

# > Gain Full Value from Text Responses

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 textured information than closed-ended questions do. Until now, though, it's been time-consuming, tedious, and expensive to code or categorize responses to open-ended questions.

SPSS Text Analysis for Surveys automates this process, while also enabling you to intervene manually to refine your results, keeping you in control of your data.

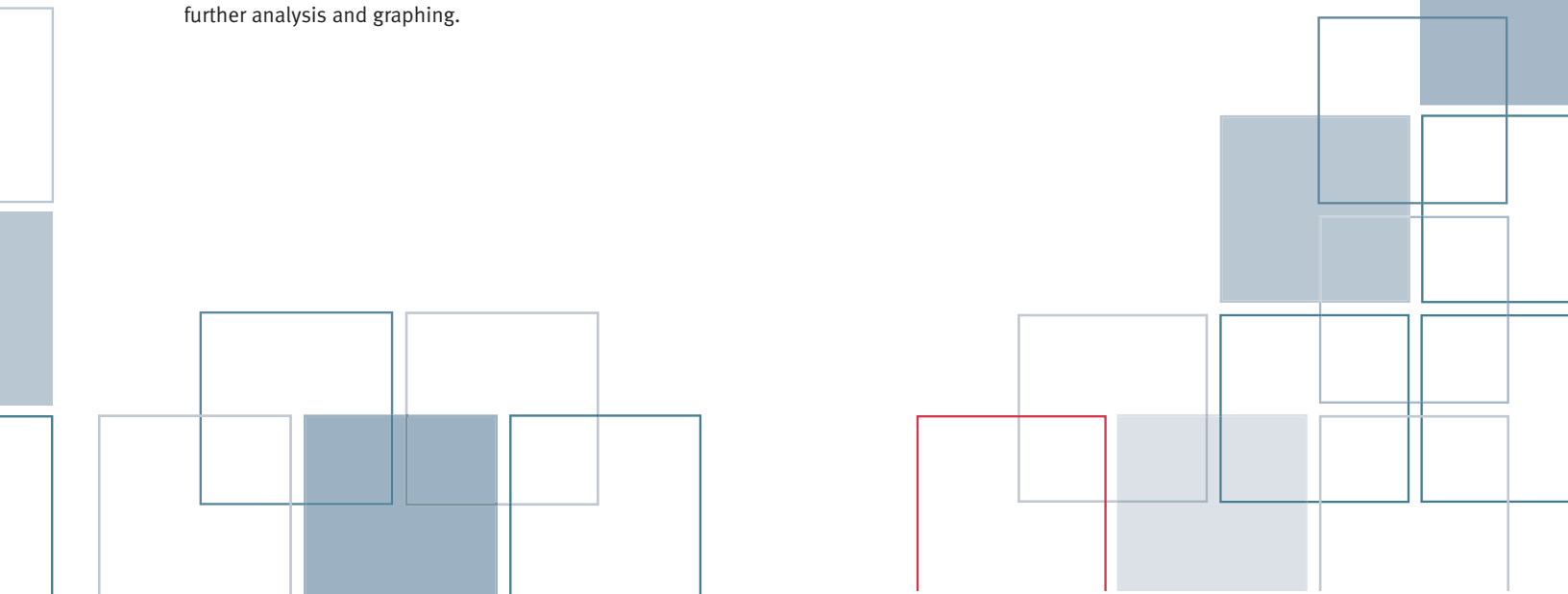
SPSS Text Analysis for Surveys uses proven technologies in computational linguistics and is specifically designed to analyze survey text. With this advanced but easy-to-use desktop software, you save significant amounts of time. More importantly, you can better predict preferences and behavior because you can analyze text responses along with other survey data, thoroughly and reliably.

Categorize hundreds, even thousands, of responses in a fraction of the time it would take to do so manually. Then easily export the results to SPSS® or Microsoft® Excel for further analysis and graphing.

Whether you conduct surveys to support decision making in business, education, or government, or as part of your academic research, you can benefit from SPSS Text Analysis for Surveys. With this product, you and your organization can:

- Gain greater analytical value from your text responses
- Save time by automating the categorization process and simplifying in-house creation of code lists
- Save money by eliminating or reducing the need for outside coding services
- Save time and make results more consistent by reusing categories in multiple surveys
- Improve client satisfaction with survey results

Finally, you can efficiently capture what survey participants say—and quantify it.



### An efficient way to make text responses count

SPSS Text Analysis for Surveys is an ideal tool for categorizing text responses and integrating information obtained from them with the rest of your data analysis.

It uses advanced linguistic technologies that extract and classify key concepts from open-ended questions. These technologies analyze text as a set of phrases and sentences whose grammatical structure provides a context for the meaning of the response. Without having to read all of the responses, you can automatically create reliable, reusable categories. Or you can create and modify categories manually. You gain greater efficiency while retaining complete control of the process.

Create categories either automatically or by using drag-and-drop functionality, and fine-tune them until you are completely satisfied with the results. And do it all in a fraction of the time that other methods require.

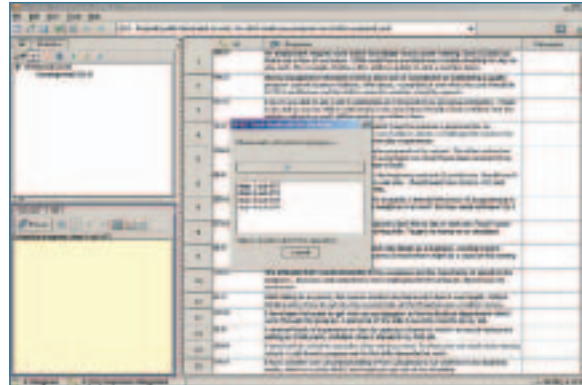
### Easy to use and control

SPSS Text Analysis for Surveys is simple to use. You can import data from SPSS, Excel, or any ODBC-compliant database program. The product's Question View window automatically opens to display your first open-ended question and the responses to it. Then, with the click of a mouse, you initiate the extraction process.

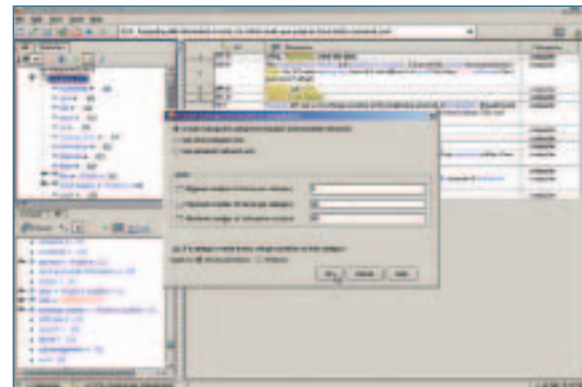
The software extracts terms it deems relevant from the responses and creates lists of terms, types, and patterns.

- Terms include single and compound words
- Types describe related or grouped terms
- Patterns are combinations of types and terms that clarify the meaning of a response, such as whether it is a positive or negative comment

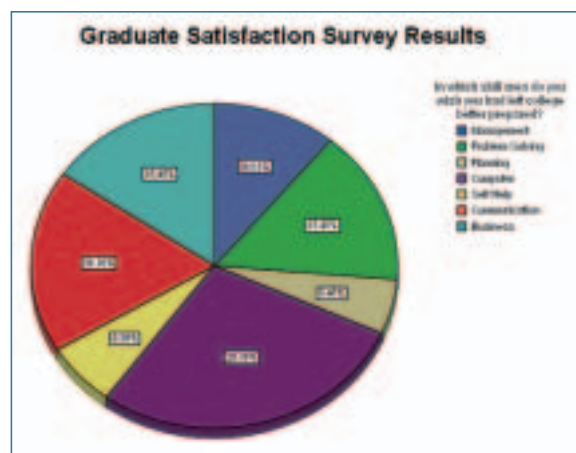
Onscreen, you can see the extracted terms, types, or patterns, as well as the responses. You create categories automatically, based on linguistic algorithms or on frequency of term occurrence, or by dragging terms and types.



This is the Question View window at the start of an extraction. The data pane (center, above) shows the full text of responses to the question. Or you can select the Project View window, which shows all open-ended questions and the responses to each.



After an extraction is run, extracted terms are shown in the pane at lower left (above), categories in the pane at upper left. Positive qualifiers are color-coded purple, negative ones are red. The column at the far right shows into which category or categories each response has been placed.



You can export data as categories or dichotomies, and then analyze and graph results in products such as SPSS (above).

Depending upon the complexity of your responses, completing the categorization process may take several iterations. However, you always remain in control of your data. At each step, you see how many questions have been categorized. You can adjust category hierarchies by dragging terms or types and save categories for reuse in other surveys. Then, to add predictive value to your text data, export dichotomies or categories to be combined with other data for analysis in SPSS or Excel.

### Use advanced categorization methods

SPSS Text Analysis for Surveys uses term inclusion, a powerful categorization method that is based on SPSS Inc.'s LexiQuest™ natural language processing (NLP) technologies. It also makes use of WordNet®, a semantic network developed at Princeton University. You can use these methods separately or in combination. The nature of your survey responses will determine which approach is most appropriate.

You can operate SPSS Text Analysis for Surveys without performing any customization. However, you can customize some of the product's dictionaries to improve performance and provide greater consistency in coding. This is particularly valuable if you conduct follow-up surveys, or a series of surveys on similar topics. For example:

- If you're analyzing surveys for a business, you might modify the Term Dictionary to indicate that certain product names belong in the same product line
- If you're researching a technical topic, you might modify the Substitution Dictionary to indicate that variant forms of the name of a chemical, gene, or medicine refer to the same thing
- You might modify the Exclude Dictionary so that a commonly occurring term, such as the name of your university or company, does not skew the categorization process
- You can embed industry and domain knowledge within SPSS Text Analysis for Surveys by creating and saving Type Dictionaries

You can train the SPSS Text Analysis for Surveys extractor by categorizing a subset of your text responses, then re-running the extraction on the complete set. For ongoing surveys, you can set up categories once, and then feed new data through the software, resulting in fast, reliable, and consistent categorization of your text data.

SPSS Text Analysis for Surveys works with SPSS, Excel, and other products you may already use, including SPSS Data Entry™, SPSS Tables™, and software from the Dimensions™ platform. Currently, SPSS Text Analysis for Surveys is available for analyzing text in English. Additional language versions are planned.

“SPSS Text Analysis for Surveys is exactly what the university has been searching for to extract critical nuggets of information from long text survey responses. Overall, the enhanced insights that SPSS Text Analysis for Surveys delivers will significantly improve the quality of our survey analysis and the decision-making ability of our organization.”

– John Lemon  
Senior Computing Advisor  
University of Aberdeen, Scotland

## Features\*

### User interface

- View data and categorize responses from the Text Analysis windows:
  - Project View window shows all open-ended questions and responses
  - Question View window shows responses to a single question:
    - View responses by categories created
    - View responses by term, type, or pattern
- View and customize linguistic resources from the Dictionary Editor window

### Import data from:

- ODBC-compliant databases
- SPSS (\*.sav)
- Excel (\*.xls)

### Category creation process

- Extracts terms, types, and patterns automatically
- Uses LexiQuest NLP technologies and WordNet
- Supports manual review and refinement
- Allows categories to be saved and reused

### Export data as dichotomies or categories to:

- SPSS
- Excel

### Libraries

- Survey Library: A proprietary library containing resources related to pattern rules and types, as well as a predefined lists of synonyms and excluded terms
- Project Library: A custom library used to store dictionary changes made for a particular project
- Core Library, comprised of reserved Type Dictionaries for:
  - Persons
  - Organizations
  - Locations
  - Products
- Type Dictionaries support the grouping of similar terms (customizable)
- Substitution Dictionaries contain synonyms to help group similar terms under a single term name (customizable)
- Exclude Dictionaries contain terms and types that should be ignored in the extraction process (customizable)

### System Requirements

- Operating System: Microsoft Windows® XP Service Pack 1a, Windows 2000 Service Pack 3, or Windows Me
- Hardware: Intel® Pentium®-class processor
- Memory: 256MB RAM minimum; 512MB recommended
- Available disk space: 150MB minimum; more recommended for larger datasets
- Monitor: 1024 x 768 (SVGA) resolution
- CD-ROM drive for installation
- Web browser: Internet Explorer 6.0 or later for online Help

\* Features subject to change based on final product release.

“I predict that the next 25 years will be to the building and perfection of tools to analyze and understand human language what the last 25 years were to the proliferation and conquest of statistical data.”

– Norman H. Nie

*Research Professor, Department of Political Science, Stanford University  
Chairman and Co-founder, SPSS Inc.*



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