

IBM SPSS Text Analytics for Surveys

Easily make your survey text responses usable in quantitative analysis



Highlights

- Identify major themes without reading responses word for word.
 - Distinguish between positive and negative comments easily.
 - Use pre-built categories for customer, product and employee satisfaction surveys.*
 - Create categories more quickly and categorize responses more consistently.
 - Save money by eliminating or reducing your reliance on outside services.
 - Save time—and make results more consistent—by re-using categories in ongoing or similar surveys.
 - Increase satisfaction with survey results.
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The words people use to answer a question tell you a lot about what they think and feel. That's why you include open-ended questions in your surveys. They provide more varied and detailed information than closed-ended questions do. Traditionally, categorizing survey text responses has been time-consuming, tedious and expensive, often limiting your ability to unlock the full value of these responses.

With IBM® SPSS® Text Analytics for Surveys, you can quantify text responses for analysis along with other survey data—thoroughly, reliably and quickly. And SPSS Text Analytics for Surveys is easy to use—even if you haven't performed text analysis before. It automates the process, while still allowing you to intervene manually to refine your results. You never lose control of the categorization process.

Use SPSS Text Analytics for Surveys to categorize text responses whether you conduct surveys to support decision making in business, education or government or as part of your academic research. No matter your field, you now have a way to combine your qualitative and quantitative analyses using one advanced but easy-to-use desktop software program.

An efficient way to make text responses count

IBM SPSS Text Analytics for Surveys is an ideal tool for categorizing text responses and quantifying customer, employee or student satisfaction, so you can integrate the new results for analysis with the rest of your data.

Specifically designed for survey text, this product is based on our automated natural language processing (NLP) software technologies. These technologies analyze text as a set of phrases and sentences whose grammatical structure creates a context for the meaning of the response. Without having to read responses word for word, you can identify major themes and distinguish between positive and negative statements.

*An exclusive feature of the English-language version.



Using this software, you can automate the creation of categories and categorization of responses to transform unstructured survey data into quantitative data.

SPSS Text Analytics for Surveys is a stand-alone program that works well with IBM SPSS Statistics and other IBM SPSS products that you might already use, including IBM SPSS Custom Tables and software from the IBM SPSS Data Collection family. You can also use it with Microsoft Excel.

Two versions of SPSS Text Analytics for Surveys are available for separate purchase: one for analyzing English, Dutch, French, German and Spanish survey text; and a second for analyzing Japanese text. The English-language version also includes an interface that supports third-party translation options purchased separately.

Easy to use and control

SPSS Text Analytics for Surveys is simple to use. First, you import your text responses. The Project Wizard walks you through set up, so you can quickly import your text responses, extract concepts, and obtain initial results. Extraction results are displayed as lists of terms, types and patterns.

- Terms are single or compound words.
- Types are groups of similar terms—positive or negative comments, for example.
- Patterns are a combination of either terms and types or types and types—such as qualifiers and adjectives that reveal opinions about a particular subject.

Onscreen, you see the extracted terms, types or patterns, as well as the text responses. You can create categories in several ways:

- Automatically—Use one of the pre-built sets of categories (for customer, employee or product satisfaction) by using linguistic algorithms, a semantic network* or frequency.
- Manually—Drag terms, types, patterns or responses into particular categories.
- Use a combination of these methods.

It's easy to switch between methods, and it puts you in full control of the categorization process.

Categorizing all responses satisfactorily will probably require manual intervention. You may need to assign and reassign individual responses to categories, as well as create, combine and rename categories. SPSS Text Analytics for Surveys enables you to do this quickly and easily—and at any time—using either drag-and-drop or context menus.

If your organization has pre-existing categories, you can recreate their rules with precision and automate their creation. You can do so by creating conditional rules, using extraction results and Boolean operators. This enables you to categorize responses based on more complex information or filter erroneous responses.

Use the product's visualization capabilities to help manually refine categories. For example, use a bar chart, web graph or web table to quickly reveal which categories contain co-occurring responses. Then you can decide whether to combine certain categories or create new ones that better account for shared responses.

* An exclusive feature of the English-language version.

You can train SPSS Text Analytics for Surveys by categorizing a subset of your text responses, and then importing the entire dataset and re-running the extraction and categorization. For ongoing surveys, you create categories once and then import the newer version of the data into the software for fast, reliable, and consistent categorization.

When you have finished categorizing your responses, your unstructured survey data has been transformed into quantitative data. You can export this data as dichotomies or categories and analyze it with other quantitative data in programs such as SPSS Statistics, SPSS Data Collection or Excel.

SPSS Text Analytics for Surveys makes it easy to work with others. You can share project files—which include extracted results, categories and linguistic resources—across your organization. Additionally, you can share categories by importing and exporting them as an XML file. These features allow others to easily reuse category work in new projects.

Linguistic technologies make the difference

SPSS Text Analytics for Surveys extracts concepts and categorizes text responses without any customization. You can, however, customize some of the product's dictionaries to refine extraction results. This makes the categorization process operate more smoothly. For example:

- To indicate that certain product names belong in the same product line, modify the Type Dictionary.
- To extract and group industry- and domain-specific terms, add these terms to the Type Dictionary.
- To indicate that variant forms of the name of a chemical, gene or medicine, for example, refer to the same thing, modify the Substitution Dictionary.
- To prevent a “noise” term, such as your organization's name, from cluttering extraction and category results, modify the Exclude Dictionary.

New features

The latest edition of SPSS Text Analytics for Surveys can now build and work with hierarchical category structures (categories that contain subcategories). This helps you capture more detail and a more realistic representation of how concepts are organized.

This edition also includes 64-bit operating system support for the Japanese language version to improve performance when working with larger data files.

These enhancements build on new features added in previous releases, which include:

- Additional TAPs to help analyze thoughts and feelings about advertising, about banking services and about brands.*
- A semantic network (along with linguistic algorithms) that lets you automatically create categories and categorize responses.
- An IBM SPSS semantic network, which supports hundreds of general themes for enhanced category building.*
- Additional libraries for banking, emoticons, finance and slang.

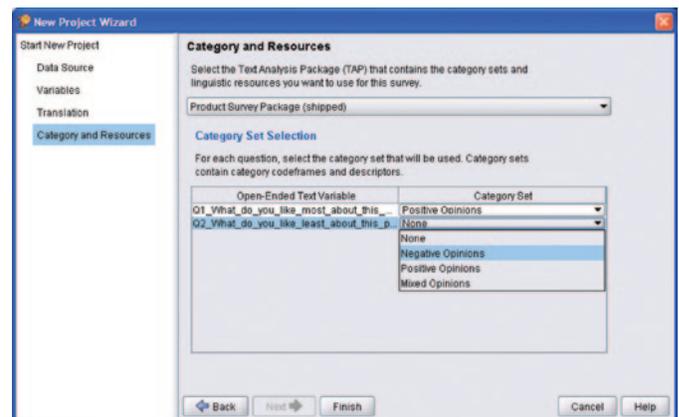


Figure 1: Creating a project is easy using the Project Wizard. The Wizard guides you through the process of selecting a data source, variables and Text Analysis Packages (TAPs) containing pre-built categories and linguistic resources.

* An exclusive feature of the English-language version.

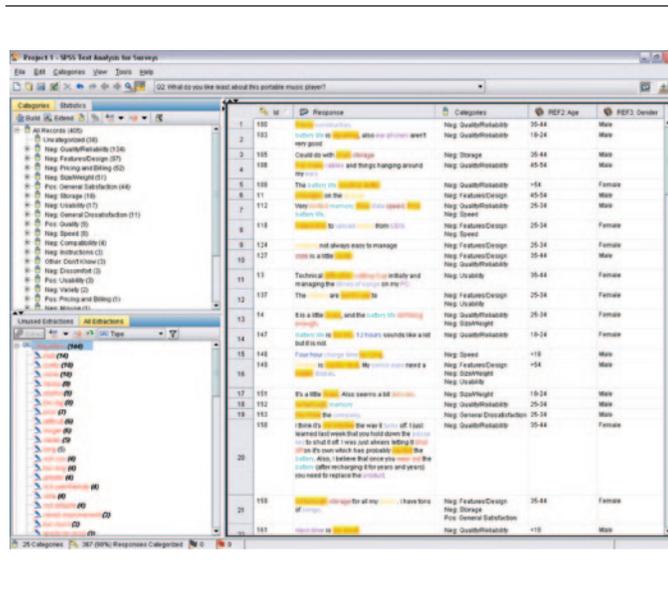


Figure 2: IBM SPSS Text Analytics for Surveys makes the process easy to understand by displaying the text responses in the right-hand pane and extracted concepts in the pane at lower left. Automatic color-coding shows which terms have been extracted and identifies their type.

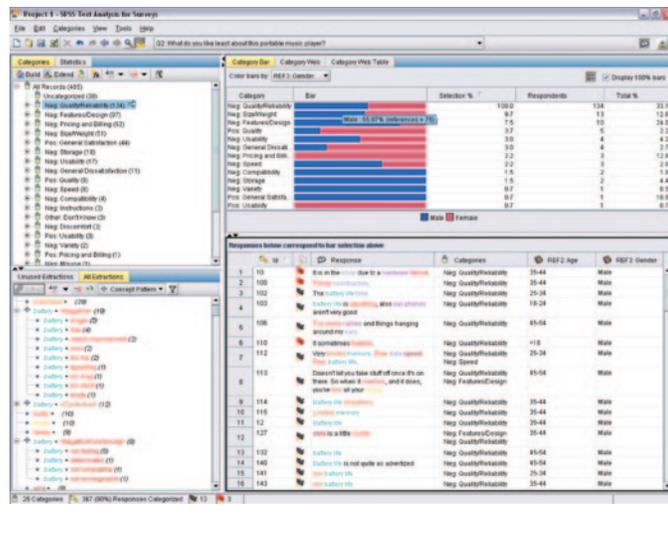


Figure 3: The visualization features in IBM SPSS Text Analytics for Surveys enable you to overlay reference variables, such as gender, onto a bar chart to profile categories. When you click on the blue or “Male” portion of the bar in this example, all responses from males in the category are displayed in the Data pane.

How IBM SPSS Text Analytics for Surveys works

Get reliable results faster with these automated features.

1. Extract key concepts and opinions

Extract key concepts automatically from responses to an open-ended question. The software creates a list of terms, types and patterns. Automatic color coding identifies which terms have been extracted and identifies their type.

2. Create categories and categorize text responses

Automatically create categories and categorize responses using term derivation, term inclusion, a semantic network or frequency. Also, categorize responses manually by dragging terms, types and responses within the interface.

3. Refine categories

Visualization capabilities enable you to quickly see which categories share responses. This can help you to refine categories manually. A web graph showing which categories share responses enables the user to decide whether to combine certain categories or to create new ones that better account for shared responses.

4. Summarize your findings

Quickly and easily create and export a summary bar chart at any point during your project. Use it to communicate to others your top categories. Results can be exported to clipboard or HTML pages to create graphs in your presentations that communicate survey findings.

5. Export results for analysis and graphing

When you are satisfied with your categories, you can export results either as dichotomies or as categories. These can be used to create tables and graphs, either separately or in combination with other survey data. Export results to SPSS Statistics Base to create crosstabs or whatever your analysis requires. Results can also be exported to SPSS Statistics Base to create graphs that communicate survey findings.

“With the introduction and inspired development of IBM SPSS Text Analytics for Surveys, IBM has succeeded where other software vendors have failed. Finally, there is a powerful, intuitive tool that reduces the time needed to analyze large amounts of qualitative data and opens the door to new methods of targeted analysis.”

– Karl Buchholz
Executive Vice President, Business Development
Data Specialists Inc.

Features

User interface

- Project Wizard guides business users through the coding process
- View data, create categories and categorize responses in the Text Analysis window:
 - View all open-ended questions and responses in the Project view
 - View responses to a single question in the Question view
- View all responses and reference variables in the Data pane
- View extraction results by term, type or pattern in the Extracted Results pane
- View categories and their contents in the Category pane
- Create conditional rules by using extraction results and Boolean operators in the Conditional Rule pane
- Category rules editor to create new Boolean rules (using wildcards and other syntactical enhancements)
- Profile categories and view response co-occurrence by using a category bar chart, web graph or web table in the Visualization pane
- Use flags in the Data pane to mark which responses are complete and which ones require follow-up
- View and customize linguistic resources in the Directory Editor window

Import data from:

- IBM SPSS Statistics (SAV)
- IBM SPSS Data Collection (MDD)
- Excel (XLS)
- Excel (XLSX) for Office 2007
- ODBC-compliant databases

Translate non-English languages

- Translate non-English languages into English with an automated translation solution from SDL. Requires a license from SDL.

Extract key concepts and opinions

- A Project Wizard makes setup easier
- Extract terms, types and patterns automatically using linguistic resources
- Create categories automatically (or manually if desired for review and refinement)
- Use linguistic algorithms and a new semantic network to automatically create categories and categorize responses
- IBM SPSS Semantic Network supports hundreds of general themes for enhanced category building*
- Create conditional rules to categorize responses by using extraction results and Boolean operators
- Allows the “force-in”/“force-out” of responses into/out of categories without changing the category definition
- Allows extraction results to be saved
- Supports the reuse of categories created in other programs

Create categories

- Use pre-built categories and resources (TAPs) for customer/employee/product satisfaction surveys*
- TAPs are available for analyzing thoughts and feelings about advertising, about banking services and about brands*
- Build and work with hierarchical category structures (categories that contain subcategories)
- Re-use categories created in other programs
- Import pre-existing customer code frames (specific Excel format is required)
- Use linguistic algorithms and a semantic network to automatically create categories and categorize responses
- Category building/classification enhancements to create categories from scratch or to better define existing ones

* An exclusive feature of the English-language version.

- Supports manual review and refinement
- Shows response co-occurrence in categories using visualizations
- Sort your categorized responses by relevance
- “Force-in” an unextracted word or phrase into a category definition and automatically assign responses containing it to that category
- Print category lists and some visualizations
- Re-use categories in future surveys

Refine results

- Categorize responses manually by dragging terms, types and responses within the interface
- Sort categories by relevance
- View response co-occurrence by using a category bar chart, web graph or web table
- Use “flags” to mark responses as completed or to follow-up
- Profile categories by overlaying reference variables onto bar charts
- Print category lists and some visualizations

Export results as dichotomies or categories (in the following file formats):

- IBM SPSS Statistics (SAV)
- Excel (XLS)
- Excel (XLSX) for Office 2007

Share resources and results

- Share project files that contain extracted results, categories and linguistic resources
- Export categories and category definition for use in new projects
- Create and export summary bar graphs of your categories
- Share custom libraries as part of a project file or as a separate file

Dictionaries

- More advanced resources such as non-linguistic entities (phone numbers, dates, amounts of money) are editable for advanced users
- Type Dictionary: Supports the grouping of similar terms (customizable)
- Substitution Dictionary: Contains synonyms to group similar terms under a single target name (customizable)
- Exclude Dictionary: Contains “noise” terms to be ignored during extraction (customizable)

Libraries

- Survey Library: Contains resources related to pattern rules and types, as well as a predefined list of synonyms and excluded terms (proprietary)
- Project Library: Stores dictionary changes for a particular project
- Core Library: Contains reserved Type Dictionaries for Person, Location, Product and Organization
- Budget Library: Contains a built-in type for words or phrases that represent qualifiers and adjectives
- Opinions Library: Contains seven built-in types that group terms for qualifiers and adjectives
- English Variation Library: Contains cases in which certain English-language variations require synonym definitions to group them properly
- Additional libraries are available for banking, emoticons, finance and slang*

System requirements

- Requirements vary according to platform. For details, see ibm.com/spss/requirements
- 64-bit Windows support for Japanese language version.

* An exclusive feature of the English-language version.

About IBM Business Analytics

IBM Business Analytics software delivers actionable insights decision-makers need to achieve better business performance. IBM offers a comprehensive, unified portfolio of business intelligence, predictive and advanced analytics, financial performance and strategy management, governance, risk and compliance and analytic applications.

With IBM software, companies can spot trends, patterns and anomalies, compare “what if” scenarios, predict potential threats and opportunities, identify and manage key business risks and plan, budget and forecast resources. With these deep analytic capabilities our customers around the world can better understand, anticipate and shape business outcomes.

For more information

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