps can be constructed from different types of analysis, eg Factor analysis, correspondence analysis and multi-dimensional scaling.

**Periodicity** is a cyclical variation in a characteristic being measured. Periodicity can lead to a bias in systematic sampling when the period of the cycle coincides with the sampling interval being used.

**Personal Interview** is when respondents are questioned face-to-face by an interviewer. The interviewer may cover any topic. The personal interview can be conducted in the respondent's home, place of business or at a central location facility. These interviews can be long or short depending on the topic to be discussed. Exhibits are often used in this approach to aid the respondent in answering questions.

**Personalisation Technique** is a projective technique where participants are asked to ascribe "personality-type" traits or characteristics to an object or idea.

**Personal Observation** is when human beings record the behaviour of interest or events taking place.

**Persuasion** is a copy testing measure intended to indicate the motivating ability of an ad, by subtracting the proportion of respondents choosing the test brand prior to ad exposure (or in an unexposed control group) from the proportion choosing it after exposure. It is the net shift in brand choice from unexposed to exposed.

**Pictograph** is a type of graph that uses pictures or symbols to display the data.

**Pictorial Scale** is a type of scale where the intervals are represented by a sequence of pictures or diagrams, eg smiling faces (as opposed to numbers or words).

**Pilot Testing** see pre-testing.

**Placement Test** see home use test.

**Plausibility Sample** is a type of non-probability sample where the sample is chosen because it appears plausible that sample units are representative of the population of interest, although there is no evidence to support this assumption.

**Population of Interest (aka Target Population or Ideal Population)** is the group about whom the researcher wants to know more and from whom a sample will be drawn.

**Population Mis-specification Error** is a type of non-sampling error caused by incorrectly defining the population of interest for a survey and either excluding or including certain types of respondents, eg limiting a survey to previous consumers of a product (and not asking the views of those who have not tried it).

**Pop-up Survey** is a questionnaire that appears on the screen of a web site visitor. The term can also be used to refer to an invitation to participate in a survey. Pop-up surveys are usually triggered by a mechanism of some form, eg after a pre-defined period of time, or after so many visitors to a web page.

**Position Bias** see order bias.

**Postal Survey** see mail survey.

**Post-test** is an evaluation of advertising after it has been run in the media.

**Post-test Only Control Group Design** is a type of true experimental design where test units are randomly allocated to an experimental group and a control group. The experimental group is exposed to a treatment and both groups are measured afterwards.

**Power** is the probability that a hypothesis testing procedure will lead to a rejection of a null hypothesis that is false. The power is one minus the probability of committing a Type II error, ie  $1-\beta$ .

**Precision Level** is a measure of the spread of a confidence interval. The narrower the interval, the higher the level of precision.

**Pre-coded Questions** see Closed-ended Questions.

**Pre-codes** are numbers printed on a questionnaire for data entry and tabulation purposes. For closed-ended questions, the numbers can be circled as the answer.

**Pre-coding** is the assignment of codes (coding) before the fieldwork of a survey is carried out.

**Predictive Validity** is the degree to which a measured marketing phenomenon at one point in time is able to predict another marketing phenomenon at a future point in time.

**Pre-experimental Design** is an experimental design where randomisation procedures are not used to control for external variables. Examples of pre-experimental designs are: one shot case study, one group pre-test/post-test and a static group.

**Preference Test** is a test where research participants are asked to compare a number of products or services and express their preferences.

**Pre-measurement Error** see pre-testing bias.

**Pre-recruited Participants** are consumers or business professionals who are contacted (by telephone, mail or in person etc) and invited to participate in a research study scheduled for a future date and time, provided they qualify. People who agree and are eligible are often compensated for their participation in the research.

**Pre-selected Sample** see pre-recruited participants.

**Pre-teen (aka Tweenager or Tween)** is a young person aged around 8/9 to 12, who does not consider themselves to be a child, but they are not yet a teenager.

**Pre-test** can be used to refer to two different activities. A pre-test is where a questionnaire is tested on a (statistically) small sample of respondents before a full-scale study, in order to identify any problems such as unclear wording or the questionnaire taking too long to administer. A pre-test can also be used to refer to an initial measurement (such as brand or advertising awareness) before an experimental treatment is administered and subsequent measurements are taken. In this sense a pre-test can also be called a base line, benchmark or pre-wave.

**Pre-testing (aka Pilot Testing)** is when the questionnaire is tried on a (statistically) small group of respondents to identify any unforeseen problems such as the wording or flow of the questions.

**Pre-testing Bias (aka Pre-measurement Error or Main Testing Effect)** is when the pre-testing in an experiment has a systematic effect on the main experimental results, regardless of what happens between the measurements.

**Pre-test Manipulation Interaction Bias (aka Interactive Testing Effect)** is present when the pre-testing in an experiment heightens participants' sensitivity and makes them behave in a systematically different way during the experiment that prevents the results being generalised to a population of interest (ie it reduces external validity).

**Pre-test - Post-test Control Group Design** is a type of true experimental design where test units are randomly allocated to an experimental group and a control group. Both groups are measured before and after the experimental group is exposed to a treatment.

**Pre-wave** see base line.

**Pricing Research** is research that aims to determine how demand for a product or service will vary with changes in price.

**Primary Data** are data that are collected specifically for a current research project.

**Primary Purchaser** is the person responsible for 50% or more of the household grocery purchases.

**Probability Proportionate to Size** is an approach used in cluster sampling where the clusters have widely differing numbers of units in them. Clusters are selected with a probability proportional to the number of units in them. The units within each selected cluster are then sampled with a probability inversely proportional to the number of units, so that the probability of selecting each unit from the selected clusters is equal.

**Probability Sample** is a sample where all units in the population of interest have a known and non-zero chance of being selected. Examples of probability samples are: simple random, Systematic, Stratified and Cluster.

**Probing** is the asking of additional questions to encourage a respondent to enlarge on a particular answer or opinion so that their answer can be further understood by the researcher.

**Processing Error** is a type of non-sampling error caused during the processing of the data. Examples include the incorrect entry of data and incorrect assignment of values.

**Product Image** is the impression created about the characteristics of a product or service. These may be perceived or real attributes and they can be conveyed through communications, packaging or personal experience.

**Product Moment Correlation Coefficient (r) (aka Correlation Coefficient)** is a statistic that is calculated to determine whether a linear relationship exists between two metric variables and it takes values between -1 and +1 (depending on the degree of the relationship). A negative value indicates that the variables move in opposite directions and a positive value indicates that they move in the same direction. A value of 0 indicates that there is no linear relationship (although there may be a non-linear relationship).

**Product Placement Test** can refer to two types of tests: a home use test, where participants evaluate products in their own homes or in a natural usage context. It can also refer to a test where products are placed on retail shelves to observe the rate of sale.

**Professional Respondent** is one who regularly attends group discussions, whose views may well not be typical of the intended respondents.

**Profile** is a general term that covers the description of a population of interest (or a sub-group) according to certain characteristics. For example a demographic profile describes consumers in terms of their age, gender, life-cycle stage and occupation.

**Projective Techniques (aka Enabling Techniques)** are a form of disguised questioning that encourage participants to attribute their feelings, beliefs or motivations to another person, object or situation. Examples of projective techniques are word association, sentence completion and thematic apperception tests.

**Prompted Awareness (aka Aided Awareness)** is the percentage of respondents who claim to have seen something (eg a brand or an advert) after having been shown some form of stimulus material.

**Prompting** is where respondents are made aware of the possible answers to questions by an interviewer either reading them out or showing some material during the research.

**Prompt Material** is any material that is shown to participants in research projects.

**Proportionate Stratified Sample** is a type of probability sample where the probability of a unit being selected from a stratum is proportional to the number of units in the stratum.

**Proposal** is an outline (usually in writing) of how marketing research data could be collected and used to solve a specific problem. Proposals are normally written by research suppliers and they usually are divided into the following sections: background, objectives, methodology, costing and timings.

**Proprietary Techniques** are research techniques that are considered to be the intellectual property of a research supplier.

**Pseudo Research** is research that is carried out for reasons other than to reduce the risk in a resource-allocation decision.

**Psychodrawing** is a projective technique where participants are asked to attach abstract notions such as colours, shapes or symbols to objects.

**Psychographics** are quantified psychological profiles of individuals, based on their attitudes and behaviour.

**Purchase Intentions** are a measure of respondents' attitudes towards buying a particular product or service.

**Pupilometer** is a device used to measure the dilation of a participant's pupil in response to a visual stimulus.

**Purchase Panel** see consumer panel.

**Purposive Sample** see quota sample.

## Q

**Qualified Refusal** is where a respondent is eligible to participate in the research study, but for some reason refuses or is unable to complete the study.

**Qualified Respondent** see eligible respondent.

**Qualitative Research** involves the use of unstructured exploratory techniques (such as group discussions and in-depth interviews) that are based on statistically small samples in order to understand a problem further.

**Quality Control** refers to a set of procedures to ensure that interviewers follow the instructions provided by the sampling plan.

**Quantitative Research** involves the collection of (statistically) large samples of quantitative data and usually some form of statistical analysis. Quantitative research is often used to substantiate the findings from qualitative research.

**Quasi-experimental Design** is a type of experimental design that applies some but not all of the procedures of a true experiment and lacks full experimental control. Examples of quasi-experimental designs are: time series and multiple time series.

**Questionnaire** a structured technique for collecting data consisting of a series of questions.

Questionnaires can be self-completion or administered by an interviewer, they can be completed orally or in writing.

**Questionnaire Administration** is the process of asking questions and recording the answers. A self-administered questionnaire is completed by the respondent and not administered by an interviewer.

**Quintiles** are a set of four values that divide the total frequency into five equal parts.

**Quota** is the total number of interviews to be completed by a data collection company. Quotas may also be defined by market, by product, by interviewer or by rotation etc.

**Quota Sample (aka Purposive Sample)** is a type of non-probability sample where the required numbers of units with particular characteristics are specified.

**Quota Sheet** is a form used to track completed interviews in a study. It is normally used by the supervisor.

**Q-Sort Scaling** is a type of comparative scale where respondents are asked to sort between 60-90 objects (usually) into piles according to some criteria. It is a useful technique for sorting relatively large numbers of objects quite quickly.

## R

**Random Digit Dialling** is a method of reducing sampling frame error and involves the use of randomly generated numbers for a telephone survey, instead of relying on telephone directories or other lists of numbers that may exclude certain types of consumers.

**Random Error** is an error that affects measurements in an unpredictable way due to random chance changes or differences.

**Randomisation** involves the use of random chance to assign experimental units to different treatments.

**Randomised Block Design** is a type of statistical experimental design where units are blocked (or grouped) on the basis of one external variable to ensure that the experimental and control group are matched on that variable.

**Random Sample** see probability sample.

**Random Sample** see simple random sample.

**Random Sampling Error** is the error caused by a particular sample not being representative of the population of interest due to random variation.

**Range** is a measure of variability that is the difference between the largest and the smallest value in a set of values.

**Ranked Scale** see ordinal scale.

**Rank Order Scaling (aka Ranking)** is a type of comparative scale where respondents are presented with a set of objects and they are asked to rank them first, second, third etc according to a criterion. Each rank is only used once.

**Ranking** see rank order scaling.

**Rating** is a procedure used to evaluate a concept, product, advertisement etc where respondents are asked to select one response from a scale to indicate the degree of their opinion.

**Rating Scale** see scales.

**Ratio Scale** is a type of interval scale with a zero point, which represents an absence of the characteristic being measured. The data from ratio scales can be analysed statistically (which is not possible with data from nominal or ordinal scales).

**Raw Data** refers to data before analysis or weighting.

**Reach** is the proportion of a specified television audience or universe who have been contacted by an advert at least once.

**Reactive Bias** is a type of experimental error where participants in an experiment change their normal behaviour as a direct result of the experimental conditions.

**Readership** is the number of people who read a particular publication and it is not necessarily related to its circulation.

**Recall Interview** see call-back.

**Recall Measurement (aka Recall Test)** is a type of post-test that investigates respondents' ability to recall something they may have read, heard or seen. Recall measurements can be taken without or with the benefit of some form of stimulus material - see spontaneous and prompted awareness.

**Recall Test** see recall measurement.

**Recommendations** are suggested courses of action or an assessment of the relative strengths and weaknesses of particular courses of action.

**Reconvened Group Discussion** refers to two group discussions with the same participants that are separated by a period of time.

**Recruiting** is the inviting of selected participants (who meet specific eligibility criteria) to take part in a research project. The work is undertaken by a field recruiter (often just referred to as a recruiter).

**Referral Sample** see snowball sample.

**Refusal** refers to respondents who will not participate in a research project. Refusals are tracked at various stages within a research project - see initial refusals and qualified refusals.

**Refusal Rate** is the percentage of contacted people who decline to co-operate with the research study.

**Regression Analysis** is the analysis of the relationship between a dependent variable and one or more independent variables. Its purpose is to determine whether a relationship exists and the strength of the relationship. It is also used to determine the mathematical relationship between the variables, predict the values of the dependent variable and control other independent variables when evaluating the effect of one or more independent variables.

**Related Recall** is a copy testing measure that is intended to quantify a commercial's attention-getting ability. Respondents are interviewed (usually by phone) within a specific period after exposure to the advertising medium and they are asked questions to determine the proportion of people who watched a programme and remembered seeing the particular commercial.

**Relevance** is a term used to describe whether or not some advertising or a brand proposition shares some fundamental values with a particular group of consumers.

**Reliability** is the extent to which a research process can be repeated and produce consistent results (ie it is free from random error).

**Repertoire** refers to the range of different brands used by consumers.

**Representative Sample** is a sample that contains units in the same proportion as the population of interest.

**Research Brief** see Brief.

**Research Design** is the framework for conducting a market research project that specifies how information will be collected and analysed to answer the questions at hand.

**Research Effect** is a general term that suggests the research itself may be contributing to a change in the data.

**Residual** is the difference between an observed and a predicted value.

**Respondent** is the person who is interviewed by a researcher.

**Respondent Error (aka Response Bias)** is a type of non-sampling error caused by respondents intentionally or unintentionally providing incorrect answers to research questions. Possible sources of respondent error can be: inability error, best light phenomenon, social group norms or selection bias.

**Respondent Fatigue** is when respondents' are disinclined to continue participating in a research project and it can lead to invalid responses (usually towards the end of the research project).

**Respondent Fee** see incentive.

**Respondent Level Data** is data from an individual respondent.

**Response Bias** see respondent error.

**Response Latency** is the speed with which a respondent provides an answer.

**Response Rate** is the percentage of all attempted interviews that are completed.

**Response Style** is a systematic tendency of respondents to select particular categories of responses regardless of the content of the questions.

**Resulting Sample** is the sample that has been achieved in a particular research project (which may be different to the intended sample).

**Role Playing** is a projective technique where participants are asked to play the role or assume the behaviour of someone else.

**Rotation Procedure** is the process of asking questions or showing material to respondents in a different order for every interview according to a set of instructions. This process minimises the risk of order bias (ie respondents favouring objects because of their position in a list).

## S

**Sagacity Segmentation** is a means of segmenting a population of interest using life-cycle stage, income and occupation variables.

**Salience** is a general term that can be used in two similar ways: (1) The importance a brand holds for different groups of consumers. It is an indication of emotional closeness to, or distance from a brand. (2) The extent to which a brand comes readily to mind (eg first mentioned in an answer to an awareness question), or the most frequently mentioned in connection with a set of associations.

**Sample** is a sub-group of the population of interest that has been selected for study.

**Sample control** is the efficiency and the effectiveness of the sampling approach at reaching the units specified in the research brief.

**Sample Definition** is a description of the ideal (or the intended) sample for a research project.

**Sample Selection Error** occurs in experiments when a bias is introduced into the way in which experimental units are assigned to groups.

**Sample Size** is the number of sample units to be included in the sample.

**Sample Unit** an individual member of the sample.

**Sampling Error** is the error in a survey caused by using a sample to estimate the value of a parameter in the population.

**Sampling Frame** is a list of the population of interest that is used to draw the sample in a survey, eg a telephone directory or a list of members of a profession.

**Sampling Frame Error** is a type of non-sampling error in a survey caused by a sampling frame containing either more or less of a particular type of potential respondent, compared with the population of interest.

**Sampling Instructions (aka Sampling Plan)** are a set of instructions given to interviewers concerning the selection of participants for a research project. These instructions must be followed exactly to ensure accurate respondent selection.

**Sampling Interval** is the size of the step between selected units in systematic sampling.

**Sampling Plan** see sampling instructions.

**Sampling without Replacement** is when sample units cannot be included more than once in the sample.

**Sampling with Replacement** is when sample units can be included more than once in the sample.

**Saturation Survey** is a survey where as many members as possible of a population of interest are contacted.

**Scale Accuracy** is the extent to which a scale is valid and reliable, ie free from bias and random error.

**Scale Reliability** is the degree to which a scale is free from random error and can reproduce consistent results.

**Scales (aka Rating Scales)** are measurement devices that allow respondents to report the degree of their opinions. Scales are usually in the form of statements or numbers. Pictures may also be used - see pictorial scale.

**Scale Transformation** is the manipulation of scale variables to ensure comparability with other scales and enable comparisons to be made. The most frequently used scale transformation procedure is standardisation.

**Scale Validity** is whether a scale measures what it is intended to measure. A scale may be biased by the way in which a question is worded and therefore the results it produces are not valid.

**Scanner Data** is the data recorded by bar-code scanners.

**Scanner Panel** is a type of consumer panel where participants use a bar-code scanner to record purchases.

**Scatter Diagram (aka Scattergram)** is a plot of the values of two variables for all the cases or observations.

**Score** is a numerical value assigned to a response or an observation.

**Screening** is the procedure of asking specific questions to determine whether respondents are eligible to participate in a particular research study. This is done at the very beginning of an interview.

**Screening Questions** are the questions at the beginning of an interview or questionnaire to ensure that a potential respondent is eligible for the survey.

**Secondary Data** are data that have already been collected and published for another research project (other than the one at hand). There are two types of secondary data: internal and external secondary data.

**Segmentation** is the process of dividing markets into groups of consumers who are similar to each other, but different to the consumers in other groups.

**Selection Bias** is a type of non-sampling error where the sample units are selected for treatment in a particular way that produces a different profile to the population. Selection bias can be introduced by researchers and/or by respondents (putting themselves into groups to which they aspire to belong, but they do not currently belong).

**Self Administered (aka Self Completion)** is where a respondent completes a survey without the assistance or involvement of a researcher, eg a self-completion questionnaire sent through the mail.

**Self Completion** see self administered.

**Self-effacing Situation** is where the true answer to a question does not reflect favourably on the respondent or it contravenes a social group norm. In order to avoid bias in the data, one should try to avoid putting respondents in self-effacing situations if possible.

**Self-selection Bias** is a type of non-sampling error that occurs when respondents who chose to participate in some research are systematically different to the intended sample. This type of bias is caused by some types of respondent replying to a survey invitation more than others.

**Semantic Differential Scale (aka Osgood Scale)** is a type of categorical, non-comparative scale with two opposing adjectives separated by a sequence of unlabelled categories, eg Good 1 2 3 4 5 6 7 Poor.

**Semiotics** is the theory of signs and symbols in language and the meanings they convey. In research it is used to identify and evaluate the true meaning behind consumers' linguistic responses, to decode their cultural frames of reference and behaviours. It employs specialist techniques to overcome the problems of conditioned or expected responses (Social Group Norms) and provides a deeper understanding of consumers' motivations.

**Semi-structured** An interview or questionnaire is semi-structured when many or all of the questions are open-ended, allowing the interviewer to clarify and probe the answers given by respondents.

**Sensitivity** is the extent to which a research technique can identify differences between sub-groups of participants.

**Sensitivity Panel** is a type of focus group where the same participants are convened several times over a period of time. The subsequent discussions may or may not be on the same subject.

**Sensory Test** is an examination of some or all aspects of products that are perceived by the five senses.

**Sentence Completion** is a projective technique where participants are asked to complete a number of incomplete sentences that are provided by the researcher.

**Sequential Bias** see order bias.

**Sequential Monadic Evaluation** is where two or more products or ideas are each evaluated on their own, one after the other. The sequence is usually rotated to minimise order bias (ie respondents favouring an object or idea because of its position in a list).

**Sequential Sampling** is where the sample units are drawn one by one or in groups and the results of the drawing at any stage decide whether sampling is to continue.

**Share of Mind** is the extent to which a particular brand will be thought of in relation to a specific product category.

**Share of Voice** is the percentage of all promotion in a specific product category that is accounted for by a particular brand.

**Shelf Check** see distribution check.

**Show Cards** are a type of prompt material in the form of cards with images that are shown to participants in research studies.

**Significance Level** (represented by  $\alpha$ ) is the maximum probability of rejecting a true null hypothesis (or committing a type I error) and it is equal to one minus the confidence level.

**Significance Test** is an analysis of sample data to determine whether the data supports a hypothesis about the population from which it was drawn.

**Simple Correlation** see product moment correlation coefficient.

**Simple Random Sample (aka Random Sample)** is a type of probability sample where all units in a population of interest have an equal, known and non-zero chance of being selected.

**Simulated Test Market** is a type of laboratory experiment that aims to imitate real life, where respondents are selected, interviewed and then observed making or discussing their purchases. Simulated test markets can lead to mathematical models used to forecast factors such as awareness, trial, sales volumes, impact on other products etc.

**Simulation** is a model composed of mathematical and logical relationships designed to represent an actual system and indicate how the real system would react in various circumstances.

**Single Cross-sectional Design** is a type of research design where one sample is drawn from the population of interest only once.

**Single Item Scale** is a measurement scale that gathers opinions about an object on a single dimension.

**Single Product Test** see monadic test.

**Single Response Question** is one that asks respondents for only one answer.

**Single Source Data** is data on a variety of behavioural habits from consumers in the same households, such as TV watching, reading and shopping habits.

**Situation Analysis** is part of the marketing planning process that deals with understanding the environment and the market, (by identifying opportunities and threats) and assessing a firm's competitive position (by identifying its strengths and weaknesses).

**Skewness** refers to the symmetry of a distribution. A skewed distribution is one where the mean, the median and the mode have different values, whereas in a symmetrical distribution they all have the same value.

**Skip Pattern (aka Branching Question)** is a question used to guide an interviewer through a survey to different questions (ie skipping some questions), depending on the answers given.

**Smiling Face Scale** is a type of pictorial scale that consists of a balanced series of facial expressions that are often used in children's research to obtain satisfaction ratings.

**Smoothing** is the process of removing fluctuations in an ordered series of data.

**Snowball Sampling** is a type of non-probability sampling where initial respondents are selected at random and subsequent respondents are then selected by referrals or information from the earlier respondents.

**Social Class** see socio-economic groups.

**Social Desirability** is the tendency for respondents to give answers that are socially desirable or acceptable, that may not be accurate.

**Social Grades** see socio-economic groups.

**Social Group Norms** are expected overt modes of behaviour that constitute culturally acceptable ways of behaving in specific situations. Participants in market research projects may well bias their responses in order to conform to expected behaviour.

**Social Indicators** are statistics that describe social rather than economic variables (eg birth rate, life expectancy at birth and doctors per thousand of the population).

**Socio-economic Groups (aka Social Grades or Social Class)** are a method of dividing a population of interest into groups usually based on income and occupation of the head of household, although other variables can also be used. The ESOMAR social grades (A, B, C1, C2, D, E1, E2 & E3) are based on the terminal education age and occupation of the main income earner.

**Socio-economic Information** is information that is based on the occupation and income level of the head of household.

**Solomon Four-Group, Six-Study Design** is a type of true experimental design where test units are randomly allocated to two experimental groups and two control groups. One of the experimental groups and one of the control groups is measured. Both experimental groups are then exposed to a treatment. Afterwards both experimental and control groups are measured. Six measurements are taken in all and the design aims to account for pre-testing bias and pre-test manipulation interaction bias.

**Specialist Research** see expert opinion survey.

**Split Ballot Technique** is a procedure where a sample is divided into two halves and each receives a slightly different questionnaire.

**Split Run** is a technique in advertising research that involves placing an advertisement in one form in half of the copies of a given publication and in another form in the other half. The purpose is to compare the relative effectiveness of the two forms of advertisement.

**Spontaneous Awareness (aka Unaided Awareness or Unaided Recall)** is a measure of how many respondents can quote a brand name without any assistance on behalf of the interviewer.

**Spurious Correlation** is when two variables appear to change together but there is no causal relationship between them.

**Standard Deviation (aka Standard error of the mean)** is a measure of variability (or dispersion) of a distribution and it is equal to the square root of the variance.

**Standard Error** is a measure of the amount of sampling error present and it is equal to the standard deviation.

**Standard Error of the Mean** see standard deviation.

**Standard Industrial Classification (SIC)** is a means of classifying businesses based on the products or services they provide.

**Standardisation** is a scale transformation procedure that involves manipulating data from different types of scales so that they can then be compared. It consists of subtracting the sample mean from each score and dividing by the standard deviation.

**Stapel Scale** is a type of categorical, non-comparative scale that is similar to a semantic differential scale except that instead of having two opposing adjectives, there is only one adjective in between a sequence of positive and negative categories. Respondents indicate how relevant each single characteristic is to an object in question.

**Static Group** is a type of pre-experimental design where there are two groups; an experimental group and a control group. The test units are not assigned randomly between both groups. The experimental group is exposed to a treatment and afterwards, both groups are measured.

**Statistical Design** is a type of experimental design that allows for the statistical analysis and control of external variables. Examples of statistical design are: randomised blocks, Latin square and factorial design.

**Statistical Efficiency** involves a comparison of the sampling errors generated by different sampling procedures. A statistically efficient sampling procedure is one that produces fewer sampling errors for the same sample size than other procedures.

**Statistical Significance** refers to whether some research results genuinely reflect a population of interest in some way or whether the results could occur by chance. Statistical significance is determined by comparing the research results with the values defined by the confidence interval.

**Stimulus Material** see prompt material.

**Stochastic Process** is one where there is an element of random variation.

**Story Boards** are a set of boards that illustrate the main points of a proposed TV commercial, details of dialogue and sound effects are also included.

**Story Completion** is a projective technique where participants are asked to provide the conclusion to a number of incomplete stories provided by the researcher.

**Stratified Sample** is a type of probability sample where the units in a population of interest are divided into mutually exclusive and collectively exhaustive strata and a (proportionate or disproportionate) random sample is drawn from each stratum.

**Stratum Chart** is a set of line charts where the data are successively aggregated over the series. The magnitudes of each variable are represented by the areas between the line charts.

**Strike Rate** see incidence.

**Structured Observation** is a form of observation study where the behaviour of interest and the method of observation are clearly specified in advance of the study.

**Structured Questions (aka closed questions)** are those where the choice alternatives for respondents are all specified.

**Stub** is a row heading in banner format tabulations. It is usual practice to have the dependent variables as stubs.

**Sub Sample** is a sample of a sample, which may or may not be selected using the same approach as the original sample.

**Sugging** is sales under the guise of research and it is one of the reasons why potential participants in market research projects are reluctant to take part.

**Surrogate Error** is a type of non-sampling error where someone other than the intended respondent participates in the research and this produces a systematic difference between the resulting sample and the intended sample.

**Surveys** involve a (statistically) large number of interviews with respondents, using pre-designed questionnaires.

**Syndicated Research** is where the findings and costs of a research project are shared (partially or fully) among a number of clients.

**Synectics** is a type of brain storming where the participants are from a variety of different backgrounds are asked to solve a specific problem. The approach is intended to increase the creativity of ideas produced.

**Systematic Error** is an error that affects measurements in a consistent way.

**Systematic Sample** is a type of probability sample where every  $n$ th unit is included in the sample from a list of the population of interest. The value of  $n$  is calculated by dividing the number of units in the population of interest by the required sample size.

## T

**Tab (aka Tabulate)** is the process of counting the various responses to each question asked in a survey.

**Tab Houses** are specialist suppliers of research data and simple analysis.

**Tab Plan** see code and tab plan.

**Tabulation** is a frequency count of each question's answers.

**Tachistoscope** is a device that allows a participant to look at some stimulus material (eg packaging or a brand name) for a pre-defined brief period of time. The aim is to investigate the stand out and/or recognisability of the material under investigation.

**Tally Sheet** is a form used by each interviewer on a job to track the results of each contact made for a study, whether by phone or in person. This form can also be referred to as a "call record sheet", "contract record", "dialling records" or a "tick sheet". A new tally should be used every day of a job by each interviewer.

**Target Population** see population of interest.

**Taste Test** is where participants evaluate the taste of a product, either on its own or compared with other products. Taste tests are often conducted "blind" where brand names, packaging and other identifying items are removed. Taste tests are usually conducted at a central location, although they can be carried out in participants' homes.

**T Distribution** is a symmetrical bell-shaped distribution that is used for testing samples smaller than 30.

**Teleology** is a consequential approach to evaluating ethics whereby the degree of ethicalness depends on the outcomes or actions that result from the decisions (rather than the decisions themselves).

**Telephone Interview** is where participants are asked survey questions over the telephone.

Telephone interviewing is usually conducted from a central telephone interviewing facility.

**Telescoping** is when respondents mis-remember when an event occurred, usually by stating that it occurred more recently than it really did.

**Television Rating (TVR aka Gross Rating Point)** = (reach \* frequency) One TVR represents 1% of a specified television audience or universe seeing an advert at least once. (At extremes, television

ratings can be made from either many people seeing an advert only once, or just a few people seeing an advert many times.)

**Temporal Ordering** is when a variable X (or a change in X) must occur before the variable Y (or a change in Y) is observed and it is one of the three conditions that have to be met to infer a causal relationship.

**Terminate** is when an interview is stopped before completion. This may occur for one of three reasons: (1) The respondent gives a non-qualifying response and the interviewer is instructed to TERMINATE AND TALLY. (2) The interviewer decides to stop the interview because of a language problem or disability on the part of the respondent. (3) The respondent refuses to complete the entire survey.

**Termination Rate** is the number of eligible respondents who do not complete an interview once started.

**Test Marketing** is a type of controlled experiment conducted in a carefully selected geographical area to understand the impact of a marketing programme on the sales or profits of a product or service.

**Test-retest Reliability** is a method of estimating the reliability of a test by repeating the measurement using the same scaling device under conditions that are judged to be similar.

**Test Statistic** is a measure (derived from a formula) of how close the sample has come to the null hypothesis.

**Theatre Test** is an advertising testing procedure where participants are exposed to test and control commercials in the context of a TV programme or a film.

**Thematic Apperception Test TAT (aka Cartoon Test or Bubble Test)** is a projective technique where participants are presented with one or more pictures or cartoons that depict a situation. They are asked to suggest what will happen or what one character may be saying or thinking in response to another character or a situation.

**Third Person Technique** is a projective technique where participants are presented with a situation and are asked to suggest the feelings and attitudes of other people to the situation.

**Time Series Design** is a type of quasi-experimental design where a series of periodic measurements is taken from one group of test units, followed by a treatment, then another series of measurements.

**Top Box Score** is the percentage of respondents who gave the highest or top score on a scale. Sometimes the top two or three scores may be aggregated to calculate a top boxes score.

**Topic Guide** see discussion guide.

**Top-of-mind Awareness** see front-of-mind awareness.

**Total Error** is the difference between the true value of a parameter in the population and a value derived from a survey. Total error is the sum of the sampling and non-sampling errors in a survey.

**Topline Report** is a brief summary of the main findings of a study.

**Trace Analysis** see indirect observation.

**Tracking Study** is a study that provides periodic updating of company and competitor performances on criteria other than sales.

**Trade Off Analysis** see conjoint analysis.

**Traffic Count** is the measurement of a flow of people or vehicles past a particular point and it can be used in observation studies.

**Transcribing** see data entry.

**Treatment** refers to the manipulation of one or more independent variables during an experiment.

**Triad** see friendship pair interview.

**Triangle Group** is a focus group with three participants who each have differing viewpoints.

**Triangular Product Test** is a type of blind test that involves three products where two are similar and the third is different. Participants are asked to test all three and indicate which two are similar to each other. The purpose of the test is to determine the degree to which participants can differentiate between the similar products and the different one.

**True Experimental Design** is a type of experimental design where the researcher randomly assigns test units and treatments to the experimental groups. Examples of true experimental designs are: pre-test - post-test control group, post-test only control group and a Solomon four group, six-study design.

**T-Scope** see tachistoscope.

**T Test** is a statistical test that compares a sample mean with a hypothesised mean for a population of interest. The test is appropriate for small sample sizes (less than 30) or when the population variance is unknown. The test is also designed for comparing the differences between two means.

**TVR** see television rating.

**Tweenager** see pre-teen.

**Two Stage Sampling** is a simple case of multi-stage sampling where a sample of units is drawn from selected sub-groups of a population of interest. (Whereas with one stage sampling, data is collected from all available units in the selected sub-groups.)

**Two-tailed Test** is a test where the null hypothesis is expressed in terms of a characteristic existing or not existing, eg a value is 50%. From the results of the test, it is not possible to determine on which side of the test value the true answer lies, therefore directional (or one-tailed tests) are used more often.

**Two Way Classification** is the classification of a set of observations according to two criteria.

**Type I Error** is a mistake that is made when a researcher rejects the null hypothesis and accepts the alternative hypothesis, when the null hypothesis is correct.

**Type II Error** is a mistake that is made when a researcher accepts the null hypothesis and rejects the alternative hypothesis, when the null hypothesis is incorrect.

## U

**Unaided Awareness** see spontaneous awareness.

**Unaided Recall** see spontaneous awareness.

**Unbalanced Scale** is a scale where the number of favourable and unfavourable categories is not the same.

**Unbiased Questions** are those that are worded so that they do not influence respondents' opinions.

**Undisguised Observation** is the observation of behaviour or events with participants' knowledge.

**Unforced Rating Scale** is a scale that allows a neutral or no opinion choice.

**Univariate Techniques** are forms of statistical analysis that are used where there is a single measure of each variable or where each variable is measured in isolation of other variables.

**Unstructured Questions** see open-ended questions.

**Unstructured Observation** is a form of observation study where the behaviours of interest and/or the method of observation are not clearly specified in advance of the study.

**Unstructured Questions (aka open-ended questions)** are those that do not have any suggested alternatives and respondents answer in their own words.

**Unwillingness Error** is where respondents are reluctant to answer a particular question. This may be because too much effort is required, the situation or context is not seen as appropriate for disclosure, no legitimate purpose or need is seen for the information requested or the information is seen as sensitive.

**Usage & Attitude Surveys (U&A)** are research projects that aim to describe users (and non-users) of a product, together with their attitudes towards the product.

**User Image** is the impression created, either explicitly or implicitly, about the type of person who is likely to be a user of a brand. User images can be defined demographically, by life stage, lifestyle or attitude.

**Utility** is the worth or value of each level of each variable relative to the other levels.

## V

**Validation (aka Back-checking)** is the subsequent re-contacting of respondents in a survey to check that the proper procedures have been followed, eg the respondent was qualified to be included in the survey, the responses recorded were accurate or even that the interview actually took place. Validation can be performed by the data collection company and/or the client, in person, by telephone or by mail.

**Validity** is the extent to which a research process is accurate and reflects actual market conditions (ie it is free from systematic error).

**VALS (Values and Lifestyle)** is a psychographic segmentation system offered by the Stanford Research Institute.

**Variable** is a property that takes on different values at different times.

**Variable Respecification** is the transformation of data to create new variables (or modify existing variables) so that they are more consistent with the objectives of the study.

**Variance** is a measure of variability (or dispersion) of a distribution and it is equal to the mean of the squared deviations of all values from the mean.

**Venn Diagram** is a graphical method of representing operations on sets that is often used to illustrate probabilities.

**Verbal Protocols** is a technique used to understand respondents thought processes while they are performing a task or making a decision by asking them to think aloud.

**Verbal Rating Scales** are those that require respondents to indicate their position by selecting among orally identified categories.

**Verbatim (aka Verbatim Statement)** is a reproduction of all of a respondent's opinion of an object or concept word-for-word, without any omissions, abbreviations or interpretations by the interviewer.

**Viewing Facility** is a venue for conducting group discussions or individual interviews that has a two-way mirror. The purpose of the mirror is to allow clients and other invited parties (advertising or design agencies) to observe without influencing the discussion taking place.

**Virtual Group** is a general term to cover any form of group discussion that is convened using electronic means and participants do not see each other. Examples of virtual groups are: online group discussions, moderated e-mail groups (MEGs) and chat rooms.

**Volume per Buyer** see buying rate.

## W

**Wave** is a single mailing or group of interviews conducted at about the same time. A research study or survey may consist of several waves.

**Web Site Survey (aka HTML Survey)** is a questionnaire that is based on a web site. Potential respondents are invited to participate in the survey (by a banner advert or other message) and then they are given a link to a satellite site where they complete a questionnaire. The survey is completed on line and respondents can be offered anonymity.

**Weighted Sample** is a sample to which weighting has been applied.

**Weighting** is when the responses from some (or all) sub-groups are assigned a statistical weight to reflect the importance of the sub-group in the population of interest.

**Word Association** is a form of projective technique where participants are presented with a list of words and, after each word, they are asked to say the first word that comes into their minds.

## Y

**Yea Saying** see acquiescence bias.

## Z

**Z Test** is a statistical test that is based on the standard normal distribution.

**Z Value** is the number of standard deviations a point on a distribution is away from the mean.