BIG DATA ANALYSIS PLATFORM TEXTOM

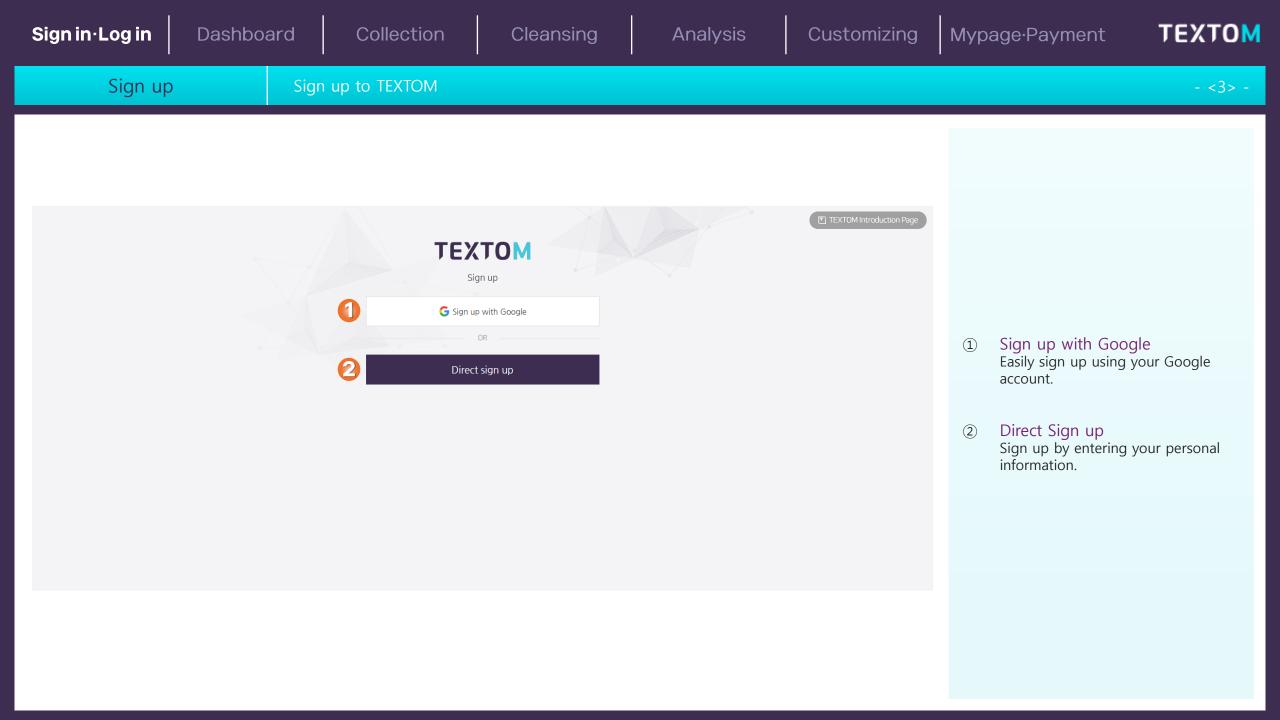
TEXTOM: MANUAL*

TEXTOM

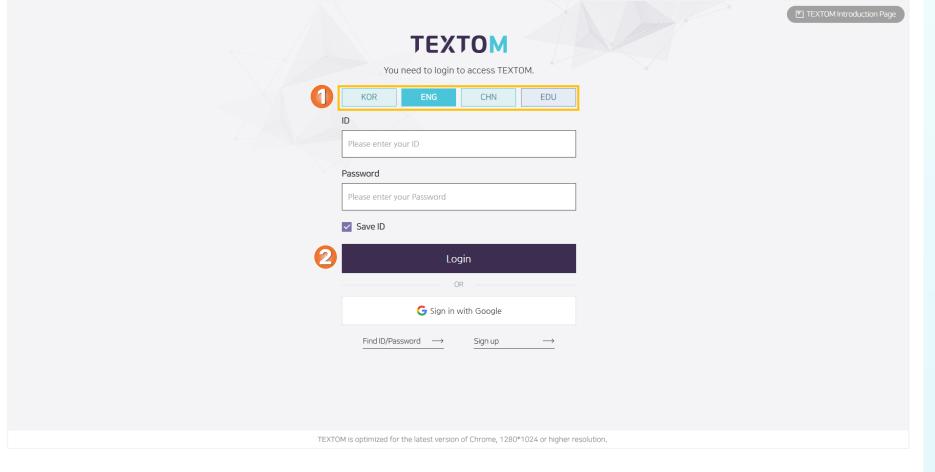
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Collection	→ Click
Refinement	→ Click
Analysis	→ Click
Visualization	→ Click
My page	→ Click



Log in Log in to TEXTOM - <4> -

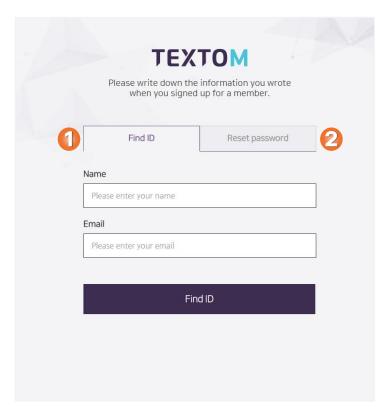


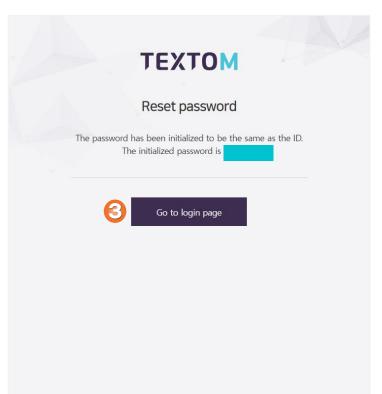
- Select Service
 Log in to the desired service :
 TEXTOM, TEXTOM Global, TEXTOM
 China or TEXTOM Edu.
 - Tip. Existing members can use email authentication to access all three services (Korean, English, and Chinese).
 - Tip. To log in to TEXTOM Edu, you must first have a TEXTOM account.
- 2 Log in with Google You can easily Log in using your Google account.

Log in

Find ID and Password





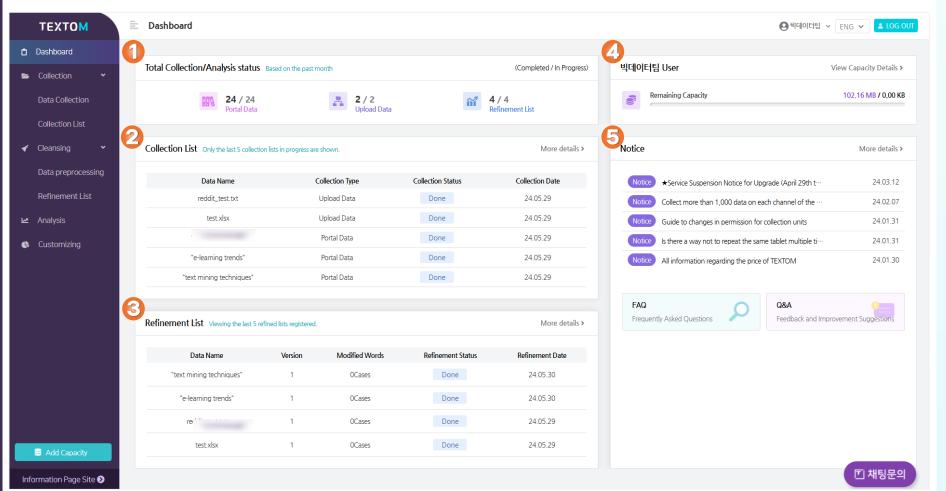


- Find ID
 You can find your TEXTOM ID by name and email.
- Reset password
 You can reset your existing password
 by entering your ID, name and email
 address.
- Reset new password You can reset your password to a new one on the [My Page]-Edit Member Information page. Tip. The reset password will be the same as your current TEXTOM ID.

Dashboards

You can check the overall analysis status.

- <6> ·

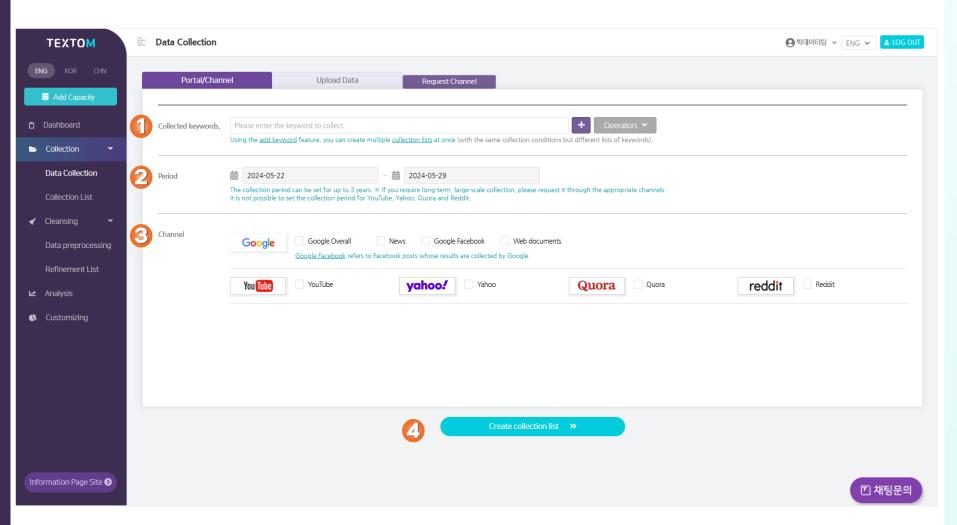


- Total Collection/Analysis status
 The current status of data collection and refinement can be checked for each channel: Portal, Upload Data.
 Tip. Clicking the icon will take you to that page.
- Collection Progress List
 Check the collection progress of the
 last five registered data.
 Tip. Clicking [More details] button will
 take you to that page.
- Data Preprocessing List
 Check the refinement progress of the last five registered data.
 Tip. Clicking [More details] button will take you to that page.
- Remaining Capacity Check the remaining data. Tap [Capacity details] to go 'My page'.
- (5) Notice View service information such as announcements, manuals, and utilization papers.

Collect data from portals/channels.

Collection

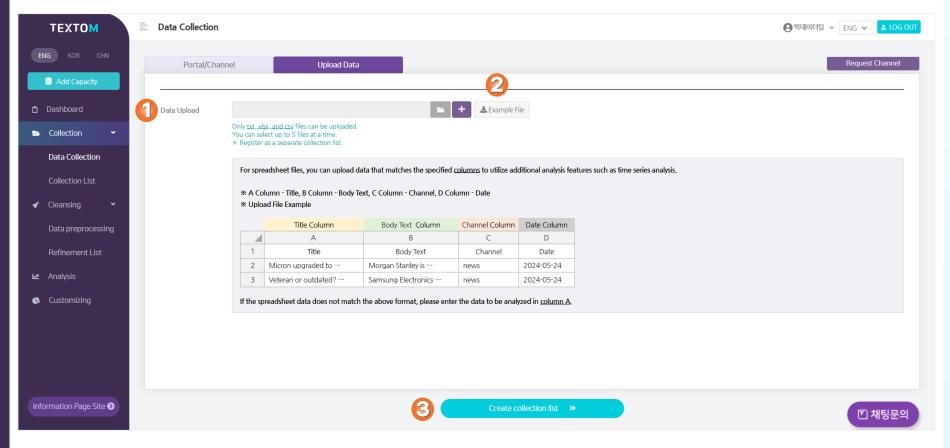




- Collect Keywords
 Enter the keywords you want to
 collect. Use the [+], [-] buttons to
 create keyword sets and **search operators** to improve data quality.
 - Tip. Instead of broad keywords like "economy" and "tourism," use specific ones like "California economy" and "Napa Valley tourism" for better data quality and reduced usage.
- ② Collection Period Set the desired data collection period. Yahoo, Quora, and Reddit do not support setting a collection period.
 - Tip. Set the collection period for up to 3 years. For longer or larger collections, please request through 'Request Channel'.
- ③ Channel Select the collection portal/channel.
 - Tip. If you select Google channel, you cannot collect data alongside other channels. For Yahoo, Quora, and Reddit, please set up separate collection requests.
- Run the data collection according to the selected options.

Upload the data you have.

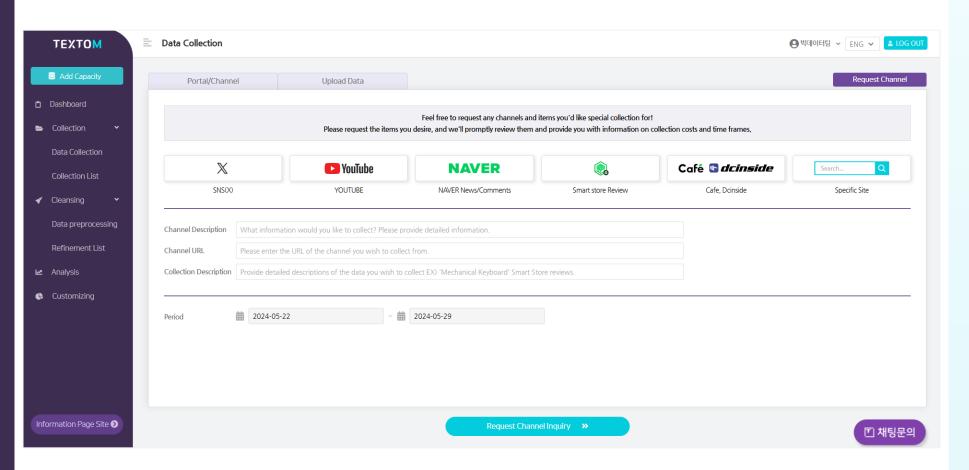




- Data UploadUpload your own data. Click the [+]button to select up to 5 files.
 - Tip. To use additional analysis features like time series analysis, upload Excel files in the sample file format. Otherwise, enter the data for analysis in Column A.
- Sample Format Click the button to download the sample format. Please refer to it and upload your data in the specified format.
- 3 Run the data collection according to the selected options.

Request your desired collection channels here.





Data Collection Request

If you want to collect data outside of the channels provided by TEXTOM, please register as a request channel.

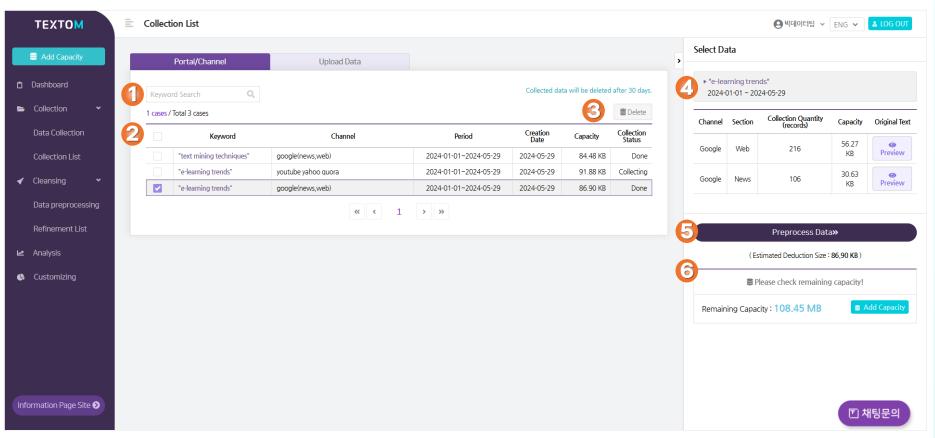
- Based on the contents of the request, we will check whether the data can be collected from the requested site and provide a quotation according to the calculation method.
- The collection method through the request channel is to receive only the collected data or to build it within the request channel page.
- The collected data is delivered as an EXCEL(.xlsx) file or txt file.
- Once built, you can use it in the same way as the existing channels provided in the collection service.

Collection List

Collected data from portals and channels.

Collection

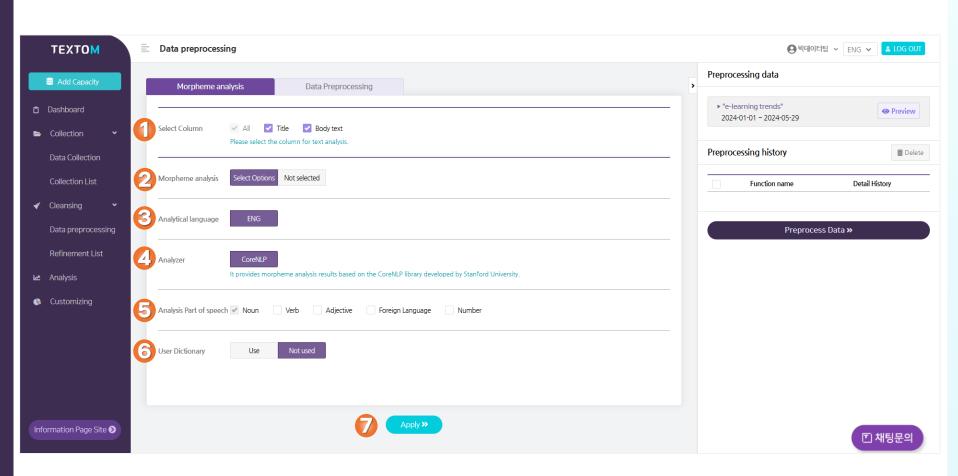
- <10> -



- 1) You can search using keywords.
- View Collected data
 Shows the list of collected data. Click
 the checkbox to view the information
 of the corresponding data in the
 bottom section.
- 3 Delete Data
 Select the checkbox and click the
 [Delete] button to remove the data
 from the collection list.
 - Tip. Data will be automatically deleted 30 days after collection. It is recommended to download the data that the user wants to keep.
- 4 Check Data Information Clicking on the data will show the channel, section, and original text in the preview area.
 - Tip. Previewing the original text helps in filtering spam keywords during the data processing stage.
- (5) Process the data.
- You can check the estimated user usage and residual usage and add usage.

Select the morphological analysis options.

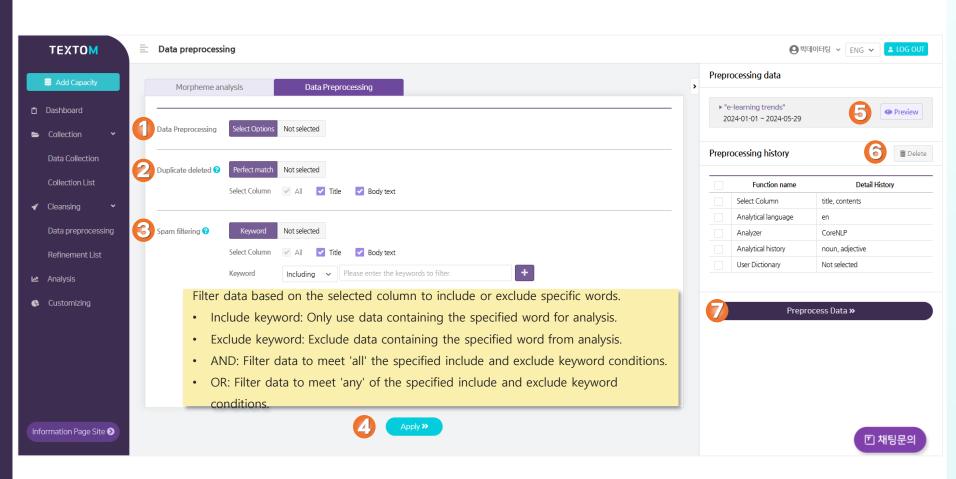




- Select Analysis Column
 Select the column to analyze.
 Tip. Analyze "title" for quick trends;
 analyze entire text for in-depth
 insights.
- Morphological Analysis If you are uploading already processed data or analyzing the raw text as it is, select [Not selected].
- Select a language for analysis.
- 4 TEXTOM provides morphological analysis results based on the CoreNLP library created by Stanford University.
- Select Part-of-Speech(POS) tagging criteria.
 - Tip. Verbs: interaction between subjects Adjectives: sentiment analysis Numbers: proper noun differentiation
- 6 User Dictionary Use the user dictionary for efficient repeated analysis of specific topics or keywords.
 - Tip. Register keywords to refine in the user dictionary first. (My Page -> User Dictionary)
- Olick the [Apply] button to save the selected options in the preprocessing history.

Select the date processing options.

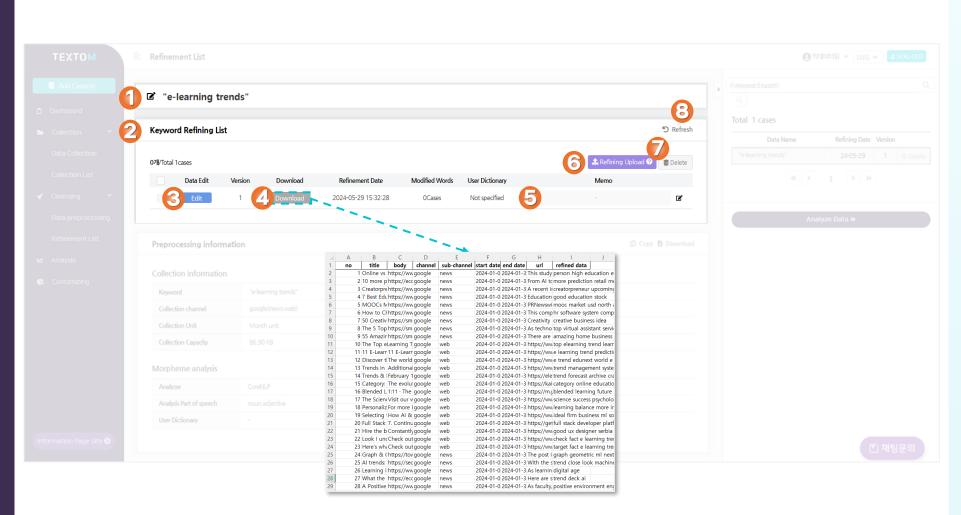




- Data Cleansing Option Selection You can use cleansing features such as duplicate removal and spam filtering.
 - Tip. It is recommended to use these features to reduce data volume and enhance analysis efficiency.
- Duplicate Removal
 Remove duplicate data based on the selected column(s). When multiple conditions are set, identical data within each column will be removed.
- ③ Spam Filtering Filter data using keywords to include or exclude records based on the selected column.
- 4 Click the [Apply] button to save the selected options in the preprocessing history.
- ⑤ Data Preview Preview the data to be analyzed.
 - Tip. Reviewing the original text beforehand aids in spam keyword filtering and helps reduce data usage.
- 6 Check the box and click [Delete] to remove the analysis options.
- Proceed with data preprocessing with the selected analysis option.

Check and manage the keyword refinement status.



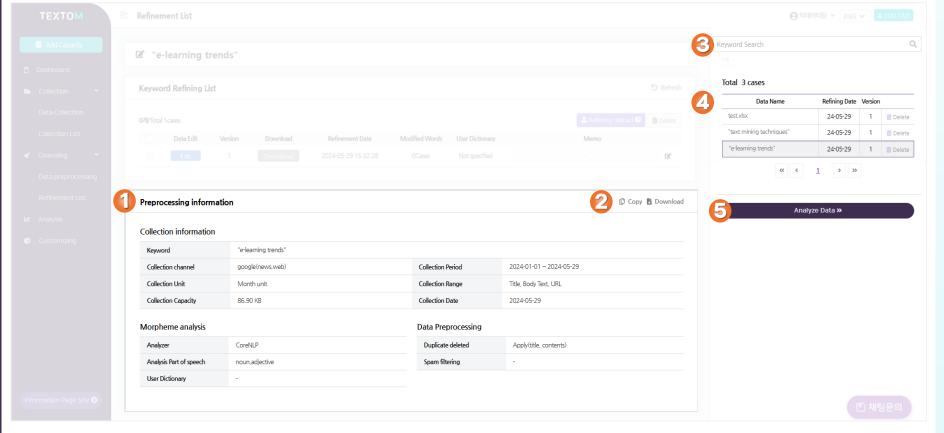


- Click the [Edit] button to modify the data name.
- Keyword Refinement List You can check the history of keyword editing.
- Real-Time Edit
 Correct keywords directly on the web in real time without uploading a file.
- Data Download

 Download an Excel (.xlsx) file with raw data, refined data, dates, and related information.
- Leave a brief note on the refinement version and history.
- Outpload Refined File You can upload a new version by downloading the file in (4) and refining it yourself.
 - Tip: Ensure the file format matches the one downloaded in ④.
- Delete Refinement History Select the refinement history to delete using the checkbox, then click [Delete].
- Refresh
 Checks the refinement status in real time.

Manage the refinement list and data.

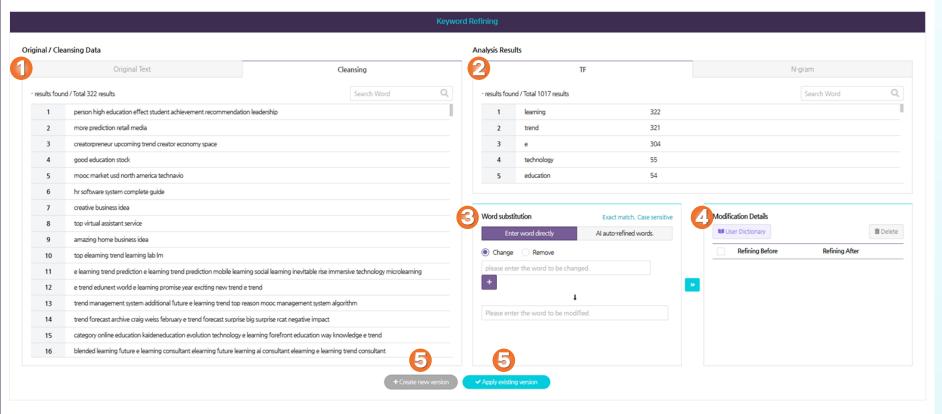




- Processing Information
 View information on data collection and refinement.
- Copy or download the preprocessing information in table format.
- Keyword Search Search the refinement list by keyword.
- Refinement List Management Perform management tasks such as viewing and deleting the refinement list.
- (5) Analysis is performed on the selected data.

Refine keywords directly on web pages, without needing to upload data.

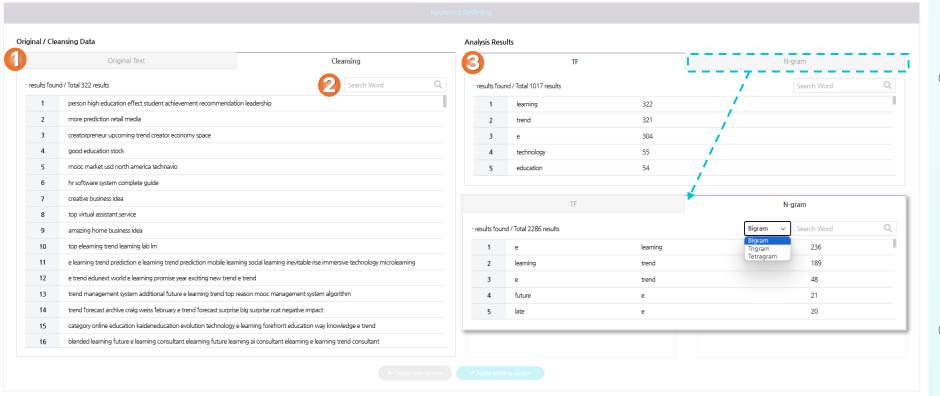




- Raw/Refined Data Tab
 Switch between the raw data tab and the refined data tab to view the data.
- View Analysis Results View TF (Term Frequency) and N-gram analysis results for keyword refinement.
- Edit Keywords Input and change keywords directly or use the [Al automatic refinement words] function.
- 4 Edit History View and delete keyword edit history. Register the current edit history in the user dictionary or load an existing user dictionary.
- S Create New Version Add the edit history to a new version.
- 6 Apply Previous Version Apply the edit history to a previous refinement version.
 - Tip. Once applied, changes cannot be undone. Review edit history and download refined data in advance.

Refine your keywords based on the raw/refined data and the results of your analysis.

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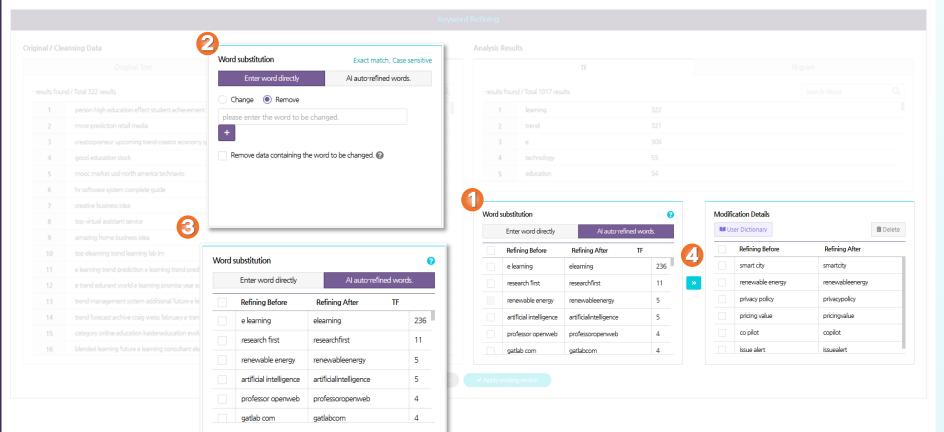


- Raw/Refined Data Tab
 Switch between the raw data tab and the refined data tab to view the data.
- Eyword Search Analyze how specific keywords are used in the raw and refined data, and determine which words are frequently used together with the keywords through N-gram analysis. This can be useful for keyword refinement.
 - Tip. Use this functionality during the data refinement process to verify data connections, linked words, and the outcomes of applied refined keywords.
- View Analysis Result View TF (Term Frequency) and Ngram analysis results.
 - Tip. TF and N-gram analysis results can help adjust, remove, or identify relevant keywords effectively.

Refine keywords using various features.

Collection



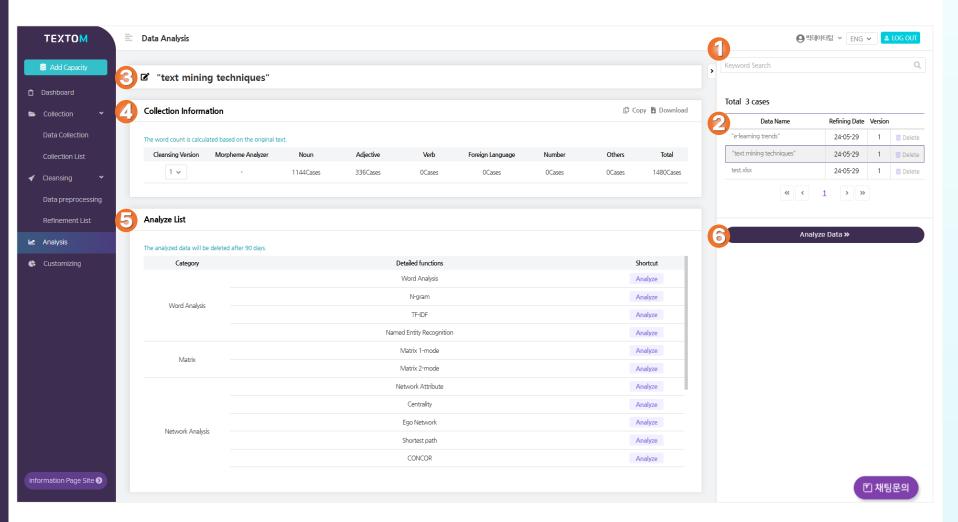


- Direct Word Refinement
 Directly input the word to be
 changed and the replacement word.
 If replacing multiple words with one,
 click the [+] button to add words.
- Keyword and Data Removal Remove specific words from the entire dataset. Add words to remove by clicking the [+] button. To remove data containing specific keywords, select the checkbox.
- Al Automated Refinement Calculate the probability of words appearing consecutively based on Al, recommending up to 200word pairs.
- Apply the changes to the modification history by pressing the button.

View the analysis list and check the details of the data.

Collection

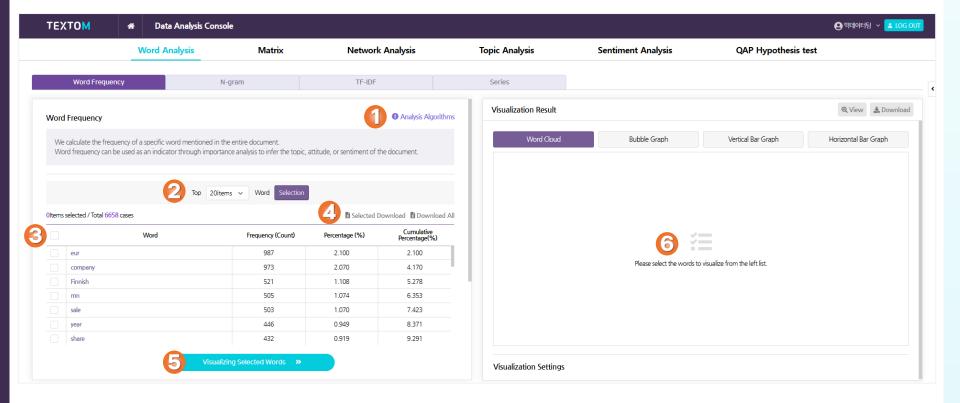




- Search for keywords to view data containing those words.
- Analysis List View and delete data that has been refined. Clicking on specific data displays its information in the left area.
 - Tip. Click the [] button to hide the analysis list window.
- Modify Data Name
 Click the [Edit] button to easily change the data name to your preferred title.
- 4 Analysis Information View the morphological analysis results of the data.
 - Tip. You can select the refined version and copy the analysis information or download it as an Excel (.xlsx) file.
- ⑤ Analysis History Access the analysis results by clicking the "Analyze" button.
- 6 Navigate to the analysis results screen for the selected data.

The results of a Word Frequency (TF) analysis.

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- Analysis Algorithm
 Click the button to view the description of the analysis algorithm.
- Top Words Auto-SelectAutomatically select the top 20, 50,75, or 100 words from all words.
- Word Selection Click the top checkbox to automatically select the top 100 words. To manually select words, use the checkbox next to each word. Tip. The percentage represents the amount mentioned when the total

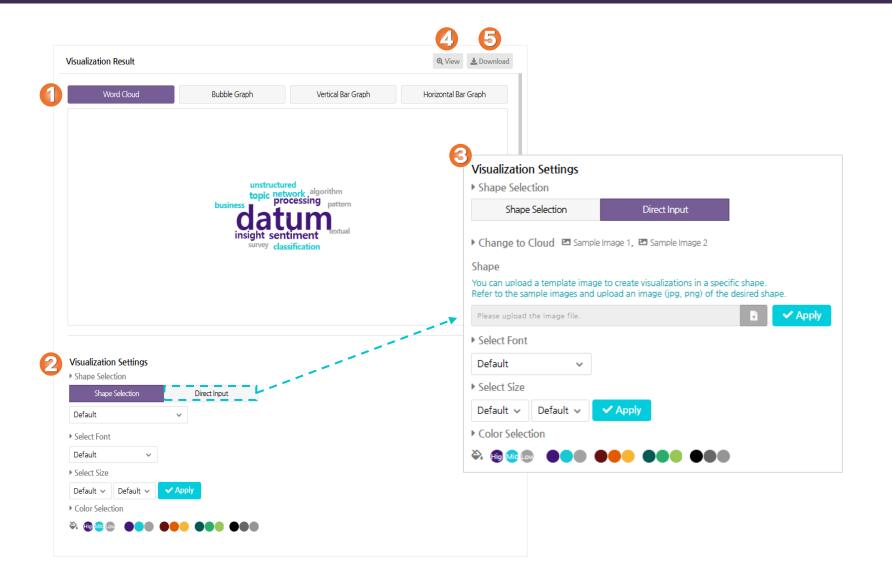
mentions are scaled to 100.

- Download Analysis Results Click [Selected Download] or [Download All] to download word frequencies and percentages into an Excel (.xlsx) file.
- Visualize the selected words.

 Tip. For better visibility, it is recommended to select between 50 to 70 words.
- 6 Displays the visualization results.

Displays the visualization results of Word Frequency (TF).



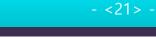


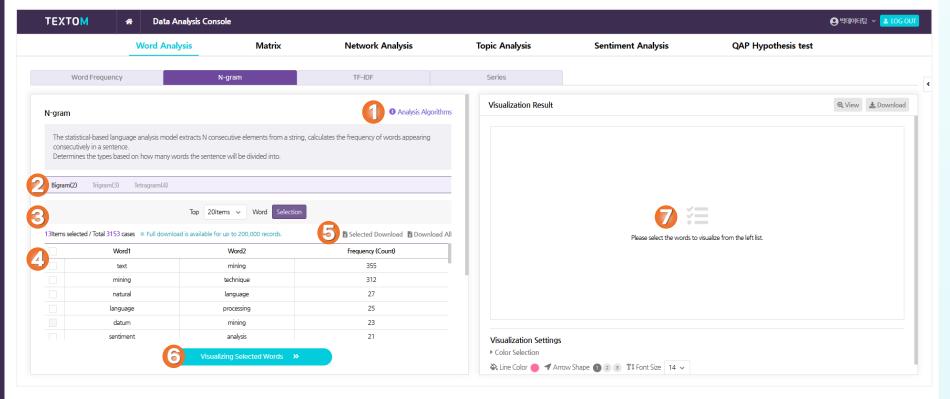
Visualization Results
 Provides four types of visualization results.

Word Cloud	Bubble Chart
Vertical Bar Chart	Horizontal Bar Chart

- ② Visualization Setting Users can modify the attributes of the visualization results as desired.
- ③ Shape Selection (Word Cloud) Enables users to select a specific shape for the word cloud visualization. Tip. Refer to sample images and upload an image of the desired shape.
- Zoom In Click [View] to display an enlarged version of the selected visualization in a pop-up window.
- 5 Download Visualization Download the visualization results as a PNG file.

The results of an N-gram analysis.

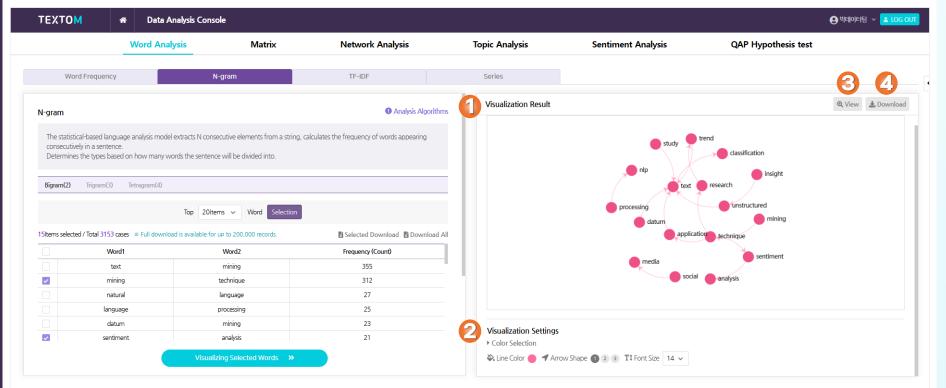




- Analysis Algorithm
 Click the button to view the description of the analysis algorithm.
- Set N-gram Range Select the number of consecutive words from 2 (Bigram) to 4 (Tetragram).
- 3 Top Words Auto-Select Automatically select the top 20, 50, 75, or 100 words from all words.
- N-gram Word Selection Click the top checkbox to automatically select the top 100 words. To manually select words, use the checkbox next to each word.
- (5) Download Analysis Results Click [Selected Download] or [Download All] to download word frequencies and percentages into an Excel (.xlsx) file.
- 6 Visualize the selected words.
- 7) Displays the visualization results

Displays the visualization results of N-gram.

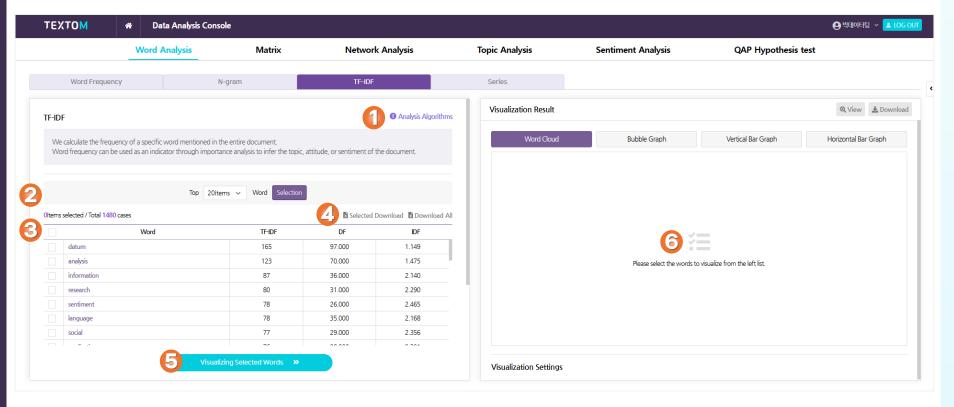
- <22> -



- Visualization Result
 The results are provided as a directional network graph.
 - Tip. It is important to select relevant words according to the analysis purpose, and it is advisable to exclude common words that do not contain relevant information.
 - Tip. You can zoom in and out of the visualization by scrolling the mouse wheel up and down.
- Visualization Setting Users can modify the attributes of the visualization results as desired.
- ② Zoom In Click [View] to display an enlarged version of the selected visualization in a pop-up window.
 - Tip. You can zoom in and out of the visualization by scrolling the mouse wheel up and down.
- 4 Download Visualization
 Download the visualization result as a PNG file.

The results of an TF-IDF analysis.

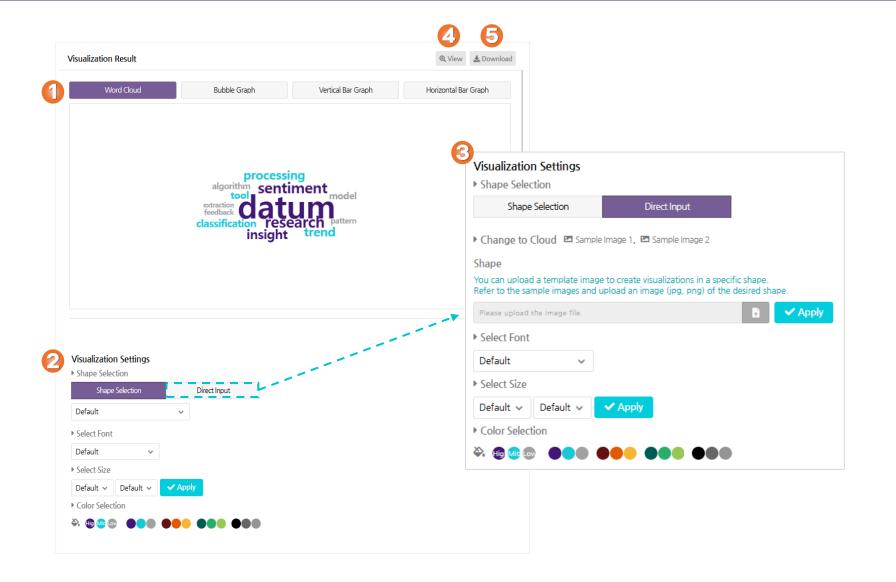




- Selected Algorithm Description Click the button to view the description of the selected algorithm to analyze.
- Top Words Auto-SelectAutomatically select the top 20, 50,75, or 100 words from all words.
- 3 TF-IDF Word Selection Click the top checkbox to automatically select the top 100 words. To manually select words, use the checkbox next to each word. Tip. The higher the TF-IDF value, the more important the word is within a specific document.
- Download Analysis Results Click [Selected Download] or [Download All] to download word frequencies and percentages into an Excel (.xlsx) file.
- (5) Visualize the selected words.
- 6) Displays the visualization results

Displays the visualization results of TF-IDF.





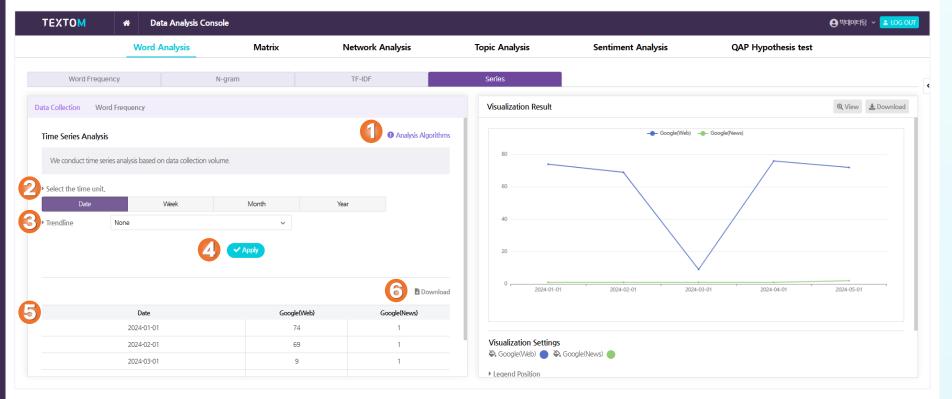
Visualization Results
 Provides four types of visualization results.

Word Cloud	Bubble Chart	
Vertical Bar Chart	Horizontal Bar Chart	

- Visualization Setting Users can modify the attributes of the visualization results as desired.
- 3 Shape Selection (Word Cloud) Enables users to select a specific shape for the word cloud visualization. Tip. Refer to sample images and upload an image of the desired shape.
- 4 Zoom In Click [View] to display an enlarged version of the selected visualization in a pop-up window.
- ⑤ Download Visualization Download the visualization result as a PNG file.

Time Series Analysis – The Result of data collection volume.

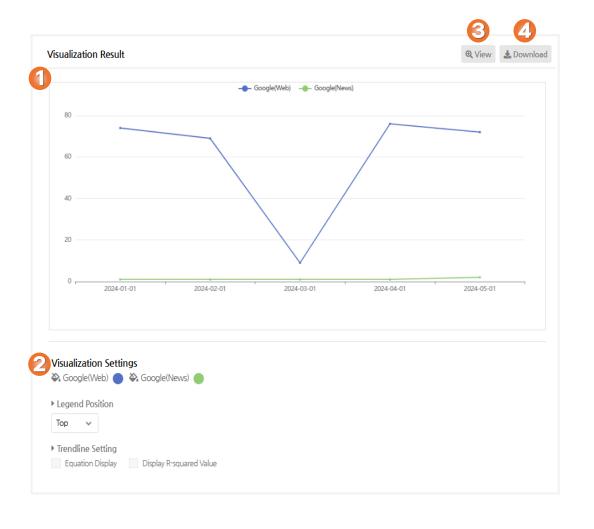
- <25> -



- Analysis Algorithm
 Click the button to view the description of the analysis algorithm.
- Select Time Unit Set the time unit to day, week, month, or year based on the data collection date.
 - Tip. This option is available when the 'Unit Collection' feature is used during the data collection stage. Day: Day, Week, Month, Year Week: Week, Month, Year Month: Month, Year Year: Year
- 3 Display Trend Line Show a linear trend line in the visualization results to easily identify data collection trends.
 - Tip. To display the trend line in the visualization results, ensure you select [Linear].
- 4 Apply the selected options to the time series analysis.
- (5) Display the time series analysis results of the data collection volume.
- 6 Download the analysis result as an Excel (.xlsx) file.

Time Series Analysis – Displays the visualization results of data collection volume.

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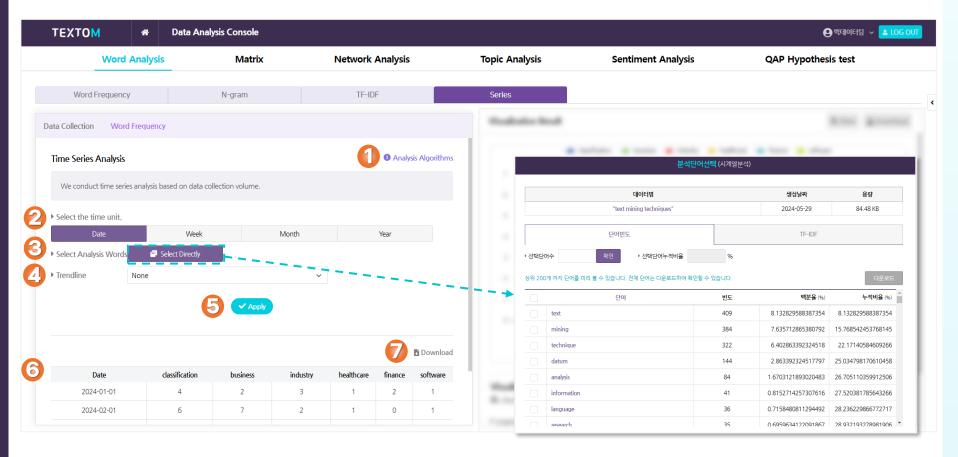


- Visualization Results
 Displays the result of the analysis in a linear graph.
- Visualization Setting
 Users can modify the attributes of the visualization results as desired.
- Zoom In Click [View] to display an enlarged version of the selected visualization in a pop-up window.
- Download Visualization Download the visualization result as a PNG file.

Data Analysis

Time Series Analysis – The Results of Word Frequency (TF) Analysis.

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- Selected Algorithm Description Click the button to view the description of the algorithm.
- Select Time Unit Set the time unit to day, week, month, or year based on the data collection date.
 - Tip. This option is available when the 'Unit Collection' feature is used during the data collection stage. Day: Day, Week, Month, Year Week: Week, Month, Year Month: Month, Year Year: Year
- Select Word for Analysis select 2 to 10 words by clicking the "Select Now" button.
- Display Trend Line Show a linear trend line in the visualization results to easily identify data collection trends.
 - Tip. To display the trend line in the visualization results, ensure you select [Linear].
- Apply the selected options to the time series analysis.
- 6 Display the time series analysis result of the data collection volume.
- Download the analysis result as an Excel (.xlsx) file.

Time Series Analysis – Displays the visualization results of Word Frequency (TF).

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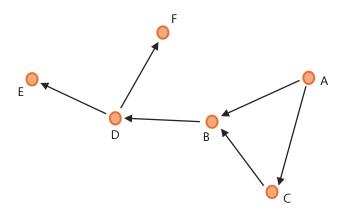


- Visualization Results
 Displays the result of the analysis in a linear graph.
- Visualization Setting
 Users can modify the attributes of
 the visualization results as desired.
- Zoom In Click [View] to display an enlarged version of the selected visualization in a pop-up window.
- Download Visualization Download the visualization results as a PNG file.

Explanation of Matrix Analysis Method.

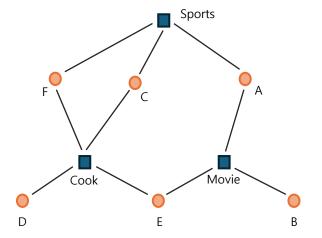
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1-Mode Matrix



	A	В	С	D	E	F
A	0	1	1	0	0	0
В	0	0	0	1	0	0
С	0	1	0	0	0	0
D	0	0	0	0	1	1
E	0	0	0	0	0	0
F	0	0	0	0	0	0

1 2-Mode Matrix



	Sprots	Movie	Cook
A	1	1	0
В	0	1	0
С	1	0	1
D	0	0	1
E	0	1	1
F	1	0	1

Matrix data is analyzed by constructing a matrix of word co-occurrence frequencies.

1-Mode Matrix
 The most common type of network, with rows and columns representing the same words.

Tip. Suitable for analysis when the main node.

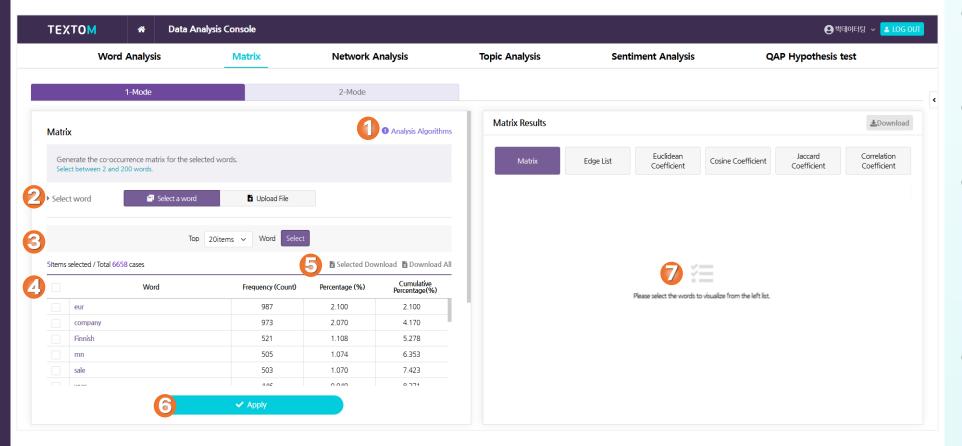
2 2-Mode Matrix

Rows and columns represent different words, allowing for analysis of relationships between different types of entities.

Tip. Suitable for analyzing relationships between different types of entities.

Perform 1-Mode Matrix Analysis.

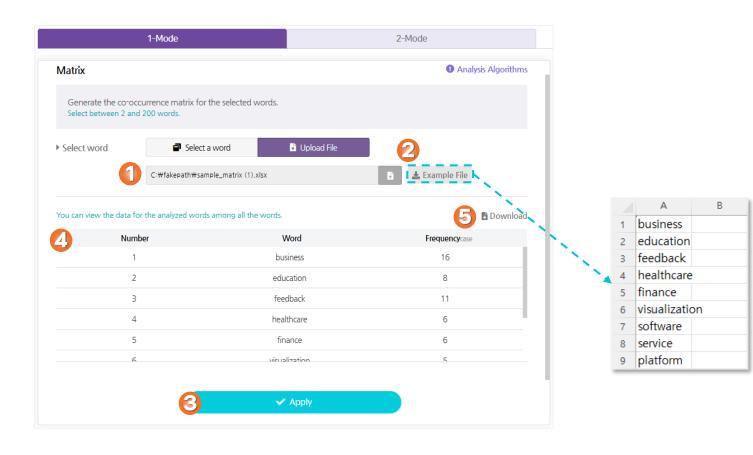
- <30> -



- Selected Algorithm Description Click the button to view the description of the algorithm.
- ② Set Word Selection Method Select 2 to 200 words for analysis. You can choose words directly from the analysis console or upload an Excel file.
- 3 Top Words Auto-Select Automatically select the top 20, 50, 75, or 100 words from all words.
- Word Selection Click the top checkbox to automatically select the top 100 words. To manually select words, use the checkbox next to each word.
 - Tip. Selecting key words related to the analysis topic is crucial. Review the results after the initial selection and adjust as necessary to enhance the accuracy of the analysis.
- Download Analysis Results Click [Selected Download] or [Download All] to download word frequencies and percentages into an Excel (xlsx) file.
- 6 Apply the selected words to the analysis.
- 7) Display the analysis results.

Select words for 1-Mode Matrix Analysis.





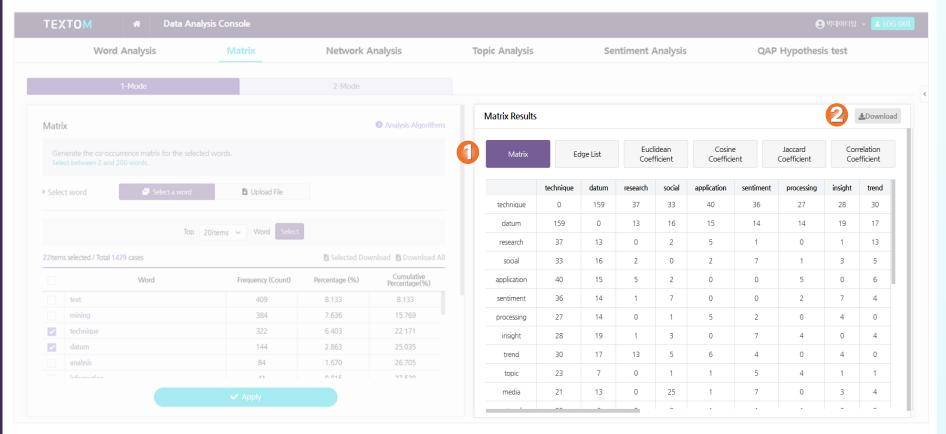
- File Upload Upload an Excel file (.xlsx) containing the matrix word list.
- Sample File Click this button to download a sample format.
- 3 Apply the selected words to the analysis.
- Selected Words Review View the list of words applied to the analysis from the entire word set.
- 5 Download Word List Download the list of words applied to the analysis as an Excel (.xlsx) file.

Cleansing

Matrix

The result of 1-Mode Matrix Analysis.

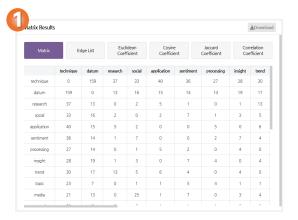


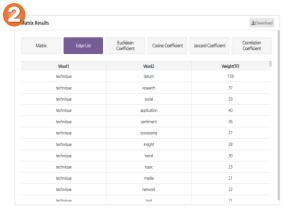


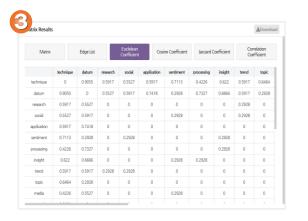
- Matrix Results
 The analysis results are provided using the following six similarity coefficients.
 Click on the analysis name to display the corresponding results below.
 - Matrix
 - Edge List
 - Euclidean Coefficient
 - Cosine Coefficient
 - Jaccard Coefficient
 - Correlation Coefficient
- 2 Download Analysis Result Download the analysis results as an Excel (.xlsx) file.
 - Tip. Theoption to download all analysis results at once is not available.

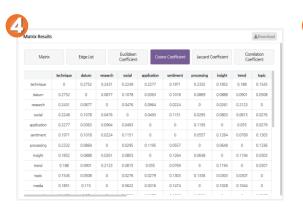
The result of 1-Mode Matrix Analysis.

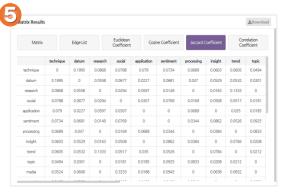
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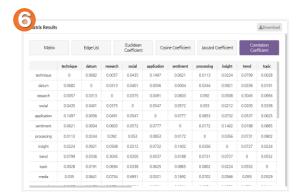












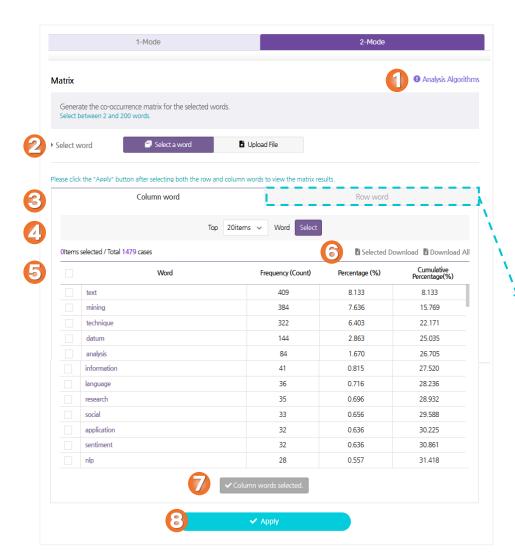
- ① Matrix
 Displays the co-occurrence frequency of selected words within the entire document.
- ② Edge List Shows pairs of selected words (word1, word2) and their frequency (Weight) in a list format.
 - Tip. The option to download all analysis results at once is not available.
- ③ Euclidean Coefficient Measures and provides the similarity between selected words using Euclidean distance.
 - Tip. The smaller the value between two vectors, the more similar they are.
- 4 Cosine Coefficient Calculates and provides the cosine similarity between two words vectors.
 Tip. The coefficient ranges from 0 to 1.
 - Tip. The coefficient ranges from 0 to 1, with values closer to 1 indicating higher similarity between the vectors.
- (5) Jaccard Coefficient Shows the Jaccard similarity between words.
 - Tip: The coefficient ranges from 0 to 1, with higher values indicating greater similarity.

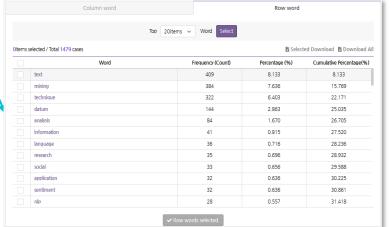
relationship between the two variables.

 © Correlation Coefficient Indicates the correlation between words. Tip: Higher values indicate a stronger

Perform 2-Mode Matrix Analysis.



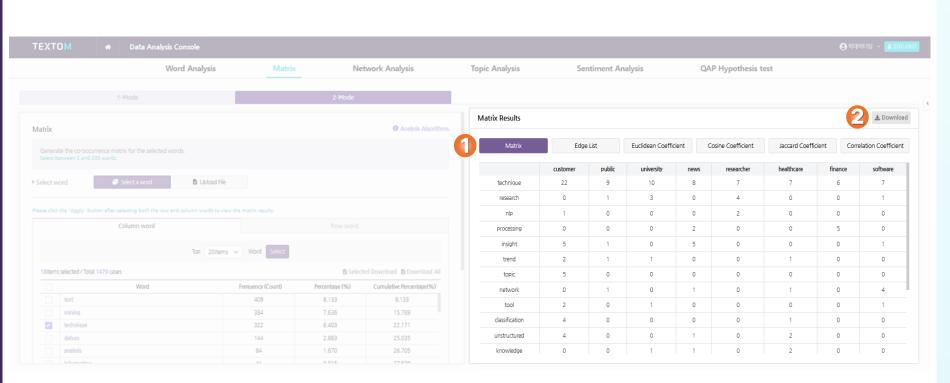




- Selected Algorithm Description Click the button to view the description of the algorithm.
- Set Word Selection Method Select 2 to 200 words for analysis. You can choose words directly from the analysis console or upload an Excel file.
- 3 Select the tab to switch between column words and row words.
- Top Words Auto-Select Automatically select the top 20, 50, 75, or 100 words from all words.
- Word Selection Click the top checkbox to automatically select the top 100 words. To manually select words, use the checkbox next to each word.
 - Tip. Selecting key words related to the analysis topic is crucial. Review the results after the initial selection and adjust as necessary to enhance the accuracy of the analysis.
- © Download Analysis Results Click [Selected Download] or [Download All] to download word frequencies and percentages into an Excel (.xlsx) file.
- After selecting the column and row words, click the [Apply] button to save.
- 8 Display the analysis results.

The result of 2-Mode Matrix Analysis.



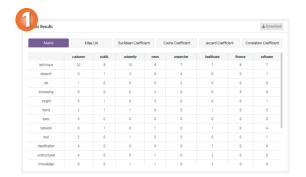


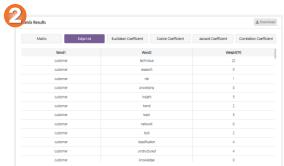
- Matrix Results
 The analysis results are provided using the following six similarity coefficients. Click on the analysis name to display the corresponding results below.
 - Matrix
 - Edge List
 - Euclidean Coefficient
 - Cosine Coefficient
 - Jaccard Coefficient
 - Correlation Coefficient
- 2 Download Analysis Result Download the analysis results as an Excel (.xlsx) file.

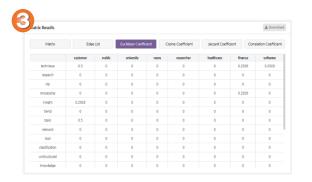
Tip. The option to download all analysis results at once is not available.

The result of 2-Mode Matrix Analysis.

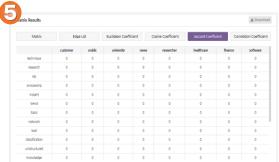
- <36> -

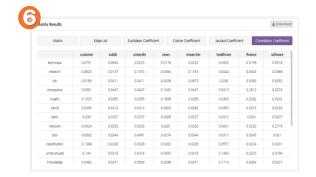












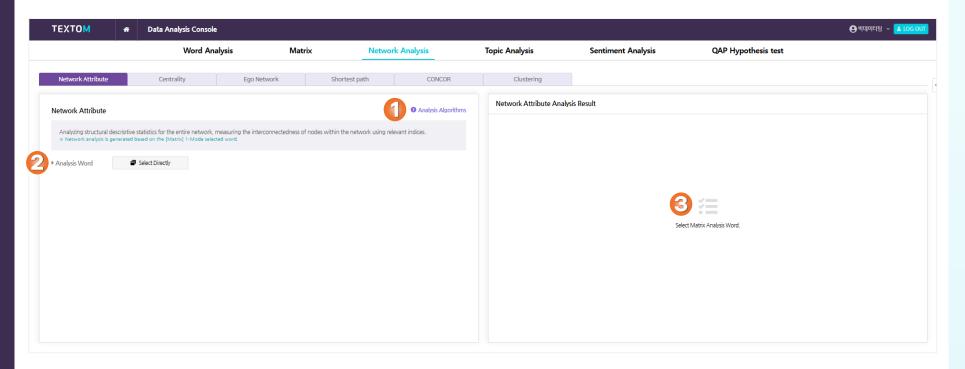
- Matrix
 Displays the co-occurrence frequency of selected words within the entire document.
- ② Edge List Shows pairs of selected words (word1, word2) and their frequency (Weight) in a list format.
 - Tip. The option to download all analysis results at once is not available.
- ③ Euclidean Coefficient Measures and provides the similarity between selected words using Euclidean distance.
 - Tip. The smaller the value between two vectors, the more similar they are.
- 4 Cosine Coefficient
 Calculates and provides the cosine
 similarity between two words vectors.
 - Tip. The coefficient ranges from 0 to 1, with values closer to 1 indicating higher similarity between the vectors.
- (5) Jaccard Coefficient Shows the Jaccard similarity between words.
 - Tip: The coefficient ranges from 0 to 1, with higher values indicating greater similarity.
- © Correlation Coefficient Indicates the correlation between words. Tip: Higher values indicate a stronger

relationship between the two variables.

- <37> -

Network Analysis

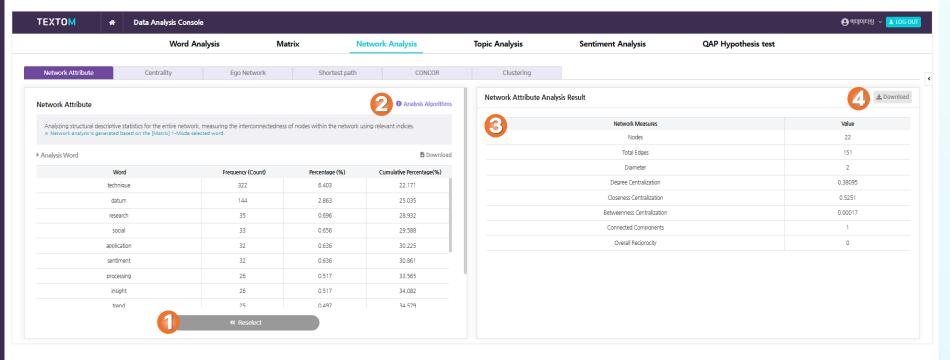
Analyze Network Attribute.



- Selected Algorithm Description Click the button to view the description of the algorithm.
- ② Select word Click [Select Directly] to navigate to the 1-Mode Matrix word selection page and select words for analysis. Tip. A 1-Mode Matrix analysis must be conducted first.
- 3 Display the analysis results.

The result of Analyze Network Attribute.

- <38> -



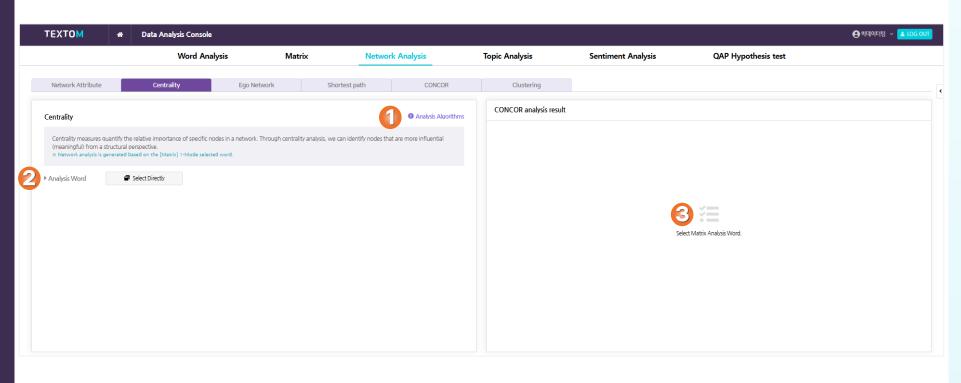
- Reselect Words
 Click [Reselect] to navigate to the
 1-Mode Matrix word selection page
 and reselect words for analysis.
- Download Analysis Words
 Download the selected words as an
 Excel (.xlsx) file.
- ③ Network Attribute Analysis Results Calculate eight types of structural property metrics for the 1-Mode Matrix.

Nodes	
Total Edges	
Diameter	
Degree Centralization	
Closeness Centralization	
Betweenness Centralization	
Connected Components	
Overall Reciprocity	

4 Download Analysis Result Download the analysis result as an Excel (.xlsx) file.

Perform Centrality Analysis.

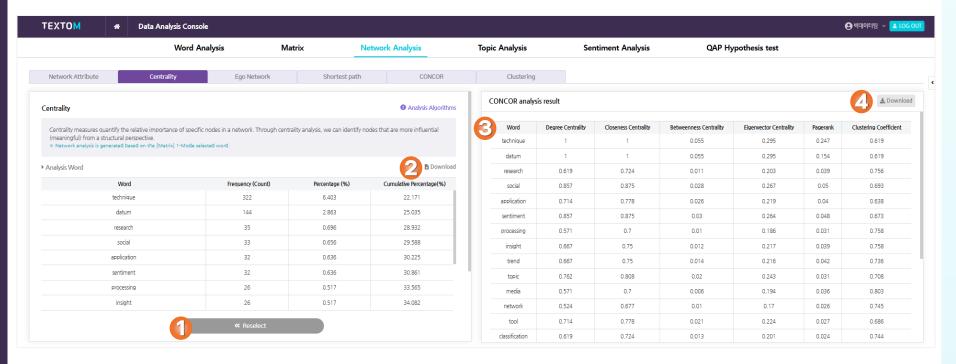




- Selected Algorithm Description Click the button to view the description of the algorithm.
- Select word Click [Select Directly] to navigate to the 1-Mode Matrix word selection page and select words for analysis. Tip. A 1-Mode Matrix analysis must be conducted first.
- 3 Display the analysis results.

The result of Centrality Analysis.

- <40> -



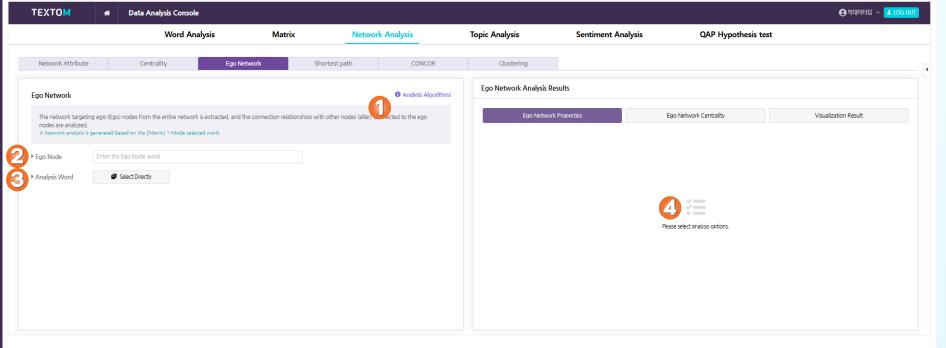
- Reselect Words
 Click [Reselect] to navigate to the
 1-Mode Matrix word selection page and reselect words for analysis.
- Download Analysis Words Download the selected words as an Excel (.xlsx) file.
- ③ Centrality Analysis Result Displays five types of centrality metrics and clustering coefficients. The centrality metrics are as follows.

Degree Centrality	
Closeness Centrality	
Betweenness Centrality	
Eigenvector Centrality	
PageRank	

Download Analysis Result Download the analysis result as an Excel (xlsx) file.

Perform Ego Network Analysis.

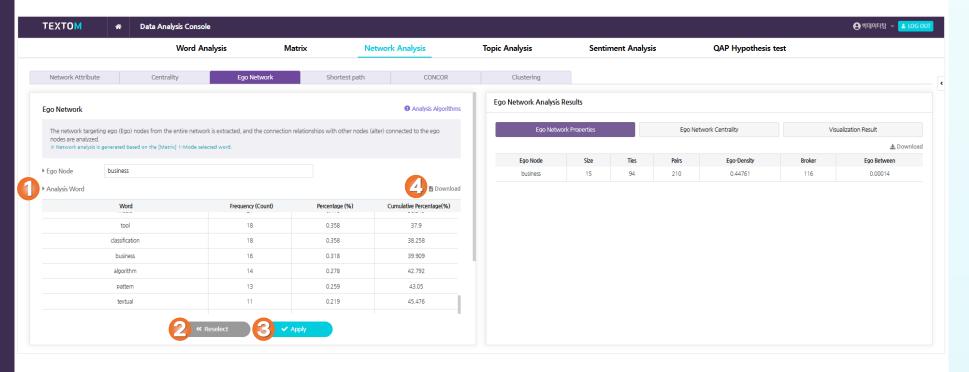
- <41> -



- Selected Algorithm Description Click the button to view the description of the algorithm.
- Enter Ego Node Word
 Input the word that will be the focus
 of the analysis. The network will be
 extracted based on this central word.
- Select word Select the word to analyze in relation to the ego node (word).
 Tip. A 1 Mode Matrix analysis must be
 - Tip. A 1-Mode Matrix analysis must be conducted first.
- Display the analysis results.

The results of Ego Network Analysis.

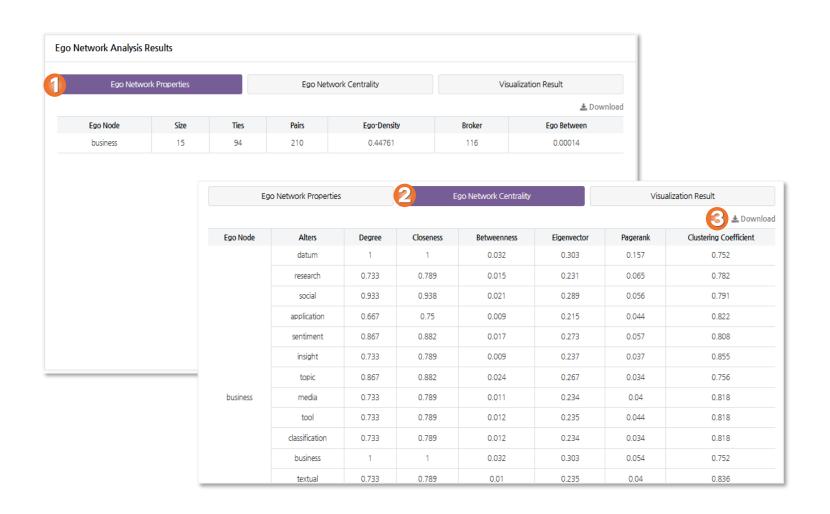
- <42> -



- (1) Review analysis word list.
- Reselect Words
 Click [Reselect] to navigate to the
 1-Mode Matrix word selection
 page and reselect
 Tip. A 1-Mode Matrix analysis must
 be conducted first.
- Apply the words to be analyzed alongside the ego node to the analysis.
- Download Analysis Words Download the selected words as an Excel (.xlsx) file.

The results of Ego Network Analysis.





Provides six types of ego network metrics as analysis results.

Size	
Ties	
Pairs	
Ego-Density	
Broker	
Ego Betweenness	

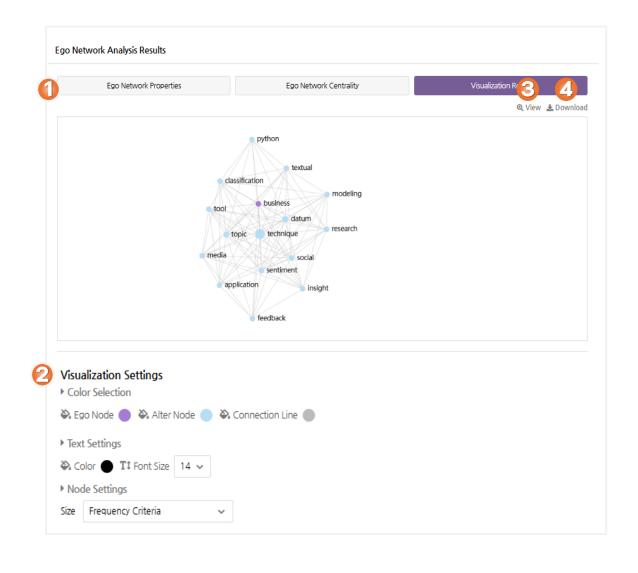
② Ego Network Centrality Displays five types of centrality metrics and the clustering coefficient as analysis results. The centrality metrics are as follows.

Degree Centrality	
Closeness Centrality	
Betweenness Centrality	
Eigenvector Centrality	
PageRank	

③ Download Analysis Result Download the analysis results as an Excel (.xlsx) file.

Displays the visualization results of Ego Network.

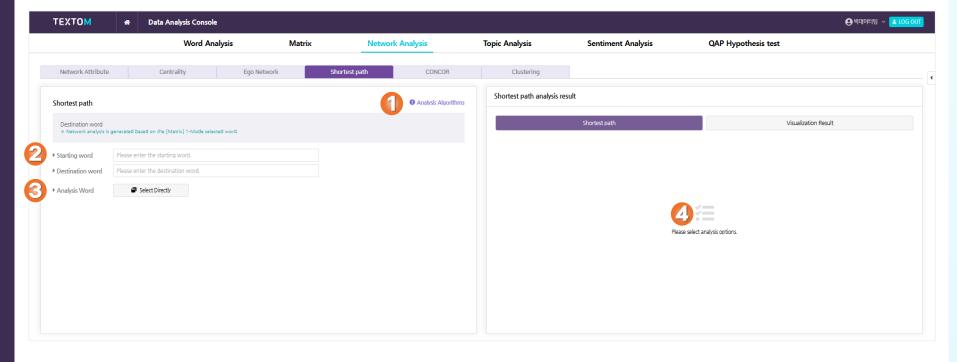




- Visualization Result
 The visualization result of ego network is provided as an undirected network graph.
 - Tip. You can zoom in and out of the visualization by scrolling the mouse wheel up and down.
- Visualization Setting Users can modify the attributes of the visualization results as desired.
 - Tip. When set based on word frequency, frequently occurring words are displayed as larger nodes. When set based on betweenness centrality, words that play a more important role in the network are displayed as larger nodes.
- 3 Zoom In Click [View] to display an enlarged version of the selected visualization in a pop-up window.
 - Tip. You can zoom in and out of the visualization by scrolling the mouse wheel up and down.
- 4 Download Visualization Download the visualization result as a PNG file.

Perform Shortest Path Analysis.

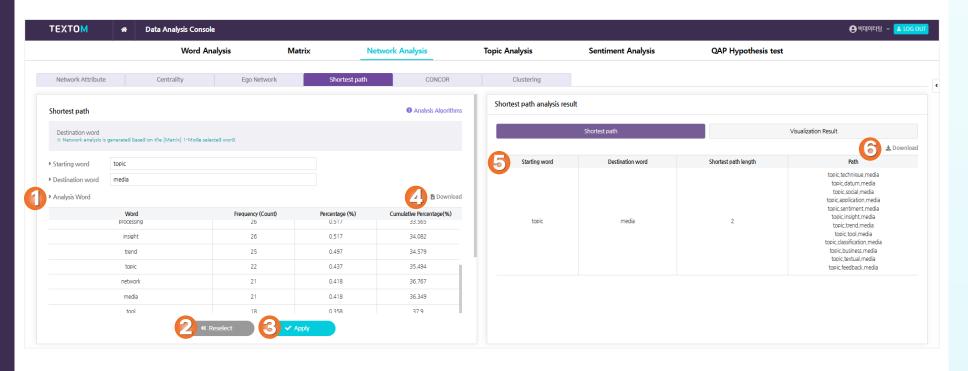




- Selected Algorithm Description Click the button to view the description of the algorithm.
- Enter the initial start(source) word and the destination word to check the path within the network. Tip. Be sure to enter words that exist
 - Tip. Be sure to enter words that exist within the network.
- ③ Select word Click [Select Directly] to navigate to the 1-Mode Matrix word selection page and select words for analysis. Tip. A 1-Mode Matrix analysis must be conducted first.
- 4 Display the analysis results.

The results of Shortest Path Analysis.

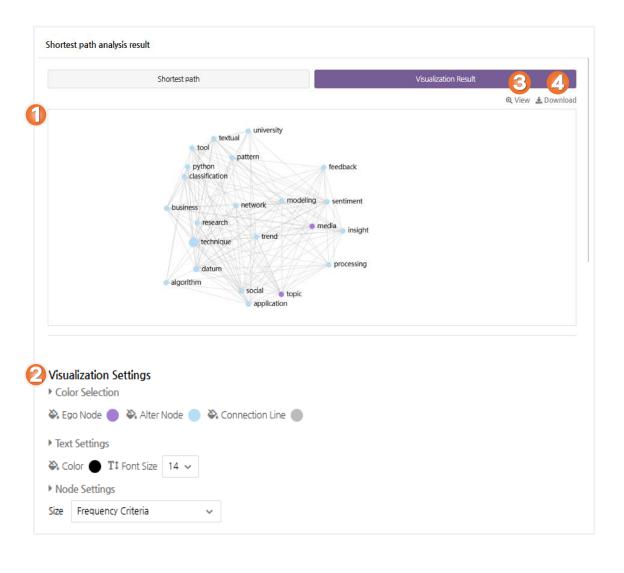
- <46> -



- Review analysis word list.
- Reselect Words Click [Reselect] to navigate to the 1-Mode Matrix word selection page and reselect. Tip. A 1-Mode Matrix analysis must be conducted first.
- 3 Apply the selected words to the analysis.
- Download Analysis Words Download the selected words as an Excel (.xlsx) file.
- Shortest Path Analysis Results The result display the shortest path length and detailed paths.
- 6 Download Analysis Result Download the analysis result as an Excel (.xlsx) file.

Displays the visualization results of Shortest Path Analysis.

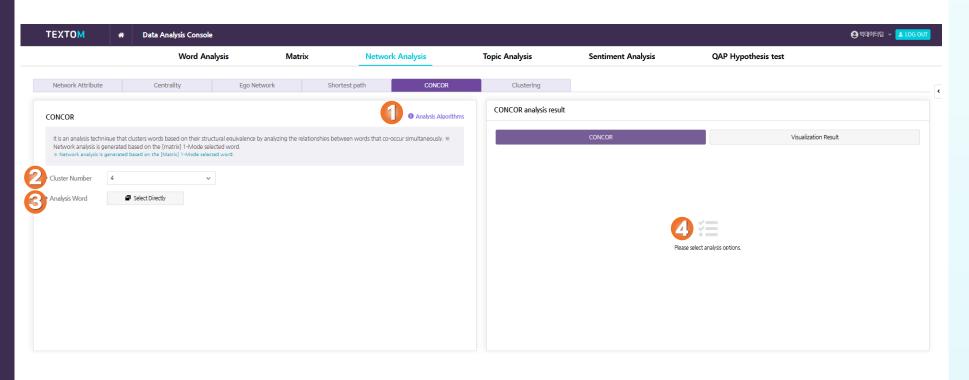
- <47> -



- Visualization Result
 The results of analysis are presented in a network chart.
 - Tip. You can zoom in and out of the visualization by scrolling the mouse wheel up and down.
- Visualization Setting Users can modify the attributes of the visualization results as desired.
 - Tip. When set based on word frequency, frequently occurring words are displayed as larger nodes. When set based on betweenness centrality, words that play a more important role in the network are displayed as larger nodes.
- 3 Zoom In Click [View] to display an enlarged version of the selected visualization in a pop-up window.
 - Tip. You can zoom in and out of the visualization by scrolling the mouse wheel up and down.
- Download Visualization Download the visualization result as a PNG file.

Perform CONCOR Analysis.

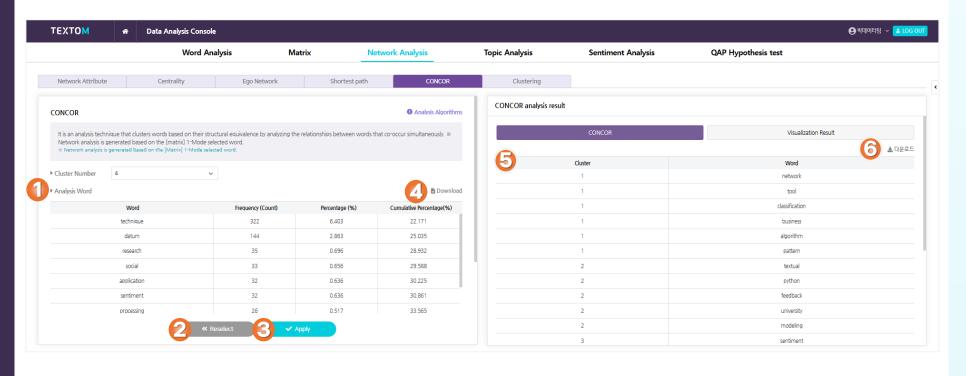




- Selected Algorithm Description Click the button to view the description of the algorithm.
- Select Number Of Cluster.
- ③ Select word Click [Select Directly] to navigate to the 1-Mode Matrix word selection page and select words for analysis. Tip. A 1-Mode Matrix analysis must be conducted first.
- (4) Display the analysis results.

The results of CONCOR Analysis.

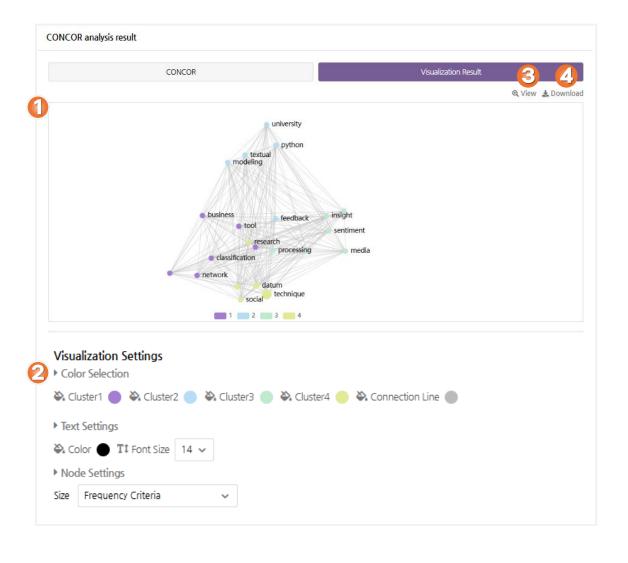
- <49> -



- Review analysis word list.
- Reselect Words
 Click [Reselect] to navigate to the
 1-Mode Matrix word selection
 page and reselect.
 Tip. A 1-Mode Matrix analysis must
 be conducted first
- 3 Apply the selected words to the analysis.
- Download Analysis Words Download the selected words as an Excel (.xlsx) file.
- (5) Shortest Path Analysis Results The results display the words and the groups to which they belong.
- 6 Download Analysis Result Download the analysis result as an Excel (xlsx) file.

Displays the visualization results of CONCOR Analysis.

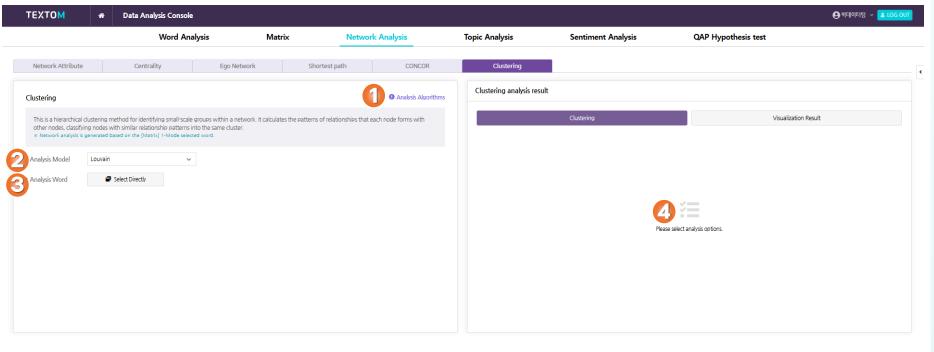
- <50> -



- Visualization Result
 The results of analysis are presented in a network chart.
 - Tip. You can zoom in and out of the visualization by scrolling the mouse wheel up and down.
- Visualization Setting Users can modify the attributes of the visualization results as desired.
 - Tip. When set based on word frequency, frequently occurring words are displayed as larger nodes. When set based on betweenness centrality, words that play a more important role in the network are displayed as larger nodes.
- 3 Zoom In Click [View] to display an enlarged version of the selected visualization in a pop-up window.
 - Tip. You can zoom in and out of the visualization by scrolling the mouse wheel up and down.
- Download Visualization Download the visualization result as a PNG file.

Perform Clustering Analysis.

- <51> -



- Selected Algorithm Description Click the button to view the description of the algorithm.
 - Select Analysis Model Clustering analysis offers the following four algorithms:
 - Louvain
 - Leiden
 - Girvan Newman (GN)
 - Clauset-Newman-Moore

Tip. For quick analysis: Louvain For high accuracy: Leiden For simple network structures: GN For hierarchical structures: Clauset-Newman-Moore

Select wordClick [Select Directly] to navigate to the1-Mode Matrix word selection pageand select words for analysis.

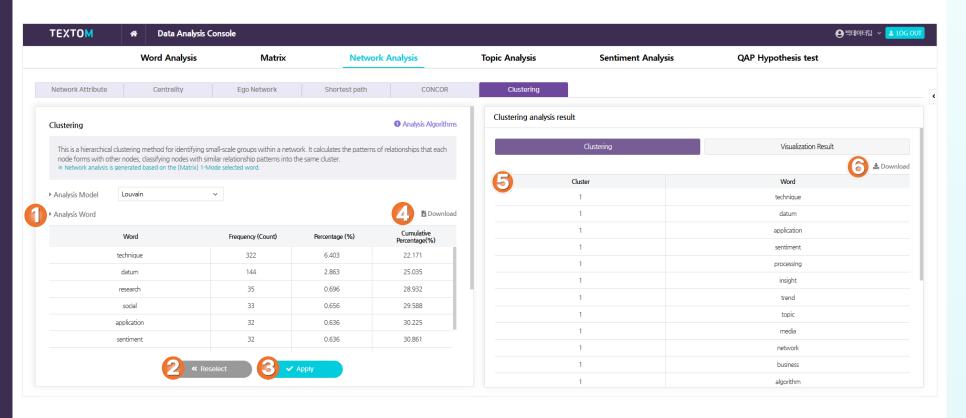
Tip. A 1-Mode Matrix analysis must be conducted first.

(4) Display the analysis results.

The results of Clustering Analysis.

Collection

- <52> -

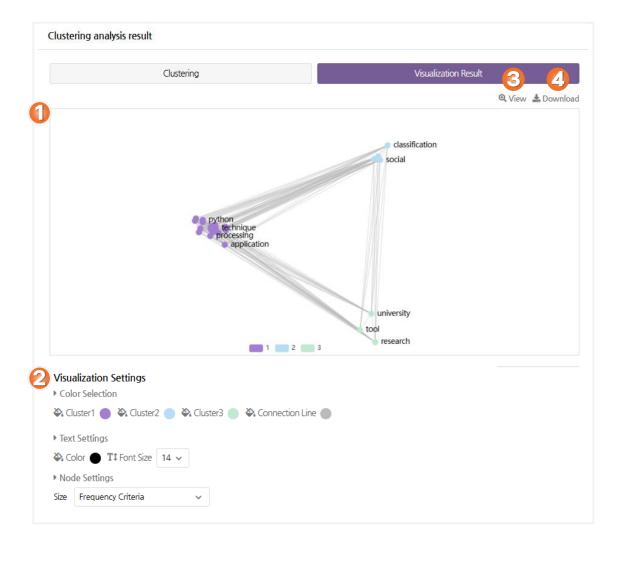


- Review analysis word list.
- Reselect Words
 Click [Reselect] to navigate to the
 1-Mode Matrix word selection
 page and reselect.
 Tip. A 1-Mode Matrix analysis must
 be conducted first.
- 3 Apply the selected words to the analysis.
- 4 Download Analysis Words Download the selected words as an Excel (.xlsx) file.
- Clustering Analysis Results The results display the words and the clusters to which they belong.
- 6 Download Analysis Result Download the analysis result as an Excel (.xlsx) file.

Displays the visualization results of Clustering Analysis.

Collection



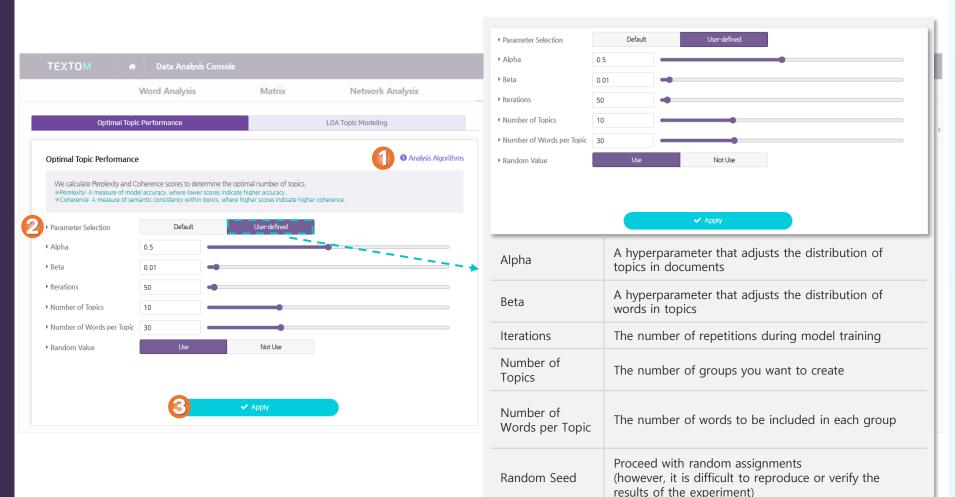


- Visualization Result
 The results of analysis are presented in a network chart.
 - Tip. You can zoom in and out of the visualization by scrolling the mouse wheel up and down.
- Visualization Setting
 Users can modify the attributes of the
 visualization results as desired.
 - Tip. When set based on word frequency, frequently occurring words are displayed as larger nodes. When set based on betweenness centrality, words that play a more important role in the network are displayed as larger nodes.
- 3 Zoom In Click [View] to display an enlarged version of the selected visualization in a pop-up window.
 - Tip. You can zoom in and out of the visualization by scrolling the mouse wheel up and down.
- 4 Download Visualization Download the visualization result as a PNG file.

Topic Analysis

Check Optimal Topic Performance before Conducting LDA Analysis.

- <54> -



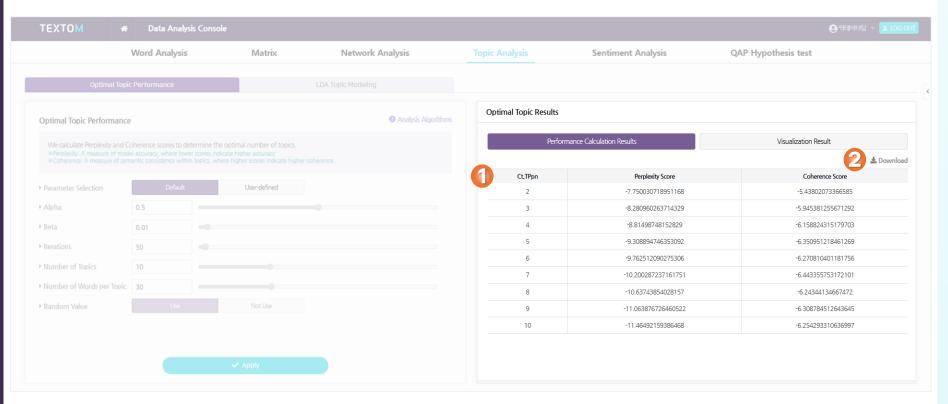
Selected Algorithm Description Click the button to view the description of the algorithm.

- 2) LDA Analysis Parameters
 Before performing LDA analysis, you
 can set the parameters to their default
 values or choose custom settings to
 achieve optimal topic performance.
 - Tip. It is recommended to use the default values. After reviewing the topic analysis results, adjust the parameters through custom settings if necessary.
- 3 Apply the selected options to proceed with the analysis.

Topic Analysis

Display the Optimal Topic Results.

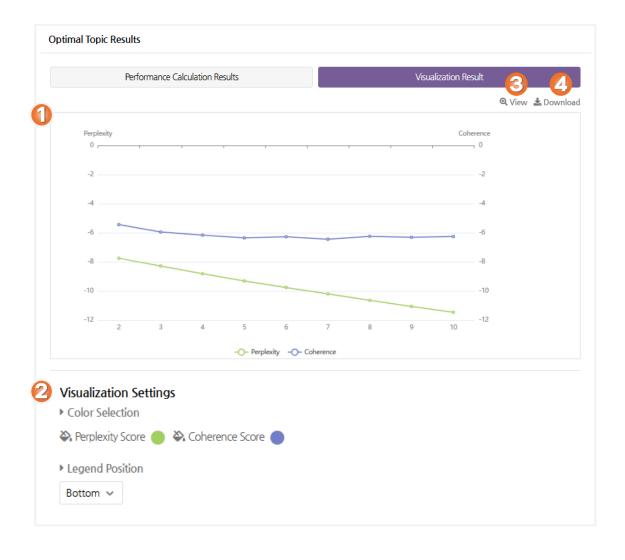




- Topic Performance Analysis Results
 The following metrics are calculated as topic performance results.
 Generally, a lower Perplexity value and a higher Coherence value indicate the optimal number of topics.
 - Perplexity Score
 A metric for the predictive performance of the topic model; lower values indicate higher predictive accuracy.
 - Coherence Score
 A metric for evaluating the semantic consistency of words within a topic; higher values indicate more coherent topics.
 - Tip. After determining the optimal number of topics based on the topic performance analysis results, reset the LDA parameters to this number of topics and proceed with the analysis.
- ② Download Analysis Result Download the analysis result as an Excel (.xlsx) file.

Displays the visualization results of Clustering Analysis.

- <56> -

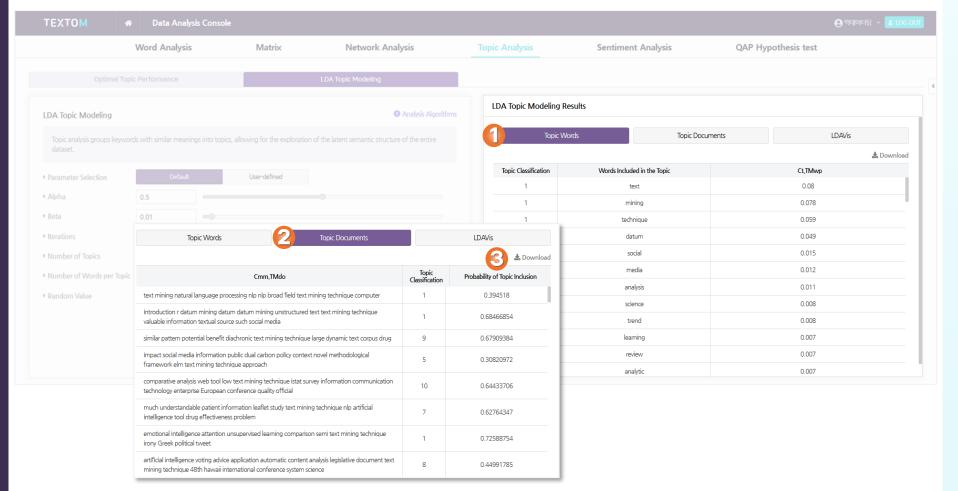


- Visualization Result
 The results of analysis are presented in a line chart.
- Visualization Setting Users can modify the attributes of the visualization results as desired.
- 3 Zoom In Click [View] to display an enlarged version of the selected visualization in a pop-up window.
- 4 Download Visualization Download the visualization result as a PNG file.

Topic Analysis

The results of LDA Topic Modeling.

- <57> -

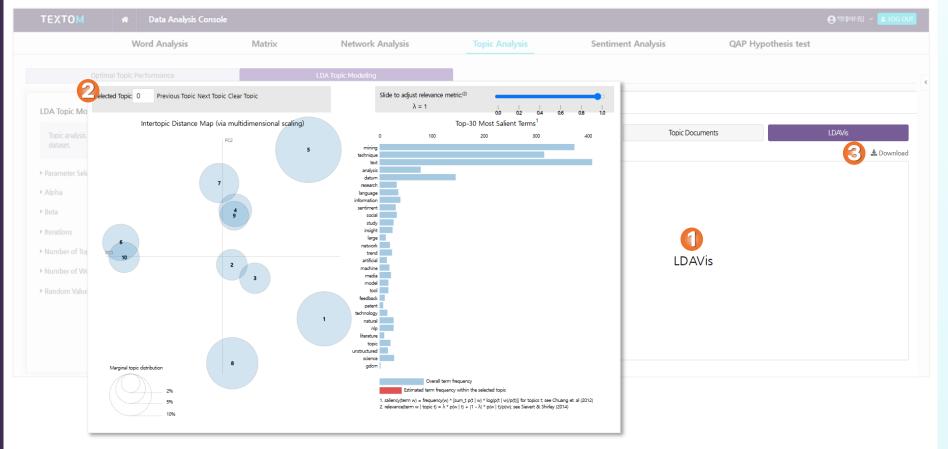


- Topic Word Analysis Results
 Calculate the extracted topics and the topic probability(%) of words from the topic word analysis.
 - Tip. Word topic probability indicates the likelihood of a word being assigned to a topic.
- ② Topic Document Analysis Results Calculate the original texts assigned to the extracted topics and their topic probability(%) from the topic document analysis.
- ③ Download Analysis Result Download the analysis result as an Excel (.xlsx) file.

Topic Analysis

The visualization results of LDA Topic Modeling.



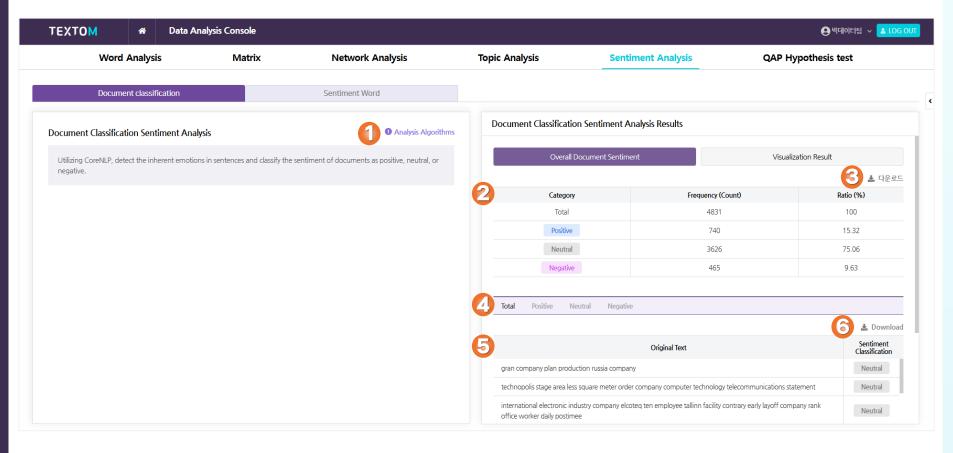


- Click this text to open the visualization in a pop-up.
- Visualization Results
 Use clicks and cursor movement to view the word distribution for each topic and the similarities between topics.
 - **Circle Size**: Represents the word distribution of the topic.
 - **Circle Distance**: Indicates the similarity between topics.
 - λ : Adjusts the distinctiveness between topics. Closer to 1 shows words that frequently appear in one topic, while closer to 0 shows words that do not frequently appear in other topics.
 - Tip. The visualization shows the top 30 keywords for each topic, so it is recommended to carefully refine words (e.g., single characters, numbers, etc.).
- 2 Download Analysis Result Download the analysis result as an HTML file.

Sentiment Analysis

Perform Document Classification Sentiment Analysis.

- <59> -

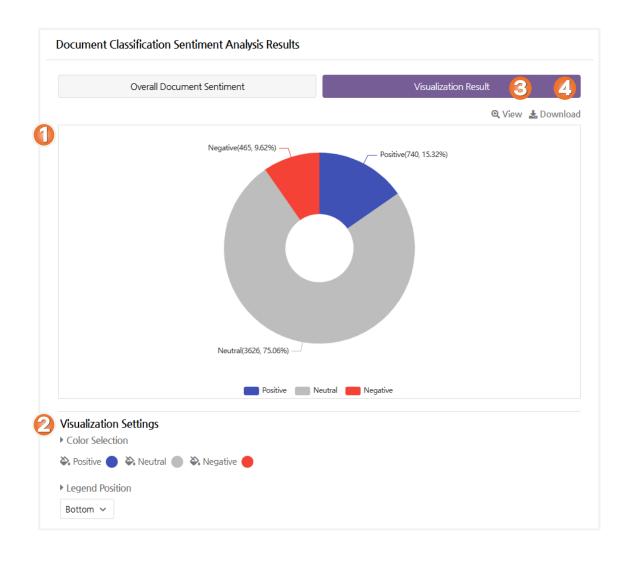


- Selected Algorithm Description Click the button to view the description of the algorithm.
- ② Summary of Overall Classification Result Generate a summary of the frequency and percentage(%) of total/positive/neutral/negative documents from the comprehensive sentiment analysis results.
- Download the comprehensive sentiment analysis results as an Excel (.xlsx) file.
- Sentiment Classification Tab Click the Sentiment tab to view the classification results of original texts by sentiment.
- (5) View Sentiment Classification Results Check the classification results of original texts by sentiment.
- 6 Download the Sentiment Classification result as an Excel (.xlsx) file.

Sentiment Analysis

Displays the visualization results of Document Classification Sentiment Analysis.

- <60> -



- Visualization Result
 The results of analysis are presented in a pie chart.
- Visualization Setting Users can modify the attributes of the visualization results as desired.
- 3 Zoom In Click [View] to display an enlarged version of the selected visualization in a pop-up window.
- Download Visualization Download the visualization result as a PNG file.

Data Analysis Console

Matrix

results.

- <61> -

Sentiment Analysis

Word Analysis

Document classification

TEXTOM

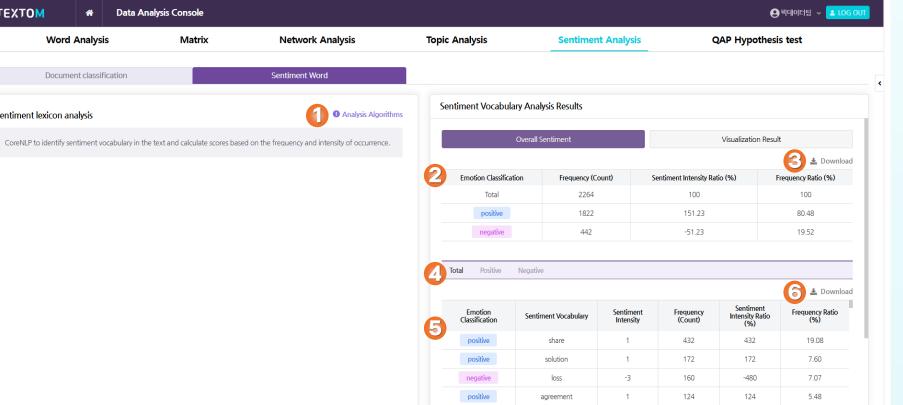
Sentiment lexicon analysis

Perform Sentiment Analysis.

Network Analysis

Sentiment Word

Selected Algorithm Description Click the button to view the



Summary of **Overall Sentiment Results** View the frequency and percentage

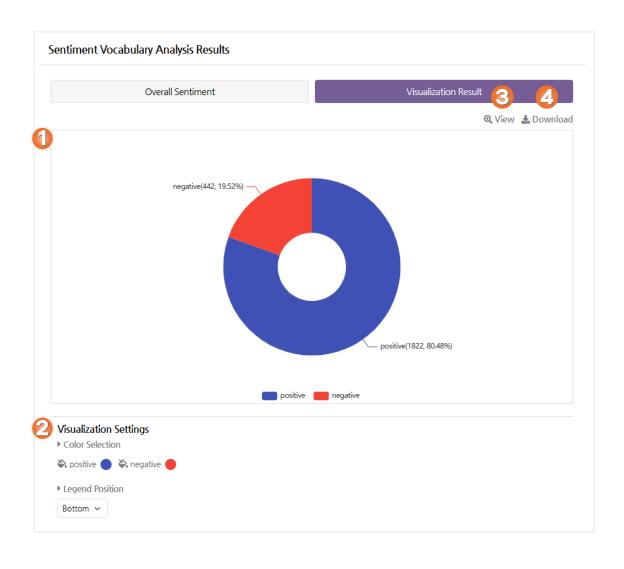
description of the algorithm.

- Download the comprehensive sentiment analysis results as an Excel (.xlsx) file.
- **Detailed Sentiment Tab** Click the tab for each detailed sentiment to view the sentiment vocabulary.
- View Sentiment Classification Results View the vocabulary, sentiment intensity, frequency, and percentage for each detailed sentiment.
- Download the detailed sentiment vocabulary analysis result as an Excel (.xlsx) file.

Sentiment Analysis

Displays the visualization results of Sentiment Analysis.



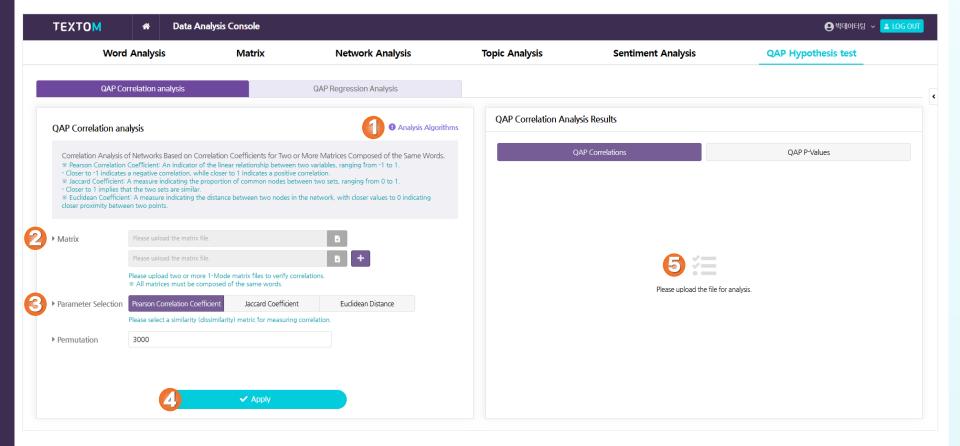


- Visualization Result
 The results of analysis are presented in a pie chart.
- Visualization Setting Users can modify the attributes of the visualization results as desired.
- 3 Zoom In Click [View] to display an enlarged version of the selected visualization in a pop-up window.
- Download Visualization Download the visualization result as a PNG file.

QAP

Perform QAP Correlation Analysis.



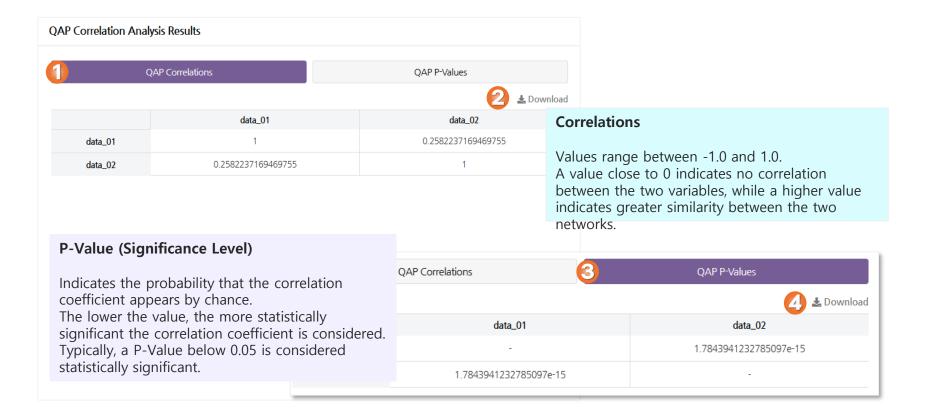


- Selected Algorithm Description Click the button to view the description of the algorithm.
- Upload the Matrix File Upload the matrix for QAP analysis. To check correlations, please upload at least two matrices.
- 3 Select Parameters Choose [Parameter Selection] and [Permutation] from the parameters.
 - Tip. Permutation involves randomly rearranging the nodes of the matrix and repeating this process multiple times. It is recommended to perform this at least 1,000 times to evaluate statistical significance.
- Proceed with the analysis using the uploaded files and selected conditions.
- (5) Display the analysis results.

QAP

The results of QAP Correlation Analysis Results.



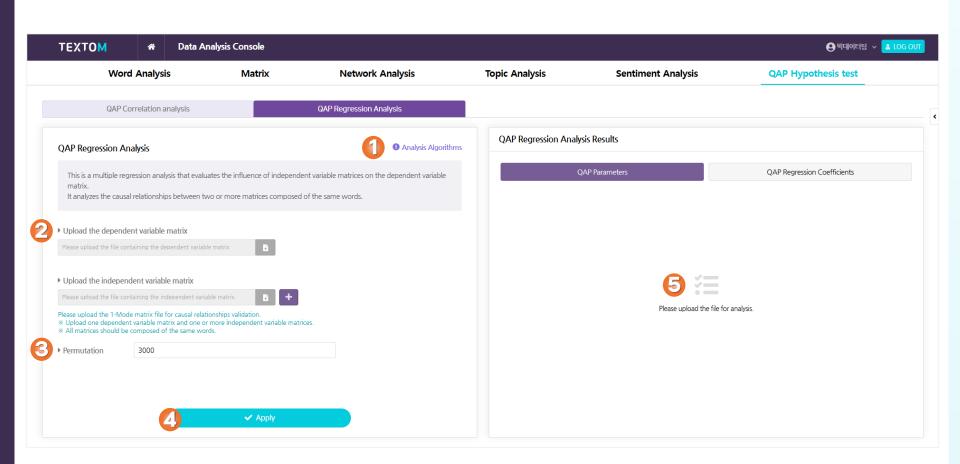


To understand the similarities and differences between the Korean and overseas markets' preferences for Korean dramas, we conducted a QAP correlation analysis.

With a correlation coefficient of 0.2582, there is a weak positive correlation between the two networks. The extremely small P-Value of 2.927564572264821e-17 indicates that the likelihood of this correlation occurring by chance is nearly zero.

- 1) QAP Correlation Analysis Results Check the QAP correlation analysis results.
 - Tip. Correlation coefficients only indicate linear relationships. If the relationship between two variables is non-linear, the correlation coefficient may appear low.
- ② Download Correlation Analysis Results Download the analysis results as an Excel (.xlsx) file.
- ③ QAP P-Value Analysis Results Choose [Parameter Selection] and [Permutation] from the parameters. Tip. A high correlation coefficient and a low P-Value indicate a strong and statistically significant relationship between the two networks.
- Download P-Value Analysis Results Download the analysis results as an Excel (.xlsx) file.

- <65> -



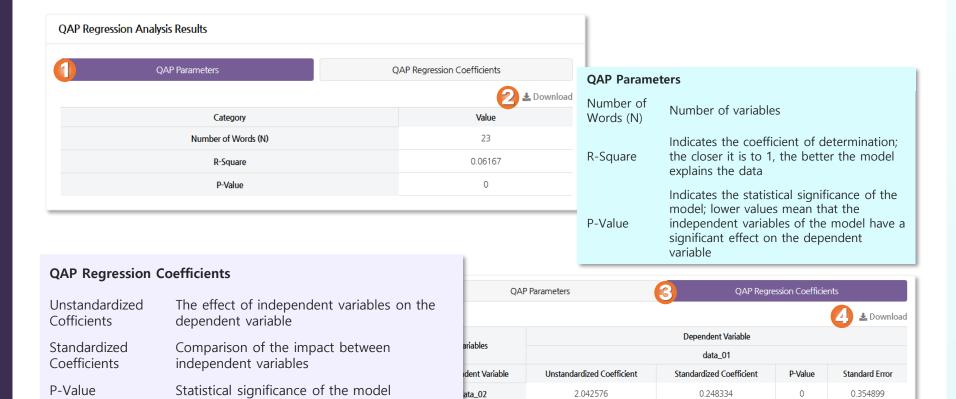
- Selected Algorithm Description Click the button to view the description of the algorithm.
- Upload the Matrix File
 Upload the matrices for QAP analysis.
 Please upload one dependent variable
 matrix and one or more independent
 variable matrices to check causal
 relationships.
 - Tip: The matrices must be 1-Mode matrices, and all matrices should be composed of the same words.
- ③ Select Parameters Choose [Parameter Selection] and [Permutation] from the parameters.
 - Tip. Permutation involves randomly rearranging the nodes of the matrix and repeating this process multiple times. It is recommended to perform this at least 1,000 times to evaluate statistical significance.
- Proceed with the analysis using the uploaded files and selected conditions.
- 5 Display the analysis results.

QAP

Standard Error

The results of QAP Regression Analysis.





Variability and reliability of the regression

coefficients

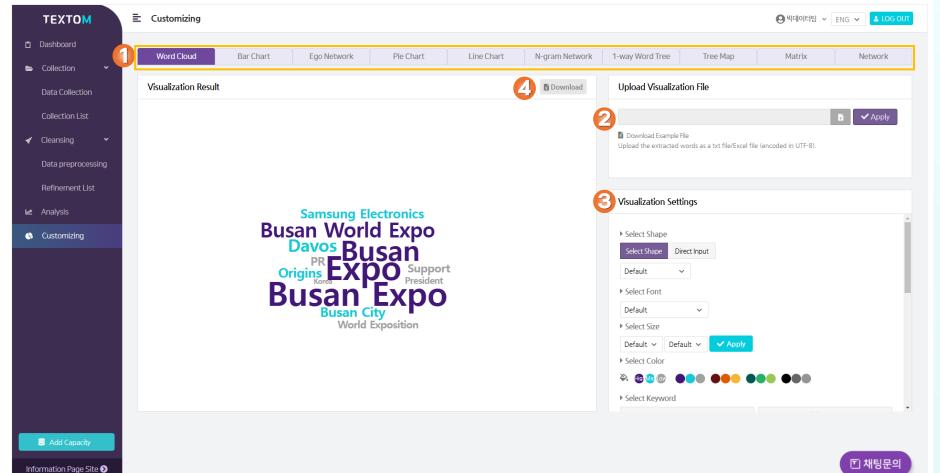
- QAP Parameters Analysis Results Check the results of the input values analyzed by QAP regression analysis.
- ② Download QAP Parameters Analysis Results Download the analysis results as an Excel (.xlsx) file.
- ③ QAP Regression Coefficients Results Check the results of the QAP regression coefficients analysis.
- 4 Download QAP Regression Coefficients Analysis Results Download the analysis results as an Excel (.xlsx) file.

Customizing

Generate Visualization.

Collection





Customizing Type
 Select the type of visualization the user wants to customize.

Word Cloud	N-gram Network
Bar Chart	1-way Word Tree
Ego Network	Tree Map
Pie Chart	Matrix
Line Chart	Network

Upload Visualization File Upload the data file suitable for the chosen type and click the [Apply] button.

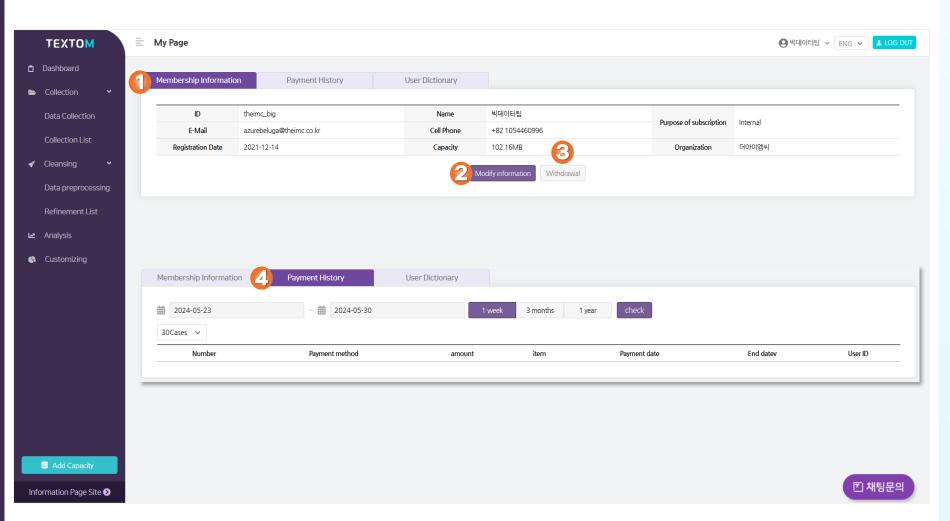
Tip. Use [Download Example File] to check the data formatting method.

- 3 Visualization Setting Users can modify the attributes of the visualization results as desired.
- Download Visualization Download the visualization result as a PNG file.

My Page

Check your membership information and payment history.





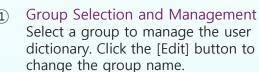
- View Member Information.
- Edit Information Edit your member information after entering your password.
- Membership Cancellation Cancel your membership by entering your ID and password.
- Payment History Set a period to view your payment history and related information.

Cleansing

- <69> -

My Page

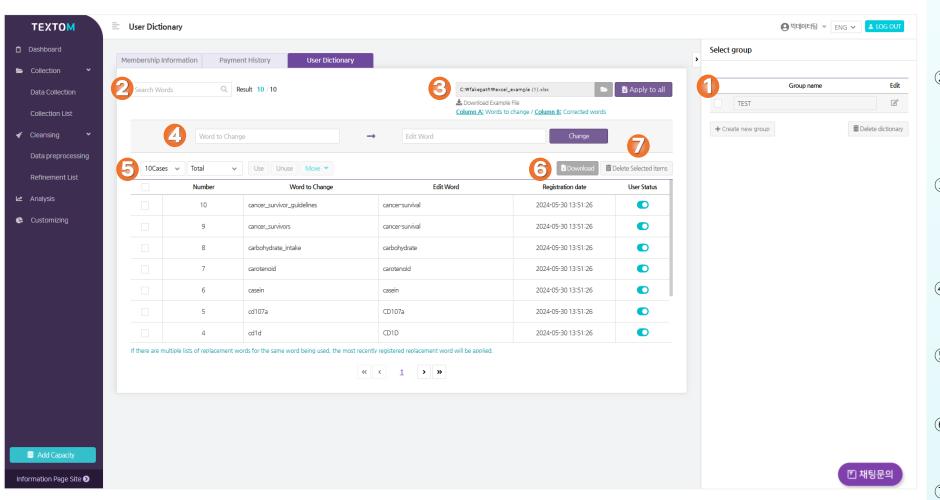
Manage the User Dictionary.



Search Words Search for words to view the list of modified words that include the searched word.

Tip: Use this to check for duplicate words.

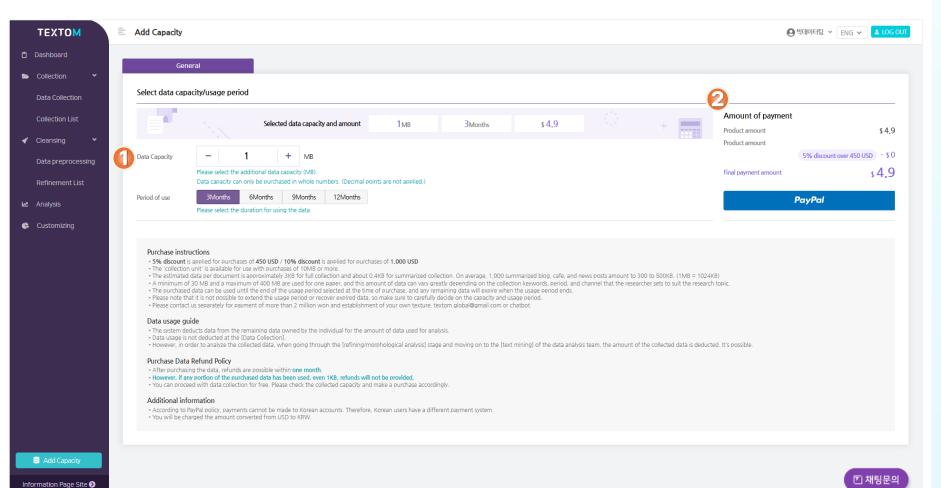
- File Upload
 Upload a user dictionary file that you have created and click the [Apply All] button. Use the [Download Sample File] to check the formatting method.
- Enter Words Input the words to be changed and the modified words.
- Select List View and Usage Options Choose the method for viewing the word list and whether to use the words.
- 6 Download User Dictionary Download the user dictionary as an Excel (.xlsx) file.
- Delete Modified Words Select the checkboxes to delete modified words.



Add Capacity

Add the data capacity needed for analysis.

- <70> -



- Select Data Capacity And Usage Period Choose the additional data capacity and usage period.
 - TIP. Capacity can be purchased in 1MB increments, and the usage period can be selected in 3-month, 6-month, 9-month, or 12-month intervals.
- **Estimated Payment Amount** The estimated payment amount for the selected purchase options is calculated.
 - TIP. For payments over 1,500 USD and setting up your own TEXTOM, please contact us.