

Marketing Research Glossary

A

A priori segmentation

Market segmentation which is not empirically based. It involves segmenting markets on the basis of assumptions, custom or hunches.

A.C. Nielsen Retail Index

Audit of household items, food, personal products etc., at the retail level.

AAU (attitude, awareness and usage) study

A type of tracking study that monitors changes in consumer attitudes, awareness and usage levels for a product category or specific brand.

ACASI (audio computer-aided self-administered interviewing)

Self-administered surveying in which the respondent listens to the questions over headphones. Responses are usually registered using a computer-based questionnaire. If responses are recorded on paper it is known as audio SAQ.

Accuracy

The degree of conformity of a sample statistic to the population.

ACORN

A classification of residential neighborhoods; a marketing segmentation system that enables consumers to be classified according to the type of area they live.

Action devices

Items and techniques used to encourage positive response, e.g. tokens, stickers.

Active buyer

Customer whose latest purchase was made within the last 12 months.

Ad concept testing

Testing used to determine the target audience reaction to alternative advertising approaches or preliminary ad concepts.

Ad hoc surveys

Questionnaires administered to the target audience with no prior contact by the researcher.

Ad positioning statement tests

Testing to determine reactions of the target audience to positioning statements that are being considered for use in advertisements.

Ad tracking research

Periodic measurements of the impact of advertisements over time.

Address coding guide (CG)

List of beginning and ending house numbers, ZIP codes and other geographic codes for all city delivery service and streets served by 31,540 post offices located in 6,601 ZIP codes.

ADI (Area of Dominant Influence)

A television market, as defined by Arbitron, a firm which measures TV audiences. Each ADI is assigned Arbitron's three-digit numeric code.

Affective component of attitudes

An individual's emotional reactions about an object.

After-only with control group

True experimental design involving the random assignment of subjects to experimental and control groups but no pre-measurement of the dependent variable.

AID (automatic interaction detector)

A method of multivariate analysis often used in market segmentation studies.

Allowable sampling error

The amount of sampling error the researcher is willing to accept.

Alternative hypothesis

What is believed to be true if the null hypothesis is false. Also known as the research hypothesis.

Analysis of variance (ANOVA)

A method of analysis for determining the level of statistical significance of differences among the means of two or more variables.

Anthropomorphic

A research technique in which participants describe a product, service or brand in terms of a human being with personality traits so that the participants' feelings about the object/brand can be determined.

Applied research

Any research which is used to answer a specific question, determine why something failed or succeeded, solve a specific, pragmatic problem, or to gain better understanding.

Area samples

Samples which include geographic areas as part of the sample design.

ASCII (American standard code of information interchange)

Widely used code for transmission of data from one database to another.

Asterisk bills

State laws which require telephone companies to advise subscribers that they can have an asterisk placed in front of their names if they do not want to receive telemarketing or telephone interviewing calls.

At-home testing

A product sample is provided for participants to use at home. The reaction to the product is determined in a follow-up telephone survey, written survey or in a group session.

Attitudinal scaling

A moderation technique in which participants are instructed to conceptualize the product or service on a two-dimensional scale, such as price and quality. The goal is to better understand the participants' feelings about the product or service.

Audio SAQ

Self-administered surveying in which the respondent listens to the questions over headphones. Responses are usually recorded on a paper questionnaire. When the respondent uses a computer-based questionnaire to record answers it is known as ACASI (audio computer-aided self-administered interviewing).

Audit

The examination and verification of the sale of a product. A method for measuring sales in a store by counting beginning inventory, adding new shipments, and subtracting ending inventory. Also used to determine inventory lost to theft.

Autocorrelation

The problem of interdependence among successive values of the disturbance term. The problem with autocorrelation concerns the variance of our estimator.

Automatic interaction detection

Program for segmenting a list from a heterogeneous to a homogeneous market.

Awareness

The proportion of people who are familiar with a product, brand name or trademark.

B

Baby boom

The large generation of Americans born after World War II. Usually defined as those born between 1946 and 1964.

Baby boomlet

The children of the baby boom which resulted in a peak in births between 1977 and the present.

Baby bust

Generation between 1965 and 1976, when birth rates dropped rapidly and remained low. Often called generation X.

Back room

The room from which client personnel observe and listen to focus group proceedings through a one-way mirror. Also called the observation room or viewing room.

Balanced incomplete block (BIB)

An experimental design procedure for rotating a large number of products or items in a test.

Balanced scales

Scales with the same number of positive and negative categories.

Banner

The column headings, or cross-tab breaks, that run horizontally across the top of a computer table.

Base

The number on which the percentages in a table are calculated.

Baseline market segmentation study

The first market segmentation study conducted by an organization.

Basic research

Research aimed at expanding knowledge rather than solving a specific, pragmatic problem.

Bayesian statistics

Statistics which incorporate prior knowledge and accumulated experience into probability calculations.

Before and after with a control group

Random assignment of subjects to experimental and control groups with pre-measurement of both groups.

Behavioral component of attitude

An individual's intentions to act based on attitudes about an object.

Benchmark

A control source against which you compare the area you're studying. For example, you may compare the results of a study in one state to the results of the nation as a whole.

Bernoulli response variables

Also known as dichotomous or binary variables. Each element is one of two possibilities such as yes/no or on/off.

Bias

A systematic tendency of a sample to misrepresent the population. Biases may be caused by improper representation of the population in the sample, interviewing techniques, wording of questions, data entry, etc.

Bimodal

A distribution in which the frequency curve has two peaks. A single peak is called a mode.

Binomial experiment

An experiment that consists of repeatedly drawing independently from Bernoulli population; the sequence of Bernoulli trials.

Bipolar scale

A scale with two negative, opposite end points and a midpoint representing the ideal situation. Examples: comfortable/uncomfortable, soft/hard, too spicy/too bland.

Birth rate

Number of births a year per 1,000 of population.

Bivariate data set

Data set in which two measurements (variables) have been made on each experimental unit or respondent.

Bivariate regression analysis

Analysis of the strength of the linear relationship between two variables, the independent variable and the dependent variable.

Bivariate techniques

Statistical methods of analyzing the relationship between two variables.

Block numbering area (BNA)

Statistical subdivisions within non-metropolitan counties for grouping and numbering.

Blocked calls

Calls that receive busy signals.

Blocks

Census areas usually equivalent to city blocks.

Boundary

The border around a market area that is being studied.

Boundary files

Geographic features such as streets, railroads, blocks, described in a manner that is understandable to a computer.

Box plot

A graphical tool used to picture the data and possible outliers in the data.

Brand associations

Components of brand image, usually (but not always) assessed by qualitative research method.

Brand equity

The level of awareness and consumer goodwill generated by a company's brands and/or products.

Briefing

A meeting in which a client and researcher discuss the client's information needs so that the most appropriate research methodology can be recommended.

Buying intent

A scale used to measure the likelihood that the respondent will purchase a product.

C

Call record sheet

Interviewer log which lists the number and results of a contact.

Callback

An attempt to reach a person who could not be reached on the first try or a follow-up or after-use interview.

CAPI (computer-aided personal interviewing)

Interviewer-administered surveying using a computer-based questionnaire

Cartoon tests

Tests in which the respondent fills in the dialogue for a character in a cartoon.

CASI (computer-aided self-administered interviewing)

Self-administered surveying using a computer-based questionnaire.

Cathode-ray tube (CRT)

A computer terminal with a keyboard and monitor. Used in research to display questions and enter responses directly into the computer for tabulating.

CATI (computer-aided telephone interviewing)

Interviewer-administered telephone surveying using a computer-based questionnaire

Causal research

Study examining whether one variable causes or determines the value of another.

Causation

The inference that a change in one variable is responsible for an observed change in another variable.

CCENSPAC

Computer program developed by the Census Bureau for the 1980 census.

Cell size

Smallest unit or segment quantity of an individual variant within a test program.

Census

A sample consisting of the entire population.

Census areas

Areas defined by the U.S. Census Bureau including four census regions and nine census divisions.

Census divisions

The nine census divisions (grouping of states) are: 1. Pacific: Alaska, California, Hawaii, Oregon, Washington 2. Mountain: Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming 3. West North Central: Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota 4. East North Central: Illinois, Indiana, Michigan, Ohio, Wisconsin 5. West South Central: Arkansas, Louisiana, Oklahoma, Texas 6. East South Central: Alabama, Kentucky, Mississippi, Tennessee 7. South Atlantic: West Virginia, Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, Washington, DC 8. Middle Atlantic: New Jersey, New York, Pennsylvania, Rhode Island 9. New England: Connecticut, Maine, Massachusetts, New Hampshire, Vermont.

Census regions

The four census regions (groupings of states) are: 1. West: Washington, Oregon, California, Idaho, Montana, Wyoming, Colorado, New Mexico, Arizona, Utah, and Nevada 2. Midwest: North Dakota, South Dakota, Nebraska, Kansas, Missouri, Iowa, Minnesota, Wisconsin, Illinois, Indiana, Ohio, and Michigan 3. South: Texas, Oklahoma, Arkansas, Louisiana, Mississippi, Alabama, Florida, Georgia, South Carolina, North Carolina, Virginia, Washington, DC, Maryland, West Virginia, Kentucky, Delaware, and Tennessee 4. Northeast: Pennsylvania, New Jersey, New York, Connecticut, Rhode Island, Massachusetts, Vermont, New Hampshire, and Maine.

Census tract

Area within a ZIP code group denoting households with uniform social and economic characteristics. Tracts generally have between 2,500 and 8,000 residents.

Census undercount

The percent of Americans who did not answer the census.

Central limit theorem

A distribution of a large number of sample means or sample proportions will approximate a normal distribution regardless of the actual distribution of the population from which they were drawn.

Central-location study

A survey conducted at a conveniently located site to which respondents come to be interviewed.

Centroid

Geographic points marking the approximate centers of populations of the 260,000 block groups and enumeration districts in the U.S.

Chi-square

A test of statistical significance which tests one measure of how well your model of expected distribution fits the observed distribution.

Choropleth maps

Computer generated maps that represent values with shading.

Clarifying

A follow-up technique for getting complete responses to open-ended questions by asking respondents to explain general terms in their answers. Also see probing.

Clinical focus groups

Focus groups that explore subconscious motivation.

Closed-end question

Questions that ask the respondent to choose from a limited number of pre-listed answers.

Cluster

A category assigned to a neighborhood based on the assumption that the households share certain demographic, social, and economic characteristics.

Cluster analysis

A multivariate statistical classification technique for discovering whether the individuals of a population fall into different groups by making quantitative comparisons of multiple characteristics. The differences within any group should be less than the differences between groups. Often used for consumer segmentation and brand positioning.

Cluster sampling

Consists of selecting clusters of units in a population and then performing a census on each cluster. The selection of clusters could be based on some desired feature of the population or could be a random sample of clusters in the population.

CMSA (consolidated metropolitan statistical area)

A cluster of primary metropolitan statistical areas (PMSA), such as Minneapolis-St. Paul. CMSA markets are subdivided into MSAs.

Coding

The process of translating responses to questions into numerical form for data processing.

Coefficient of determination

The percent of the variability in the dependent variable explained by the independent variable.

Cognitive component of attitudes

An individual's knowledge and beliefs about an object.

Cognitive dissonance

Dissonance arises after a major purchase (e.g., a car) when alternatives are recommended and/or dislikes emerge with the choice. To eliminate the discomfort of dissonance, the consumer will seek to rationalize the original choice, in other words, find positive advantages and ignore the negative.

Cohort

A group of individuals having a statistical factor (age, race etc.) in common in a demographic study.

Cohort measures

Analysis of the activity of a cohort over an extended time period.

Collinearity

The correlation of independent variables with each other. Can bias estimates of regression coefficients.

Comparative scales

A judgment comparing one object, concept or person against another on a scale.

Complement of event "A"

The collection of all simple events not in Event A.

Completion rate

The percent of qualified respondents completing an interview or study.

Concentric circle

The shape of a geometric study area, sometimes referred to as a ring.

Concept description

A brief description of a new product or service.

Conceptual mapping

A moderation technique in which participants are asked to place the names of products or services on a grid. How they group the items on the diagram is used to stimulate discussion.

Conclusions

The outcome or result; the section of the final report that contains the interpretation of the data in light of the research objectives. See also executive summary.

Concomitant variation

The degree to which a cause and effect occur or vary together.

Concurrent validity

The degree to which a variable, measured at the same point in time as the variable of interest, can be predicted by the measurement instrument.

Conditional probability

The probability of a given event when additional information about that event is known. For example, the probability of rolling a one on the toss of a die when we are given the additional information that the roll landed on an odd number.

Confidence intervals

The range around a survey result for which there is a high statistical probability that it contains the true population parameter.

Confidence level

The probability that a particular confidence interval will include the true population value.

Confounded

An independent variable and an extraneous variable are confounded when their effects on the dependent variable cannot be distinguished from each other. Often a comparative study using a control group is used to avoid confounding variables.

Conjoint analysis

A multivariate technique used to quantify the value that people associate with different levels of product/service attributes. Respondents trade product attributes against each other to establish product (brand) preference and the relative importance of attributes. Based on utility theory and consumer rationality. Better for functional than fashionable brands.

Conjoint association

A moderation technique in which participants are asked to choose between two hypothetical products or services, each of which has different attributes. The objective is to stimulate discussion about the various attributes in order to gain insight into the relative value of each.

Constant sum scales

Scales that ask the respondent to divide a given number of points, typically 100, among two or more attributes based on their importance to the individual

Constitutive definition

Defines a concept with other concepts and constructs, establishing boundaries for the construct under study and stating the central idea or concept under study.

Construct

The working hypothesis or concept.

Construct validity

The degree to which a measurement instrument represents, via the underlying theory, the observed phenomenon to the construct.

Consumer drawings

Respondents draw what they are feeling or how they perceive an object.

Consumer expenditure

The amount consumers spend on goods and services.

Consumer Expenditure Survey (CEX)

Data gathered in an ongoing survey by the Bureau of Labor Statistics on the expenditures of consumers.

Consumer orientation

Identification of and focus on the individuals or firms most likely to buy a product or service.

Consumer Price Index (CPI)

Compares the current cost of purchasing a fixed set of goods and services with the cost of the same set at a specific base year. The resulting measures can be compared over time.

Consumer unit

All related members of a particular household; a person living alone or sharing a household with others, who is financially independent; two or more persons living together who pool their incomes to make joint purchases.

Contamination

The inclusion of an individual or group of respondents in a test group who do not represent the population.

Content analysis

A technique used to study written material (usually advertising copy) by breaking it into meaningful units, using carefully applied rules.

Continuous variable

A quantitative variable that can assume an infinite number of values associated with the numbers on a line interval. Normally continuous variables are the result of some measurement process. Grade point average is a continuous variable because it can assume any value between 0.0 and 4.0.

Controlled substitutions

Substituting a unit of sample or respondent with another (drawn in accordance with the selection parameters of the individual being replaced).

Convenience sample

A sampling procedure that leaves the selection of respondents totally to the interviewers, with no quotas or qualifications imposed. It consists of those units of the population that are easily accessible.

Convergent validity

The degree of association among different measurement instruments that purport to measure the same concept.

Co-op payment

The payment provided to participants as an incentive to come to the focus groups or answer surveys. The amount varies dramatically, based on the difficulty of recruiting the participants. Also called the honorarium or incentive.

Corporate marketing research department

Oversees and/or conducts research to support the firm's present or future marketing efforts.

Correlation analysis

Analysis of the degree to which changes in one variable are associated with changes in another.

Criterion variables

The variables being predicted or explained in a study. Also known as the dependent variable.

Criterion-related validity

The degree to which a measurement instrument can predict a variable that is designated a criterion.

Cross-elasticity

The extent to which products are substitutes for one another. Marketers use differentiation and quality to seek to minimize cross-elasticity and thus it could be seen as part of brand equity or marketing effectiveness. See also elasticity.

Crosstabulation

Examination of the responses to one question relative to responses to one or more other questions.

Current Population Survey (CPS)

The survey conducted by the Census Bureau which monitors changes between the decennial censuses. Conducted monthly to 60,000 households.

Custom marketing research

Customized marketing research to address specific projects for corporate clients.

Customer satisfaction research

Research conducted to measure overall satisfaction with a product or service and satisfaction with specific elements of the product or service. (Quirk's Marketing Research Review devotes the October issue to this topic.)

D

Data

The collection of observations.

Data processing

Organization of data for the purpose of producing desired information; involves recording, classifying, sorting, summarizing, calculating, disseminating and storing data. (The February issue of Quirk's Marketing Research Review has a section devoted to data processing service providers.)

Data User News

A monthly newsletter issued by the U.S. Census Bureau.

Database management software

Computer programs in which data are captured on the computer, updated, maintained and organized for effective use and manipulation of data.

Day-after recall

An advertising testing technique that measures the proportion of people recalling seeing a TV commercial within 24 hours of its airing.

Daytime population

The population of an area during the daytime, which is usually far different from the residential population measured by the census.

Decennial census

The census that is conducted by the U.S. Census Bureau every 10 years in the first year of the decade.

Delphi technique

Method of expert judgment without adequate hard data, e.g., long-term forecasting. Stage 1 is to poll experts, anonymously and separately. In Stage 2 the results are consolidated and fed back to the experts as a group. Stage 3 polls them individually again, in the light of peer group opinion. In theory, the process continues until consensus arrives.

Demographics

Description of the vital statistics or objective and quantifiable characteristics of an audience or population. Demographic designators include age, marital status, income, family size, occupation, and personal or household characteristics such as age, sex, income, or educational level.

Demography

A social science concerned with the size, distribution, structure, and change of populations.

Density

A measure that is computed by dividing the total population of a geographic unit by its land area measured in square miles or square kilometers.

Dependent variable

A symbol or concept expected to be explained or caused by the independent variable. It is the variable measured on each subject to determine whether its value is affected by the independent variable. Also known as criterion variable.

Depth interview

One-on-one interviews that probe and elicit detailed answers to questions, often using nondirective techniques to uncover hidden motivations.

Descriptive function

The gathering and presentation of statements of facts.

Descriptive studies

These studies answer the questions who, what, when, where, how.

Design control

Use of the experimental design to control extraneous causal factors.

Diagnostic function

The explanation of data or actions.

Diary panel

A survey in which the same respondents keep a diary of what they watch, listen to, or buy, etc., over specified period of time.

Dichotomous questions

Questions that ask the respondents to choose between two answers.

Digitizing

The process of assigning latitude and longitude coordinates for each twist and turn of a market area that is to be studied.

Direct computer interviewing

Consumers are intercepted in a mall or other central location and interviewed by a computer that asks questions and accepts responses.

Directory database

Data available through directories or indexes of directory-type data.

Disappointment score

The proportion of respondents in a product test who indicate, after trying the product, that they would not buy it.

Discrete variable

A quantitative variable that can assume a finite or at most a countable number of values such as the number of children in a family.

Discretionary income

The amount of money people have for spending after taxes and necessities are paid for. Also known as disposable income.

Discriminant analysis

A multivariate technique for analyzing the predictive value of a set of independent variables.

Discriminant coefficient

Estimate of the discriminatory power of a particular independent variable.

Discriminant score

The basis for predicting to which group a particular object or individual belongs.

Discriminant validity

The lack of association among constructs that are supposed to be different.

Discussion guide

A written outline of topics to cover during a focus group discussion. See also moderator guide.

Discussion question

A question which has no pre-listed answers and thus allows the respondent to answer in his/her own words. Also known as open-ended question.

Disguised observation

The process of monitoring people, objects, or occurrences that do not know they are being watched.

Disk-by-mail (DBM)

Self-administered surveying using a computer-based questionnaire which is mailed to participants.

Disposable income

The income available to persons for spending or saving after taxes have been deducted. Also known as discretionary income.

Disproportional or optimal allocation

Sampling in which the number of elements taken from a given stratum is proportional to the relative size of the stratum and the standard deviation of the characteristic under consideration.

Distribution check

A study measuring the number of stores carrying specified products, along with the number of facings, special displays, and prices of the products.

DMA (Designated Marketing Area)

A television market, as defined by NPD/Nielsen, a firm which measures TV audiences.

Door-to-door interviewing

Consumers are interviewed face to face in their homes.

Double jeopardy

The marketing problem in which smaller brands are bought both less frequently and by fewer people.

Double sampling

Data is collected through an inexpensive sampling technique for a sample larger than the final desired sample size. A subsample of this group is then selected and sampled - usually with a more expensive technique.

Duplicate number validation

A service in the focus group industry in which the names and telephone numbers of people recruited for groups are submitted to a central screening organization in advance of the groups for the purpose of screening out people who have recently participated in any session or are involved in focus groups more frequently than is desired.

Dyad

A qualitative research methodology in which an interviewer works with two participants at once. This technique is particularly appropriate for products and services for which two persons are relatively equal partners in making a purchase decision.

E

Editing

The process of ascertaining that questionnaires were filled out properly, completely and accurately.

Efficiency

The degree to which the sample represents the population. See also precision.

Elasticity

Measures the extent volume shifts in response to a shift in the variable under consideration.

Electroencephalogram (EEG)

A machine that measures the rhythmic fluctuations in electrical potential of the brain.

Electronic data processing (EDP) systems

Information systems that manipulate raw data with little intrinsic meaning to reflect transactional relationships, such as declarative and summary reports.

Element sampling

A procedure in which each unit of a population has an equal chance of being chosen.

Enumeration districts (EDs)

Census enumeration areas, averaging around 500 inhabitants.

Epssem sample

An Epssem (equal probability of selection method) sample is one in which the population elements have equal and non-zero probabilities of selection.

Equivalent form reliability

The ability to produce similar results using two instruments as similar as possible to measure the same object.

Error checking routines

Computer programs that accept instructions from the user to check for logical errors in the data.

Error sum of squares

The variation not explained by the regression.

E-spread

The distance between the first and seventh sample eighths.

Estimate

A numerical value obtained from a statistical sample and assigned to the population parameter.

Evaluate research

Research to determine the effectiveness and efficiency of specific programs.

Event (simple)

Any subset of a sample is called an event. Those subsets containing a single outcome are called simple events. In rolling a die the event might be that an even number is rolled. There are six simple events 1,2,3,4,5,6.

Exchange

The first three digits of a phone number. Also known as a prefix. It represents the town, community or neighborhood in which a telephone number is located.

Executive interviewing

The business equivalent of door-to-door interviewing.

Executive summary

The portion of a research report that explains why the research was done, what was found and what those findings mean, and what action, if any, management should undertake. See also conclusion.

Exhibit

Anything shown to respondents during an interview. Examples: a print advertisement, a card listing income categories. Also known as external stimuli.

Expected value

The mean of a probability distribution. It is the value of the probability distribution we would expect in the long run.

Experiencing focus groups

Focus groups that enable a client to observe and listen to how consumers think and feel about products and services.

Experiment

The process of making an observation or taking a measurement.

Experimental design

A test in which the researcher has control over one or more independent variables and manipulates them.

Experimental effect

The effect of the treatment variable on the dependent variable.

Experimental unit

The basic element on which the experiment is conducted. Also called a subject, unit, respondent, participant or unit of analysis.

Exploratory focus groups

Focus groups that aid in the precise definition of the problem, in pilot testing, or in generating hypotheses for testing or concepts for further research.

Exploratory research

Preliminary research to clarify the exact nature of the problem to be solved.

Exponential smoothing

Any set of data recorded in time intervals. Also called time series analysis.

Expressive drawing

A moderation technique in which participants are asked to express their reaction to a product or service by drawing a picture.

External stimuli

Objects that are introduced into a focus group to generate reactions from the participants. Examples include concept boards, product prototypes, and rough and finished advertising. Also known as an exhibit.

External validity

The extent to which causal relationships measured in an experiment can be generalized to outside persons, settings and times.

F

Face validity

The intuitive test of whether a measurement seems to measure what it is suppose to measure.

Factor

A variable that is controlled or manipulated by the researcher. May also be known as the independent variable or factor.

Factor analysis

Procedure for data simplification through reducing the many rating scales (or set of variables) used by the researcher to a smaller set of factors or composite variables by identifying dimensions underlying the data.

Factor loadings

The correlation between each factor score and each of the original variables.

False accuracy

An unwarranted illusion of accuracy provided by details, such as statistics quoted to two decimal places.

Family

As defined by The Bureau of the Census, two or more persons who are related by birth, marriage, or adoption and who live together as one household. Families do not include one-person households or those having two or more unrelated individuals.

Fertility rate

General fertility rate is the number of births a year per 1,000 women aged 15 to 44. Total fertility rate is the number of live births per 1,000 women in their lifetime

Field experiments

Tests conducted outside the laboratory in an actual market environment.

Field management companies

Firms that provide support services such as questionnaire formatting screener writing, and data collection to full-service research companies.

Field service

Collection of survey data.

Final report

The document that the researcher develops at the conclusion of the research project. Its length varies, but a typical final report includes several sections: a summary of the methodology used, a review of the key findings, and the conclusions or interpretations of what the findings mean in light of the research objectives. Some final reports also contain a recommendations section containing suggestions for the client's next steps based on the conclusions of the research.

Findings

The portion of the final report wherein the facts from the research are summarized. The findings section does not interpret the information but reports the findings on which the interpretation will be based.

Finite population correction factor (FPC)

An adjustment to the required sample size that is made in those cases in which the sample is expected to be equal to 5 percent or more of the total population.

Fixed field

A way of laying out or formatting list information in a computer file that puts every piece of data in a specific position relative to every other piece of data. If a piece of data is missing from an individual record, that space is not filled. Any piece of data exceeding its assigned space limitation must be abbreviated or contracted.

Fixed personality association

A projective moderation technique in which participants are shown pictures of people, places or things and asked to interpret them in regard to the topic. Fixed personality associations use the same pictures over an extended period of time rather than varying them so that norms are created that may apply to a large number of sessions.

Focus group

A qualitative market research technique in which a group of participants (approx. 10) of common demographics, attitudes, or purchase patterns are led through a discussion of a particular topic by a trained moderator. (The December issue of Quirk's Marketing Research Review is devoted to focus groups and qualitative research including a directory of facilities and services offered.)

Focus group facility

Facility consisting of conference or living room settings and an observation room connected to each other by a one-way mirror. In addition, a facility normally provides a variety of services such as recruiting the participants, providing food, procuring competitive product samples and videotaping the sessions. (The December issue of Quirk's Marketing Research Review is devoted to focus groups and qualitative research. It includes a directory of focus group facilities and services offered.)

Focus group moderator

The person hired by the client to lead the focus group. (Quirk's Marketing Research Review provides a listing of moderators in every issue.)

Forecast

An estimate, based on assumptions about future trends in births, deaths and migration, or of a demographic characteristic such as population or number of households. Forecasts and projections are terms that are often used interchangeably.

Frame error

Error resulting from an inaccurate or incomplete sample frame.

Frequency

A measure of how often an event occurs; a count of the number of subjects falling in the different categories.

Fresh participants

Focus group participants who have never participated in a session previously, or not for several years.

F-test

Test of the probability that a particular calculated value could have been due to chance.

Full group

A focus group with eight to 10 participants. A less-than-full group is normally referred to as a minigroup.

Full text database

Index containing the full text of source documents, such as articles.

G

Galvanic skin response (GSR)

A change in the electrical resistance of the skin that is a physiochemical response to an emotional change.

Geocoding (or geographic encoding)

The process whereby addresses are segmented by county, MSA, postal route, etc., in order to compare them with information about the demographics and psychographics of those geographies. Geocoding is integral to demographically-enhanced mailing lists and cluster analysis.

Geodemographic segmentation system

A multivariate statistical classification technique for discovering whether the individuals of a population fall into different groups by making quantitative comparisons of multiple characteristics. The differences within any group should be less than the differences between groups. Often used for consumer segmentation and brand positioning. Often known as cluster analysis.

Geographic information system

A business tool for interpreting data that consists of a demographic database, digitized maps, a computer and software.

Geographics

Any method of subdividing a list based on geographic or political subdivisions

Geometric study area

A market site in the shape of a concentric circle or polygon that is to be analyzed.

Global focus groups

Focus groups conducted using satellite video technology in which participants are located in different places, normally in different countries. Also called video focus groups.

Graphic rating scales

Graphic continuums anchored by two extremes presented to respondents for evaluation of a concept or object.

Grid

A graphic provided to focus group participants in conceptual mapping and attitudinal scaling exercises.

Grid test

A means of testing more than one variable at a time.

Gross income

The total amount of money people have before taxes and necessities are paid for.

Group dynamics

The interaction among people in a group. An effective moderator can enable group dynamics to promote helpful discussion by various techniques, as well as minimize the potentially negative effects of group dynamics.

Group interview

A qualitative research technique involving a discussion among eight to 10 respondents, led by a moderator. Also called focus groups, group discussions, panels, and group depth interviews.

Group quarters population

Residents of military barracks, college dormitories, prisons, long-term-care hospitals, boarding houses, nursing homes etc.

Growth rate

The total increase or decrease in a population during a given period divided by the average population in that period.

H

Head of household

A term no longer used by the U.S. Census Bureau (although often used in the research industry). The new term is householder. The householder is the person who completed the Census Questionnaire.

Hedonic scale

A scale for measuring general, overall opinion of a product.

Heteroscedasticity

In regression analysis the condition of nonconstant variance.

History

Things that happen or outside variables that change between the beginning and end of an experiment. See also maturation.

Homogeneous groups

Groups in which the units or individuals have extremely similar characteristics.

Homoscedasticity

In regression analysis it is the condition of constant variance.

Honorarium

The payment provided to focus group participants. The amount varies dramatically, based on the difficulty of recruiting the participants. Also called the co-op payment or incentive.

Hostess

The individual responsible for greeting the focus participants as they arrive at the facility and for preparing the room. The responsibilities of a hostess include providing food for the participants and the client observers, rescreening respondents when they arrive, preparing name tags, etc.

Household

All persons who occupy a housing unit.

Householder

In most cases, the person in whose name the home is owned or rented. Also called head of household. In some cases, the individual who was surveyed or interviewed. The U.S. Census Bureau defines the householder as the person who completed the Census Questionnaire.

Housing unit

A house, apartment, group of rooms, or a single room occupied as separate living quarters.

Humanistic inquiry

A research method in which the researcher is immersed in the system or group under study.

Hypothesis test of proportions

Test to determine whether the difference between proportions is greater than would be expected because of sampling error.

I**Immigration**

Movement of people into a country from another country.

Incentive

The payment to participants for coming to a focus group. The amount varies dramatically, based on the difficulty of recruiting the participants. Also called honorarium or co-op payment.

Incidence

Any figure referring to the percentage of people in a category. Examples: incidence of users, incidence of people qualifying for a study.

Income

As defined by the Census Bureau income is wage or salary income; self-employment income; interest, dividend, or net rental income; Social Security income; public assistance income; all other income, which includes unemployment compensation, veterans' payment, pensions, alimony, etc.

Independent samples

Samples in which measurement of a variable in one population has no effect on the measurement of the variable in the other.

Independent variable

A variable that is controlled or manipulated by the researcher. See also predictor variables or factor.

In-house recruiting

The recruiting of focus group participants by people who are physically located within the facility.

Instrument variation

Differences or changes in measurement instruments (e.g., interviews or observers) that explain differences in measurements.

Intelligent data entry

The logical checking of information being entered into a data entry device by that machine or one connected to it.

Intercept

A recruitment method in which an interviewer stops people in a mall or other public location and

administers survey. (The November issue of Quirk's Marketing Research Review contains a section devoted to mall intercepts.)

Internal consistency reliability

Ability to produce similar results using different samples to measure a phenomenon during the same time period.

Internal database

Database developed from data within the organization.

Internal validity

The extent to which competing explanations for the experimental results observed can be avoided.

Interrupted time-series design

Research in which the treatment interrupts ongoing repeated measurements.

Intersection

Is the event containing all simple events that are in both event A and event B. The concept can be extended to more than two events.

Interval

Taking a given number of units equally selected over the full population of study. The nth number interval is derived by dividing the total number of units by the sample number desired. Also known as nth selection.

Interval estimates

Inferences regarding the likelihood that a population value will fall within a certain range.

Interval scale

Ordinal scale with the additional property that the distance between observations is meaningful. An example would be the temperature. See ratio scale.

Interviewer

The person responsible for recruiting participants for a focus group or the person administering a questionnaire.

Interviewer error

Error that results from conscious or unconscious bias in the interviewer's interaction with the respondent.

Interviewer's instructions

Written directions to the interviewer on how to conduct the interview.

Itemized rating scales

Scales in which the respondent selects an answer from a limited number of ordered categories.

J

Judgment sample

A sample containing certain types of respondents, who are selected on the basis of the judgment that their attitudes or behavior will be representative of the population.

K

Key verifying

Having two operators enter the same data to verify that entry is accurate.

Keypunch

Means of converting hard copy to machine readable form by punching holes in either cards or paper tape (rarely used anymore).

Kolmogorov-Smirnov test

Test of the goodness of fit between the observed distribution and the expected distribution using ordinal data.

L

Labor force

All civilians who are working or actively looking for work, plus members of the Armed Forces stationed in the U.S.

Labor force participation rates

The ratio of the population working or looking for work in an age-sex category to the total population in the category.

Laboratory experiments

Experiments conducted in a controlled setting.

Laddering

A probing technique, used in one-on-ones and focus groups, designed to delve into the real reasons for participants' attitudes and behavior toward the topic. It is generally considered to be an intensive technique. The moderator seeks the reason behind each answer until he or she arrives at a basic human need such as ego or status.

Lelly triads

Also known as repertory grids. used especially by advertising agencies to elicit consumer language for the products in question. Products (or whatever) are written or pictured on cards which are dealt three at a time. The respondent is invited to pick the odd one out and explain why it is odd. The language and key discriminators are noted.

Level of significance

Probability of making a Type I error.

Lifestyle research

Research that attempts to explain behavior by analyzing people's attitudes, hobbies, activities and opinions. Often associated with psychographic research.

Lifestyle selectivity

Selectivity based on lifestyle habits of segments of the population, e.g., hobbies, interests, ownership etc.

Likert scale

A scale in which the respondent specifies a level of agreement or disagreement with statements that express a favorable or unfavorable attitude toward the concept under study. See also semantic differential.

Listed sample

A sample which contains only directory-listed telephone households.

Listed telephone households

Households which are listed in published telephone directories.

Logit model

A version of regression analysis using an S-shaped curve instead of a straight line. Used when responses are binary, e.g., yes/no, rather than continuous numbers.

Long census form

The decennial census questionnaire that was answered by a sample of the population. Data from the long form are available only for large geographic areas because the Census Bureau protects the anonymity of all respondents.

Longitudinal study

A long-term survey based on repeated analysis of either the same sample (called a panel study) or new samples chosen at regular intervals.

M

Machine-readable data

Imprinted alpha-numeric data that can be read and converted to magnetic form by an optical character reader.

Mail panels

A study in which participants are precontacted and screened, then periodically sent questionnaires.

Mall intercept interviewing

Shoppers are intercepted in public areas of malls and interviewed face-to-face. (The November issue of Quirk's Marketing Research Review contains a directory of mall research facilities/features and articles about mall research.)

Mapping

The process by which a computer generates thematic maps that combine geography with demographic information and a company's sales data or other proprietary information.

MAPPING

Mathematical Analysis of Perception and Preference. See perceptual MAPPING.

Marginal

A computer-generated frequency count of the number of people giving each answer to all the questions in a questionnaire. Also called an 80-column dump. Often used to monitor entry of valid codes and correct use of skip patterns.

Market

Total of all individuals or organizations that represent potential buyers.

Market segmentation

The process of dividing a total market into sub-groups of consumers who exhibit differing sensitivities to one or more marketing mix variables.

Marketing

The process of planning and executing the conception, pricing, promotion and distribution of ideas, goods, and services to create exchanges that satisfy individual and organizational objectives.

Marketing concept

The business philosophy that a company's effort should be adapted to the needs and wants of its customers.

Marketing information systems (MIS)

These systems create rather than simplify manipulated data, presenting data in a form useful to a variety of people within the organization.

Marketing mix

The unique blend of product pricing, promotion, offerings, and distribution designed to meet the needs of a specific group of customers.

Marketing research

The planning, collection, and analysis of data relevant to marketing decision making, and the communication of the results of this analysis to management. (Quirk's Marketing Research Review magazine covers the marketing research industry and provides practical applications in marketing research.)

Marketing strategy

Guiding the long-run use of the firm's resources based on its existing and projected capabilities and on projected changes in the external environment.

Markov model

Sets out in matrix form the probability that the user of each brand in a category will switch next time to each other brand. Mathematically sound and now measurable through retail scanners.

Maturation

Changes in subjects that take place during the experiment that are not related to the experiment but may affect their response to the experimental factor. See also history.

Mean

The sum of the values for all observations of a variable divided by the number of observations.

Mean square error

The square root of the sum of the standard error squared and the bias squared. A measure of the total error to be expected for a sample estimate.

Measure of location

A quantity that locates a particular position in the frequency distribution. An example is the mean, which is a measure of the center of the frequency distribution.

Measurement

Process of assigning numbers or labels to things in accordance with specific rules to represent quantities or qualities of attributes.

Measurement error

Error that results from a variation between the information being sought and the information actually obtained by the measurement process.

Media marketing areas

The two firms which measure TV audiences, Arbitron and NPD/Nielsen, have slightly different definitions of media marketing area (television market), based on sampling, etc. Arbitron's TV markets are called Areas of Dominant Influence (ADIs), while Nielsen's are Designated Market Areas, or DMAs.

Median

The numerical observation that divides the distribution of observations in half. Sometimes referred to as the second quartile.

Methodological log

A journal of detailed and time-sequenced notes on the investigative techniques used during a humanistic inquiry, with special attention to biases or distortions a given technique may have introduced.

Methodology

The research procedures used; the section of the final report in which the researcher outlines the approach used in the research, including the method of recruiting participants, the types of questions used, and so on. Methodology can also mean the approach a moderator uses to conduct focus groups.

Metric scale

Identifies categories of the variable in which observations can be ranked from smallest to largest and the distance between variables is meaningful and the ratios of the observations are meaningful. Also known as ratio scale. Examples include weight, height, age, etc.

Microdata

Census records of individual respondents stripped of their identifying information. Census microdata are available as public-use microdata samples (PUMS).

Migration

Movement of residence from one political area to another.

Minigroup

A focus group that contains between four to six participants. More than six is normally considered a full group, and fewer than four is a triad or a dyad.

Mixed groups

A focus group that contains both males and females.

Mobility

Geographic movement involving a change of residence.

Mode

The most frequently occurring measurement. The peak of a frequency curve.

Modeling

The formulation of mathematically-expressed variables to simulate a business decision environment. For example, a model could be formulated using demographics and a company's financial data to select new markets that have the same combination of factors that are present in currently successful markets.

Moderator guide

The outline that the moderator uses to lead the discussion in the focus group session. It is developed by the moderator on the basis of the briefings and identifies the topics that will be covered in a focus group session, and the approximate emphasis that will be given to each.

Monadic

Test in which a respondent evaluates only one product.

Mortality

Loss of test units or subjects during the course of an experiment. The problem is that those lost may be systematically different from those who stay.

MSA (Metropolitan Statistical Area)

A free-standing metropolitan area surrounded by non-metropolitan counties and not closely associated with other metropolitan areas. Each MSA is grouped by population size and coded using government FIP codes.

Multicollinearity

A problem that arises when at least one of the independent variables in a linear combination is in effect always a weighted sum of the values of the other independent variables. When this occurs, we are unable to separate its influence on the dependent variable from that of the others.

Multidimensional scaling (MDS)

Procedures designed to measure several dimensions of a concept or object. Similar to factor analysis but mathematically purer. Factor analysis uses regular ordinal arithmetic, e.g., $2+2 = 4$, whereas MDS requires numbers just to increase monotonically, e.g., $2+2 > 2$. Provides perceptual maps and works from rankings ($A > B$). See also perceptual MAPPING.

Multiple choice questions

Questions that ask a respondent to choose from a list of more than two answers.

Multiple regression analysis

Statistical procedure that studies multiple independent variables simultaneously to identify a pattern or patterns. See also regression analysis.

Multiple time-series design

An interrupted time-series design with a control group.

Multivariate analysis

Any statistical procedure that simultaneously analyzes several measurements (variables).

Mutually exclusive

Events are said to be mutually exclusive if they have no intersection.

Mystery shoppers

People employed to pose as consumers and shop at the competitors and their own stores to compare prices, displays, etc. (The January issue of Quirk's Marketing Research Review contains a directory of mystery shopping firms and articles with a mystery shopping emphasis.)

N

Neural network

A computer program that mimics the function of the human brain. In marketing research, neural networks are used as data analysis tools. By harnessing a computer's ability to process millions of calculations quickly, neural networks can identify patterns, draw abstractions and uncover relationships in large amounts of data.

Nixie

Mailing piece returned to mailer by the Postal Service because of an incorrect or undeliverable name or address. The nixie rate varies widely depending on the source of the mailing list.

Nominal grouping session

Qualitative research method in which consumers, brought together in small groups, independently generate ideas about a subject and hence discuss the ideas.

Nominal scale

Identifies categories of the variable. Categories are called classes or levels. Examples: male/female, user/nonuser.

Nonbalanced scales

Scales weighted toward one end or the other.

Noncomparative

A judgment made without reference to another object, concept, or person.

Non-family household

A household comprised of a person living alone or with non-relatives, as defined by the Census Bureau.

Nonprobability sample

Subset of a population in which little or no attempt is made to ensure a representative cross section.

Non-random

Occurrences which do not have an equal probability of occurring; not mathematically predictable on the basis of the classical theory of probability.

Nonresponse bias

Error that results from a systematic difference between those who do and do not respond to the measurement instrument.

Nonsampling error

All the sources of bias or inaccuracy in a study besides sampling error. Examples: leading by the interviewer, recording/data entry errors.

Normal distribution

A continuous distribution that is bell shaped and symmetrical about the mean.

No-show

A focus group participant who agrees to come to a session and is confirmed the same day, but nonetheless does not come to the group. Facilities compensate for no-shows by overrecruiting for groups by two or three people.

Nth selection

Statistical means of taking a given number of names or units equally selected over the full population of study. The nth number interval is derived by dividing the total number of units by the sample number desired. Also known as interval.

Null hypothesis

The statement being tested in a test of significance.

Numeric database

Database containing original survey data on a wide variety of topics.

O

Objectives

The information to be developed from a study to serve the project's purpose.

Observation

The value that the variable assumes for a single unit of the sample.

Observation research

Descriptive research that monitors respondents' actions without direct interaction. Sometimes called a quasi-experiment.

Observation room

The room from which client personnel observe and listen to focus group proceedings through a one-way mirror. Also called the back room or viewing room.

Occupancy status

Housing unit classification as occupied or vacant.

OCR (optical character reader)

Automatic computer input process whereby the computer scanner is able to read printed characters and convert them to electronic data.

Omnibus panel

Study over time in which the sponsoring research company defines the audience to be surveyed and the

intervals between studies. Numerous clients participate by submitting proprietary questions. Generally clients only receive results from their proprietary questions and general demographic questions. (The June issue of Quirk's Marketing Research Review has a section devoted to omnibus providers.)

On-air testing

Testing used to measure the impact of television and radio after they have begun to run on the air.

One-group pretest-post test design

Pre-experimental design with pre and post measurements but no control group.

One-on-one

A qualitative research technique in which a moderator interviews one participant. (Check out the December issue of Quirk's Marketing Research Review for a directory focus group facilities with one-on-one rooms.)

One-shot case study

Pre-experimental design with no control group and an after measurement only.

One-way frequency table

A table showing the number of responses to each answer of a survey question.

One-way mirror

A special mirror that permits observers to watch the proceedings in the focus group without the participants being able to see the observers. Virtually all focus groups are conducted in a room separated from an observation area by a one-way mirror.

Open observation

The process of monitoring people who know they are being watched.

Open-ended question

A question that has no prelisted answers which requires the respondent to answer in his or her own words. Also known as a subjective question.

Operational definition

Defines which observable characteristics will be measured and the process for assigning a value to the concept.

Optical scanner

A data processing device that can electronically read responses on questionnaires.

Ordinal scale

Identifies categories of the variable which can be ranked from smallest to the largest, but the distance between observations is not meaningful. An example would be a question which attempts to record the degrees of opinions using terms such as poor, fair, good and excellent.

Outmigration

Movement from a given area of a country to another area of the same country.

Overrecruit

The extra people who are recruited for a focus group to compensate for the inevitable no-shows.

P

Packaging tests

Tests used to gauge reactions to different packaging approaches.

Paired comparison

A test in which a respondent evaluates two products in a set based on some stated criteria.

Panel

A survey in which the same respondents are interviewed several times over an extended period. Also called longitudinal analysis. Group interviews (focus groups) are sometimes called panels.

PAPI (paper and pencil interviewing)

Survey in which the respondent fills out a traditional paper questionnaire. usually administered by interviewer. See also SAQ.

Parameter

Numerical summary measure of a population distribution.

Parent (underlying) distribution

The distribution of the measurements in the original population.

Part worths

Estimates of the value or utility that people associate with different levels of product/service attributes.

Participant

A person included in a focus group, survey or study. Also called respondent, unit, subject, experimental unit or unit of analysis.

Pearson's correlation coefficient

The most common measure of the strength of the association between variables.

Penetration analysis

Study of the market share held by a given firm or product within various universes by classification or other demographic characteristics.

People meter

A microwave computerized rating system that transmits demographic information overnight to measure national TV audiences.

People reader

A machine that simultaneously records the respondent's reading material and eye reaction.

Per capita income

The average amount of income per person in a population, regardless of age or labor force status. It is derived by dividing the total income by the total population.

Percentile

A value on the scale of 100 that indicates the percent of a distribution that is equal to or below it.

Perceptual MAPPING

Mathematical Analysis of Perception and Preference. A multivariate technique designed to represent consumers' product perceptions and preferences as visual representations or points on a map or graph. Also called multidimensional scaling or MAPPING.

Personal income

Money income plus certain non-cash benefits.

Photo sort

The respondent sorts photos of different types of people, identifying those photos that respondent feels would use the specific product or service.

Physical control

Holding the value or level of extraneous variables constant throughout the course of an experiment.

Placement interview

An interview in which a respondent is recruited and given the product to use in a product test.

PMSA (primary metropolitan statistical area)

Component of a larger area known as a consolidated metropolitan statistical area (CMSA) as defined by the U.S. Census Bureau.

Point estimator

Statistic whose value should be a close approximation to the true value of the parameter. The actual numerical value that the point estimator assumes from the collected data (the sample) is called the point estimate.

Population

The collection of all objects that are of interest to the statistician. The elements of a population may be called units or subjects. Also known as the universe.

Population centroid

According to the U.S. Census Bureau, the median central point of the population distribution.

Population distribution

A frequency distribution of all the elements of a population.

Population pyramid

The graphic representation of a population's age-sex composition. It is a bar graph with the population divided into ages or age groups, represented from the youngest at the bottom to the oldest at the top, with males on the left and females on the right.

Population specification error

Error that results from an incorrect definition of the universe (or population) from which the sample is chosen.

Population standard deviation

The standard deviation of a variable for the entire population.

Positioning

Location of a brand or product in consumers' minds relative to competitive products.

Post hoc segmentation

The process of segmenting a market or markets empirically.

Poverty

The income cutoffs used by the Census Bureau to determine the poverty status of families and unrelated individuals, based on family size. The poverty thresholds are revised annually to allow for changes in the cost of living as reflected in the Consumer Price Index.

Precision (lack of)

If, in repeated sampling, the values obtained tend to be widely scattered or spread out (the results obtained from one sample usually cannot be duplicated with another sample) the sample has a lack of precision. Precise samples have low standard errors. Increasing the sample size often increases the precision.

Predictive dialing

A computer automatically dials telephone numbers and passes connected calls to available interviewers.

Predictive function

Specification of how to use the descriptive and diagnostic research to predict the results of a planned marketing decision.

Predictive validity

The degree to which the future level of criterion can be forecast by a current measurement scale.

Predictor variables

The variables that explain or predict the differences in dependent variables. Examples: demographics, attitudes. Also called independent variables or factor.

Pre-experimental design

A design that offers little or no control over extraneous factors.

Prefix

The first three digits of a phone number. Also known as an exchange. It represents the town, community or neighborhood in which a telephone number is located.

Pre-recruited central-location test

A survey conducted at a conveniently located site to which respondents - who have been previously contacted and qualified - come to be interviewed.

Presentation software

Personal computer software that provides easy-to-use platforms for creating effective reports and presentations.

Pre-test

A trial run of a questionnaire sent to a small sample to be sure that actual responses are clear and that any problems with the questionnaire are detected.

Primary data

New data gathered to help solve the problem at hand. As compared to secondary data which is previously gathered data.

Primary Metropolitan Statistical Area (PMSA)

A metropolitan area that is adjacent to another. Defined by the U.S. Census Bureau.

Primary research

Conducting research to collect new data to solve a marketing information need. See also secondary research.

Primary sampling units

Geographic area where a survey will be conducted.

Probability (or density) function

Gives the probabilities that the random variable will assume each of its possible values. It is usually described in the form of an equation or a table.

Probability distribution

A table or function that lists all possible values of a discrete random variable and their associated probabilities.

Probability of a simple event

A number between zero and one that measures the likelihood that will occur when the experiment is performed. The probability of all simple events in a sample must sum to one.

Probability of an event

The sum of the probabilities of the simple events which make up the event.

Probability sample

A sample in which every unit has an equal (nonzero) and known probability of being selected. Sometimes called a random sample.

Probing

A follow-up technique for getting complete responses to open-ended questions by asking. Also see clarifying.

Probit model

A version of regression analysis, same as logit model except it uses a cumulative normal curve rather than a logistic one.

Processing error

Error that results from incorrect transfer of information from the data collection document to the computer.

Product concept testing

The testing of new product ideas before they have been turned into prototypes.

Product movement data syndicated services

Companies that collect, package and sell retail and wholesale sales data to many firms.

Product placement study

A type of test in which respondents try a product under normal usage conditions. Example: in-home test of a food product. Also called a product test.

Product positioning research

Research used to determine how competitive brands are perceived relative to each other on key dimensions.

Product pricing research

Research used to measure consumer sensitivity to different prices for a product.

Product prototype tests

Tests conducted to obtain the reactions of targeted customers to early working versions of new products.

Professional respondent

A participant who attends many sessions by volunteering for the recruitment lists of different facilities. Most moderators seek to eliminate professional respondents from groups, since they do not generally respond in the same objective way that fresh respondents.

Programmatic research

Research done to develop marketing options through market segmentation, market opportunity analysis, or consumer attitude and product usage studies.

Projectability

The capability of research results to be extrapolated to the larger universe, on the assumption that the sample is representative of the total.

Projection

An estimate, based on assumptions about future trends in births, deaths, and migration, of a demographic characteristic such as population or number of households. Forecasts and projections are terms that are often used interchangeably.

Projective

A class of moderation techniques used to stimulate discussion among participants. These techniques force the participants to think about the topic in a more subjective or creative way than they might in a regular discussion. Projectives include sentence completion, expressive drawing, anthropomorphization and associations.

Proportional allocation

Sampling in which the number of elements selected from a stratum is directly proportional to the size of the stratum relative to the population.

Psychographics

Research that attempts to explain behavior by analyzing people's personality traits and values. Often associated with lifestyle research.

Pupilometer

A machine that measures changes in the pupil dilation.

Purchase intent scales

Scales used to measure a respondent's intention to buy a product.

Purpose

The reason a research project is being conducted; usually focuses on the decisions for which information from the study will be used.

Q

Q-sorting

A sophisticated form of rank ordering using card sorts.

Q-spread

The distance between the first and third sample quartiles.

Qualitative

Research data not subject to quantification or quantitative analysis; characterized by the absence of empirical measurements and an interest in subjective evaluation. Qualitative methodologies include focus groups, mini-groups, one on-ones and open ended-questions.

Qualitative variable

A variable whose values are classifications or categories and are not subject to quantitative interpretation. Examples include sex, occupation, marital status, etc.

Quantitative research

Research conducted for the purpose of obtaining empirical evaluations of attitudes, behavior or performance. Designed to generate projectable numerical data about a topic.

Quantitative variable

A variable whose values are numerical in nature. Examples include weight, age, income, etc. Quantitative variables are further classified as being either discrete or continuous.

Quartiles

The division of the observation distribution into quarters (in the same way the median divides the distribution in half).

Quasi-experiments

Studies in which the researcher lacks complete control over the scheduling of treatment or must assign respondents to treatment in a non-random manner.

Questionnaire

A set of questions designed to generate data necessary for accomplishing the objectives of the research project.

Quota sample

A sampling procedure that includes specified numbers of respondents having characteristics known or believed to affect the subject being researched. Selection is by nonprobability means. A moderator might set a quota of having half the group be users of Brand X, or one-fourth be aware of Product Y.

R

Race

As defined by the U.S. Census Bureau: Aleut, American Indian, Asian, Black (or Negro), Chinese, Eskimo, Filipino, Guamanian, Hawaiian, Japanese, Korean, Samoan, Vietnamese, White, or "other."

Random

Being or relating to a set or element in which each set or element has an equal (non-zero) probability of occurring.

Random error

Error that affects measurement in a transient, inconsistent manner.

Random sampling

A sample in which each unit has an equal and independent chance of selection. Also known as probability sample.

Random variable

A variable whose value is determined by the outcome of an experiment in which the outcome is subject to chance. For example "heads" or "tails" is a random variable for a coin toss.

Random-digit dialing

A telephone sampling procedure that generates random combinations of telephone numbers in order to include unlisted numbers in a survey sample.

Randomization

The random assignment of subjects or treatment conditions to ensure equal representation of subject characteristics in all groups.

Range

The highest value for a variable minus the lowest value for that variable.

Rank-order scales

Scales in which the respondent compares one item with another or a group of items against each other and ranks them.

Rate

A fixed ratio between two things.

Ratio

A measure that expresses the relative size of two numbers.

Ratio scale

Identifies categories of the variable in which observations can be ranked from smallest to largest and the distance between variables is meaningful and the ratios of the observations are meaningful. The ratio scale is for variables that have a uniquely defined zero. Examples include weight, height, age, etc.

Recommendations

The section of the final report that suggests the next action steps a client could take, based on the conclusions of the research.

Recruitment

The process of securing participants for focus groups.

Regression analysis

A multivariate technique that relates a dependent variable to one or more independent variables.

Regression coefficients

Values that indicate the effect of the individual independent variables on the dependent variable.

Regression to the mean

Tendency for behavior of subjects to move toward the average for that behavior during the course of an experiment.

Rejection region

Those values of the test statistic that would lead to the rejection of the null hypothesis.

Related samples

Samples in which the measurement of a variable in one population may influence the measurement of the variable in the other.

Reliability

Measures that are consistent from one administration to the next.

Repeat rate

The proportion of first-time users of a product who purchase the product at least a second time.

Repeat-pairs technique

A product testing procedure in which respondents express a preference between two products, then repeat the task with an identical pair of products.

Replicate

Geographically representative subsample which is systematically selected from the entire sample.

Representative sample

A sample in which each unit has an equal and independent chance of selection. Also known as probability sample or random sampling.

Rescreening

A brief interview conducted with potential participants when they arrive at a facility to ensure that they really qualify for the session. Rescreening normally uses some of the questions that were originally asked when the participants were originally recruited.

Research design

The plan to be followed to answer the research objectives; the structure or framework to solve a specific problem.

Residual error

What still cannot be explained, after estimating the coefficients of the independent variables. Usually blamed on measurement or omissions.

Respondent

The individual from which data are collected. Also called participant, unit, unit of analysis, subject or experimental unit.

Response bias

Error that results from the tendency of people to answer a question falsely, through deliberate misrepresentation or unconscious falsification.

Rule

A guide or a command that tells a researcher what to do.

Rustbelt

States in the Great Lakes region.

S

Sample

A subset of the population of interest selected for a research study. It is a finite portion that is used to study the characteristics of concern in the population.

Sample distribution

A frequency distribution of all the elements of an individual sample.

Sample population

The population from which the sample is obtained.

Sample space

The collection of all possible outcomes of an experiment.

Sampling

The method of selecting a specified portion, called a sample, from a population, from which information concerning the whole can be inferred.

Sampling distribution of the proportion

A frequency distribution of the proportions of many samples drawn from a particular population. It is normally distributed.

Sampling distribution of the sample means

A frequency distribution of the means of many samples drawn from a particular population. It is normally distributed.

Sampling distribution of the sample statistic

The probability distribution associated with the various values that the statistic could assume in repeated sampling.

Sampling error

The estimated inaccuracy of the results of a study when a population sample is used to explain behavior of the total population.

Sampling fraction

The proportion of the number of sample elements to the number of population elements.

Sampling frame

A listing of all elements in the sampled population.

Sampling interval

Taking a given number of units equally selected over the full population of study. The n th number interval is derived by dividing the total number of units by the sample number desired. Also known as n th selection or interval.

Sampling unit

The elements available for selection at during the sampling process.

SAQ (self-administered questionnaire)

A questionnaire completed with no interviewer involvement.

Scale

A closed-ended question for measuring attitudes. A set of symbols or numbers so constructed that the symbols or numbers can be assigned by a rule to the individual (or their behavior or attitudes) to whom the scale is applied.

Scaled-response questions

Multiple choice questions in which the choices are designed to capture the intensity of the respondent's answer.

Screener

Questions used to screen for appropriate respondents.

Secondary data

Data that has been previously gathered.

Secondary research

Analyzing information from previously conducted research projects. See also primary research.

Sectional center facility (SCF)

Geographic areas represented by the first three digits of a ZIP code.

Segment

Portion selected on the basis of a special set of characteristics.

Selection

Process of choosing records using specific criteria from a population.

Selection bias

Systematic differences between the test group and control group because of a biased selection process.

Selection error

Error that results from following incomplete or improper sampling procedures.

Selective perception

The ability of a listener or reader to filter out some information for conscious or subconscious reasons.

Selective research

Research to choose among several viable alternatives identified by programmatic research.

Semantic differential

A method of examining the strengths and weaknesses of a product or company versus the competition by having respondents rank it between dichotomous pairs of words or phrases that could be used to describe it; the mean of the responses is then plotted in a profile or image. See also Likert scale.

Sentence and story completion

Tests in which the respondent completes sentences or stories in their own words. The purpose of this technique is to enable participants to delve into certain areas that they may otherwise find difficult to discuss.

Sequential testing

A testing procedure in which a respondent tries one product, evaluates it, then tries and evaluates a second product.

Sex ratio

The number of males per 100 females in a population.

Shopper patterns

Drawings that record footsteps of a shopper through a store.

Short census form

U.S. Census Bureau questionnaire that all Americans answer every 10 years.

SIC (standard industrial classification)

Classification (in a four-digit code) of business as defined by the U.S. Department of Commerce. Pseudo SICs are SIC modifications which add a fifth or sixth character to allow for greater specificity.

Sigmoid curve

The S-shaped relationship that allows the dependent variable to tend to 100 percent or 0 percent rather than actually get there. More lifelike than a straight line in regression but harder mathematics.

Significant difference

In mathematical terms, difference between tests of two or more variables. The significance difference varies with the confidence level desired.

Sign-out sheets

A control document used by a facility to keep track of co-op payments to participants.

Simple random sample (SRS)

A sample selected in such a way that every element of the population has a known and equal chance of being chosen for the sample. Also called random sample.

Simulated sales test

A procedure designed to estimate a product's sales potential by simulating trial and use conditions of the marketplace.

Simulated test market (STM)

Alternative to traditional test market; survey data and mathematical models are used to simulate test market results at a much lower cost.

Single-number research

Placing too much emphasis on a single statistic.

Site evaluation

Determining, through an analysis of a given area's demographic and economic characteristics, whether it offers a good market for a product or service.

Skewed

A distribution whose frequency curve has one tail longer than the other - not symmetrical about its mean. If the left tail is longer than the right, it is called skewed left.

Skip pattern

Requirement to pass over questions in response to respondent's answer to a previous question.

Snowball samples

Samples in which selection of additional respondents is based on referrals from the initial respondents.

Social indicator

A numerical measure of the quality of life.

Solomon four-group design

Research using two experimental groups and two control groups to control for all extraneous variable threats.

Spearman rank-order correlation

Correlation analysis technique for use with ordinal data.

Specialized service or support firms

Companies that handle a specific facet of research, such as data processing or statistical analysis, for many corporate clients.

Specifications

The criteria for participants in a focus group, involving their demographic characteristics, product usage, product awareness, and so on.

Split-half technique

Method of assessing the reliability of a scale by dividing into two the total set of measurement items and correlating the results.

Spurious association

Another variable or variables may cause changes in the dependent variable.

Stability

Lack of change in results from test to retest.

Standard deviation

The positive square root of average squared distance of the population or sample values from the mean. It is the most widely accepted measure of dispersion.

Standard error

The standard deviation of a distribution of sample means; the square root of the variance of the sampling distribution.

Standard Metropolitan Statistical Area (SMSA)

An outdated U.S. Bureau of Census term for an area consisting of one or more counties around a central urban area.

Standard normal distribution

A normal distribution with a mean of zero and a standard deviation of one.

Stapel scale

A scale, ranging from +5 to -5, that requires the respondent to rate how close and in what direction a descriptor adjective fits a given concept.

Starting point

The first number selected of an Nth sampling interval.

State data center

An organization within a state, generally a planning agency, university, or library, to which the Census Bureau furnishes products, training in data access and use, technical assistance, and consultation.

Static-group comparison

Pre-experimental design that uses an experimental and a control group. However, subjects or test units are not randomly assigned to the two groups and no premeasurements are taken.

Statistic

A numerical quantity calculated from observations in a sample.

Statistical control

Adjusting for the effects of confounded variables by statistically adjusting the value of the dependent variable for each treatment condition.

Statistical inference

Drawing conclusions about populations based on a sample.

Statistics

The science of collecting data, organizing or describing it, and ultimately drawing conclusions from it.

Stochastic fancy

Phrase for random or chance.

Strata

Segments of the population.

Strategic partnering

The alliance of two or more marketing research firms with unique skills and resources.

Stratified random sample

Probability samples that force sample to be more representative of the population. It is obtained by dividing the population into groups called strata, then simple random samples are taken from each of the strata.

Structured observation

A study in which the observer fills out a questionnaire form or counts the number of times an activity occurs.

Stub

The responses to the question being tabulated, which run vertically down the left side of a computer table.

Sub-block

Along with enumeration districts, the smallest segment of the country for which the U.S. Bureau provides demographic data.

Subject

The basic element on which the experiment or study is conducted. Also known as a participant, experimental unit, respondent, unit or unit of analysis.

Subjective question

A question that has no prelisted answers which requires the respondent to answer in his or her own words. Also known as open-ended question.

Sum of squares due to regression

The variation explained by the regression.

Sunbelt

The U.S. Census regions South and West.

Supervisor's instructions

Written directions to the field service on how to conduct a survey.

Surrogate information error

Error that results from a discrepancy between the information needed to solve a problem and that sought by the researcher.

Survey objectives

The decision-making information sought through the questionnaire.

Survey research

Research in which an interviewer interacts with respondents to obtain facts, opinions and attitudes.

Syndicated research

Studies in which the sponsoring research company defines the audience to be surveyed and the interval between studies and the questions to be asked. Clients share the same results and costs.

Syndicated service research firms

Companies that collect, package and sell the same general market research data to many firms.

Systematic sample

A procedure that selects every Nth unit (skip interval) of a population until the desired sample size is reached. The starting point should be a random position.

Systemic error

Error that results from the research design or execution.

T

Table of random digits

A table consisting of digits in a completely random order.

Tachistoscope (T-scope)

A device for controlling the intensity and duration of light exposure. Sometimes used in package testing.

Target population

The population which is being studied.

T-distribution

Occurrence often seen with small samples which results in a distribution similar to the normal distribution but not as peaked.

Telephone areas

Area codes and three-digit prefix calling areas.

Telephone focus groups

A qualitative research methodology in which seven to 10 people are connected in a telephone conference call and a trained moderator leads them through a discussion about a particular topic. Basically a focus group that is conducted via conference calling.

Telephone sample

A group of individuals who are surveyed by telephone.

Television market

The two firms which measure TV audiences, Arbitron and NPD/Nielsen, have slightly different definitions of television markets(media markets), based on sampling, etc. Arbitron's TV markets are called Areas of Dominant Influence (ADIs), while Nielsen's are Designated Market Areas, or DMAs.

Temporal sequence

Appropriate causal order of events.

Temporary population

Temporary residents of an area such as tourists, commuters, snowbirds, etc.

Test market

Trial market for a new product or service offer.

Test statistic

A statistic, calculated from the sample data which is used to test the hypothesis.

Testing effect

An effect that is a byproduct of the research process and not the experimental variable.

Test-retest reliability

The ability of the same instrument to produce consistent results when used a second time under conditions as nearly the same as possible.

Tests of significance

Tests for determining whether observed differences in a sample are sufficiently large as to be caused by something other than mere chance.

Thematic maps

Computer-generated maps that combine geography with demographic data and company information on sales, etc.

Theory-construction diary

A journal that documents in detail the thoughts, premises, hypotheses and revisions in thinking of a humanistic researcher.

Third-person techniques

Ways of learning respondents' feelings by asking them to answer in the third party; "your neighbor," "most people."

Time series analysis

Any set of data recorded in time intervals. Also called exponential smoothing.

Time use survey

A survey of how people use their time, taken by asking people to record what they do and how they do it in a diary over several days or weeks.

Topline

Preliminary results from a project, usually showing responses of the total sample to a few key questions.

Touch tone aided telephone interviewing (TATI)

Interviewer-administered telephone surveying in which the respondent uses the touch-tone buttons of his or her phone to provide answers. Also known as touch tone data entry (TDE).

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Tracking

Studies repeated over time to monitor changes in a brand or product category.

Trade area

Geographical area from which the customers of a business are drawn; it can be as small as a section of a city or as large as the entire country.

Traffic counters

Machines used to measure vehicular flow over a particular stretch of roadway.

Treatment

The independent variable that is manipulated in the experiment.

Triad

A qualitative research methodology in which a moderator works with three respondents. Some researchers maintain that the limited number of participants in a triad permits the moderator to get more information from them than is possible in a minigroup or full group.

Trial rate

Measures the proportion of people who buy a product at least once.

Trimmed mean

Obtained by trimming a percent of the high and low ends of a distribution and finding the mean of the remaining distribution.

True experimental design

Research using an experimental group and a control group, and assignment of test units to both groups is randomized.

T-test

Hypothesis test about a single mean if the sample is too small to use the Z-test.

Two-way focus groups

A target focus group observes another focus group, then discusses what it learned through observing.

Type I error (A error)

Rejection of a null hypothesis when it is true.

Type II error (B error)

Failing to reject a null hypothesis that is false.

U

Unbiased estimator

When the sampling distribution of a statistic has a mean equal to the parameter being estimated.

Unbiased samples

Samples obtained from sample designs in which there is no bias and all sampling error comes from random sources.

Unidimensional scaling

Procedures designed to measure only one attribute of a respondent or object.

Union

The event containing all simple events for both event A and event B. The concept of union can be extended to more than two events.

Unipolar

An ordinal scale with one positive end and one negative end.

Unit of analysis

The basic element on which the experiment or study is conducted or from which data are collected. Also known as the respondent, participant, unit, subject or experimental unit.

Univariate data set

A data set in which one measurement (variable) has been made on each respondent.

Universe

The set of all the units from which a sample is drawn. Also called the population.

Unstructured observation

A study in which the observer simply makes notes on the behavior being observed.

Unstructured segmentation

Process of segmenting a market using data and analysis when no prior ideas are held about the number of segments, what they are, or how and why they are different.

Urban population

As defined by the 1980 census, all persons living in urbanized areas and in places of 2,500 or more inhabitants outside urbanized areas.

Urbanized areas

A central city or cities and the surrounding (contiguous) closely settled territory. Must have at least 50,000 inhabitants.

V

Validation

The process of ascertaining and recontacting respondents to confirm that interviews were conducted correctly.

Validity

Whether what we tried to measure was actually measured.

Variability

Differences in the measurement of variables.

Variable

Any characteristic that can be measured on each unit of the population.

Variance

The measure of the variability of the variable. The statistical measure of how similar a population is in a characteristic being studied. It is the average squared distance of all measurements from the mean.

Verbatim

A transcript of the actual comments participants make in a focus group. Many moderators include verbatims in their final reports to support their interpretation of the finding.

Video focus groups

Focus groups conducted using satellite video technology in which participants are located in different places, normally in different countries. Also called global focus groups.

Viewing room

The room from which client personnel observe and listen to focus group proceedings through a one-way mirror. Also called the observation room or back room.

Virtual reality (VR)

An artificial environment that is experienced through sensory stimuli provided by a computer, it is one of the latest technologies to be applied as a tool in experimentation.

Voice pitch analysis

The study of changes in the relative vibration frequency of the human voice to measure emotion.

W

Weighting

Assigning a numerical coefficient to an item to express its relative importance in a frequency distribution.

Winsorized sample

A sample in which the trimmed values are replaced with the values that were next in line for trimming.

Word association tests

Tests in which the interviewer says a word and the respondent must mention the first thing that comes to mind.

Working phone rate

The number of working or assigned residential telephone numbers as a proportion of the entire sample.

Write-down

The process of having participants write down their views on a topic during a focus group. Moderators use write-downs to get participants to commit to their point of view before other participants can influence them.

Z

ZIP +4

Designation by the U.S. Postal Service for the nine-digit coding structure.

ZIP code

Registered trademark of the U.S. Postal Service; a five-digit or nine-digit code identifying regions in the United States.

ZIP code demographics

The demographic characteristics of a population living in a particular ZIP code.

Z-test

Hypothesis test about a single mean if the sample is large enough and drawn from a normal population.

A small sample uses a T-test/