

Open Source Research Software Programs

Methodology	Name of the Research Software Program	Link to the Research Software Program	Description of the Research Software Program
Qualitative	QDA Miner Lite	https://provalisresearch.com/products/qualitative-data-analysis-software/freeware/	<p>QDA Miner Lite is a free and easy-to-use version of our popular computer-assisted qualitative analysis software. It can be used for the analysis of textual data such as interview and news transcripts, open-ended responses, etc. as well as for the analysis of still images. It offers basic CAQDAS features such as:</p> <ul style="list-style-type: none">• Importation of documents from plain text, RTF, HTML, PDF as well as data stored in Excel, MS Access, CSV, tab-delimited text files• Importation from other qualitative coding software such as Atlas.ti, HyperResearch, Ethnograph, from transcription tools like Transana and Transcriber as well as from Reference Information System (.RIS) files.• Intuitive coding using codes organized in a tree structure.• Ability to add comments (or memos) to coded segments, cases, or the whole project.• Fast Boolean text search tool for retrieving and coding text segments.• Code frequency analysis with bar chart, pie chart, and tag clouds.

			<ul style="list-style-type: none"> • Coding retrieval with Boolean (and, or, not) and proximity operators (includes, enclosed, near, before, after). • Export tables to XLS, Tab Delimited, CSV formats, and Word format • Export graphs to BMP, PNG, JPEG, WMF formats. • Single-file (*.qdp) project format. • Interface and help file in English, French, and Spanish.
Qualitative	QDA Miner	https://provalisresearch.com/products/qualitative-data-analysis-software/freeware/compare-versions/	<p>QDA Miner is an easy-to-use qualitative data analysis software for organizing, coding, annotating, retrieving, and analyzing collections of documents and images. QDA Miner qualitative data analysis tool may be used to analyze interview or focus group transcripts, legal documents, journal articles, speeches, even entire books, as well as drawings, photographs, paintings, and other types of visual documents. QDA Miner offers more computer assistance for coding than any other qualitative research software on the market, allowing you to code and analyze documents more quickly but also more reliably. QDA Miner's seamless integration with WordStat, a content analysis and text mining software and SimStat, a statistical analysis tool, gives you unprecedented flexibility to analyze text and relate its content to structured information, including numerical and categorical data.</p>

Qualitative	Taguette	https://www.taguette.org/	<p>A spin on the phrase "tag it!", Taguette is a free and open-source qualitative research tool (which works on all operating systems!) that allows users to:</p> <ul style="list-style-type: none"> • Import PDFs, Word Docs (.docx), Text files (.txt), HTML, EPUB, MOBI, Open Documents (.odt), and Rich Text Files (.rtf). • Highlight words, sentences, or paragraphs and tag them with the codes you create. • Work collaboratively with other users (if self-hosting or using app.taguette.org). • Your data stays your own; export everything including your project, highlights, documents, and codes.
Qualitative	GATE	https://gate.ac.uk/	<p>GATE is over 15 years old and is in active use for all types of computational task involving human language. GATE excels at text analysis of all shapes and sizes. From large corporations to small startups, from €multi-million research consortia to undergraduate projects, our user community is the largest and most diverse of any system of this type, and is spread across all but one of the continents¹. GATE is open source free software; users can obtain free support from the user and developer community via GATE.ac.uk or on a commercial basis from our industrial partners. We are the biggest open source language processing project with a development team more than double</p>

			<p>the size of the largest comparable projects (many of which are integrated with GATE²). More than €5 million has been invested in GATE development³; our objective is to make sure that this continues to be money well spent for all GATE's users.</p> <p>This note summarises the GATE software and process and gives examples of some of their uses. We believe that GATE is the leading system of its type, but as scientists we have to advise you not to take our word for it; that's why we've measured our software in many of the competitive evaluations over the last decade-and-a-half (MUC, TREC, ACE, DUC, ...). We invite you to give it a try, to get involved with the GATE community, and to contribute to human language science, engineering and development.</p>
Qualitative	Weft QDA	http://www.pressure.to/qda/	<p>The software isn't being maintained or updated, but the most recent version is available for interest. This version includes some standard CAQDAS features: (Follow the links to see screenshots)</p> <ul style="list-style-type: none"> • Import plain-text documents from text files or PDF • Character-level coding using categories organised in a tree structure • Retrieval of coded text and 'coding-on' • Simple coding statistics • Fast free-text search

			<ul style="list-style-type: none"> • Combine coding and searches using boolean queries AND, OR, AND NOT • ‘Code Review’ to evaluate coding patterns across multiple documents • Export to HTML and CSV formats
Qualitative	RDQA	http://rqda.r-forge.r-project.org/	<p>RDQA is a R package for Qualitative Data Analysis, a free (free as freedom) qualitative analysis software application (BSD license). It works on Windows, Linux/FreeBSD and Mac OSX platforms. RQDA is an easy to use tool to assist in the analysis of textual data. At the moment it only supports plain text formatted data. All the information is stored in a SQLite database via the R package of RSQLite. The GUI is based on RGtk2, via the aid of gWidgetsRGtk2. It includes a number of standard Computer-Aided Qualitative Data Analysis features. In addition it seamlessly integrates with R, which means that a) statistical analysis on the coding is possible, and b) functions for data manipulation and analysis can be easily extended by writing R functions. To some extent, RQDA and R make an integrated platform for both quantitative and qualitative data analysis.</p>
Qualitative	QDA	https://qualcoder.wordpress.com/	<p>Qualitative Data Analysis software can save time and support all stages of your research, from collecting, organizing, and processing qualitative data, to coding, annotating, querying, and visualizing</p>

			<p>your analyses. QDA platforms can also enhance teamwork, mixed methods analysis with quantitative data, writing, and reporting. This workshop introduces and compares Atlas.ti, NVivo, Dedoose, Taguette, and QualCoder.</p>
Statistics	Jamovi	https://www.jamovi.org/	<p>The jamovi project was founded to develop a free and open statistical platform which is intuitive to use, and can provide the latest developments in statistical methodology. At the core of the jamovi philosophy, is that scientific software should be “community driven”, where anyone can develop and publish analyses, and make them available to a wide audience.</p> <p>jamovi aims to be a neutral platform, and takes no position with respect to competing statistical philosophies. The project was not founded to promote a particular statistical ideology, instead wanting to serve as a safe space where different statistical approaches might be published side-by-side, and consider themselves first-rate members of the jamovi community.</p>
Qualitative	QCoder	https://github.com/ropenscilabs/qcoder#using-qcoder	<p>With particular strengths for mixed and multi-method qualitative research in R, q coder is an excellent choice for researchers looking for a light-weight qualitative package for text analysis. By clicking on the logo to the left, you will be able to access instructions on how to install and use this package.</p>

Audio	BORIS	http://www.boris.unito.it/pages/download.html	BORIS is a free and open source software for coding audio visual source material. Developed by a group of collaborators at the University of Torino in order to code video materials for behavioral analysis. Below are two video tutorials that will help you get started with using BORIS. To access the BORIS homepage please click on the logo to the left.
Behavioral	Behatrix	http://www.boris.unito.it/pages/behatrix	Researchers who observe and study behavior often collect data in the form of sequences of behavioral displays that they need to analyze and visualize to test hypotheses. Behatrix is free and open-source software available for GNU/Linux, Windows and Mac OS X.
Graphic	DORIS	http://www.boris.unito.it/pages/doris.html	DORIS is an easy-to-use interactive object detection and tracking software with a graphical user interface. DORIS is a free and open-source software available for GNU/Linux, Windows and Mac OS.
Mapping	Fusion	https://support.google.com/fusiontables/answer/9551050?visit_id=638318900149516592-1491272636&rd=1	Google Fusion Tables and the Fusion Tables API have been discontinued. We want to thank all our users these past nine years. We understand you may not agree with this decision, but we hope you'll find alternatives that are just as useful, including BigQuery , Cloud SQL , Maps Platform , and Data Studio .

Quantitative	Gephi	https://gephi.org/	Gephi is the leading visualization and exploration software for all kinds of graphs and networks. Gephi is open-source and free. Runs on Windows, Mac OS X and Linux.
Quantitative	Julia	https://julialang.org/downloads/	<p>Julia makes it possible to build complete applications. Write web UIs with Dash.jl and Genie.jl or native UIs with GTK.jl. Pull data from a variety of databases. Build shared libraries and executables with PackageCompiler. Deploy on a webserver with HTTP.jl or embedded devices. Powerful shell integration make it easy to managing other processes.</p> <p>Julia has foreign function interfaces for C, Fortran, C++, Python, R, Java, Mathematica, Matlab, and many other languages. Julia can also be embedded in other programs through its embedding API. Julia's PackageCompiler makes it possible to build binaries from Julia programs that can be integrated into larger projects. Python programs can call Julia using PyJulia. R programs can do the same with R's JuliaCall, which is demonstrated by calling MixedModels.jl from R. Mathematica supports calling Julia through its External Evaluation System.</p>
Statistics	R	https://www.r-project.org/about.html	R is a free software environment for statistical computing and graphics. It compiles and runs on a wide variety of UNIX platforms, Windows and MacOS. To download R , please choose your preferred CRAN mirror .

			If you have questions about R like how to download and install the software, or what the license terms are, please read our answers to frequently asked questions before you send an email.
Data	Open Refine	https://openrefine.org/	OpenRefine is a powerful free, open source tool for working with messy data: cleaning it; transforming it from one format into another; and extending it with web services and external data.
Quantitative	Tableau	https://public.tableau.com/app/discover	Tableau Public is a free platform to explore, create, and publicly share data visualizations (or vizzes, as we affectionately call them) online. Anyone can create vizzes using our in-platform web authoring or Tableau Desktop Public Edition for free. Those with Tableau Desktop Professional Edition can also publish to Tableau Public for free. With millions of inspiring data visualizations to discover and learn from, Tableau Public makes it easy to develop your own data skills and create an online portfolio of work. Join the Tableau Public community where you can grow and learn from each other while making data a part of your everyday life.
Quantitative	Weka	https://www.cs.waikato.ac.nz/ml/weka/	Weka is a collection of machine learning algorithms for data mining tasks. It contains tools for data preparation, classification, regression, clustering, association rules mining, and visualization.

			<p>Found only on the islands of New Zealand, the Weka is a flightless bird with an inquisitive nature. The name is pronounced like this, and the bird sounds like this.</p> <p>Weka is open source software issued under the GNU General Public License.</p> <p>We have put together several free online courses that teach machine learning and data mining using Weka. The videos for the courses are available on Youtube.</p>
Qualitative	QCA	https://sites.socsci.uci.edu/~cragin/fsQCA/index.shtml	<p>Qualitative Comparative Analysis (QCA) is a new analytic technique that uses Boolean algebra to implement principles of comparison used by scholars engaged in the qualitative study of macro social phenomena. Typically, qualitatively oriented scholars examine only a few cases at a time, but their analyses are both intensive -- addressing many aspects of cases -- and integrative -- examining how the different parts of a case fit together, both contextually and historically. By formalizing the logic of qualitative analysis, QCA makes it possible to bring the logic and empirical intensity of qualitative approaches to studies that embrace more than a handful of cases -- research situations that normally call for the use of variable-oriented, quantitative methods. Boolean methods of logical comparison represent each case as a combination of causal and outcome conditions. These combinations can be compared with each other and then logically</p>

			<p>simplified through a bottom-up process of paired comparison. Computer algorithms developed by electrical engineers in the 1950s provide techniques for simplifying this type of data. The data matrix is reformulated as a "truth table" and reduced in a way that parallels the minimization of switching circuits (see Charles Ragin, The Comparative Method: Moving Beyond Qualitative and Quantitative Strategies). These minimization procedures mimic case-oriented comparative methods but accomplish the most cognitively demanding task -- making multiple comparisons of configurations -- through computer algorithms. The goal of the logical minimization is to represent -- in a shorthand manner - the information in the truth table regarding the different combinations of conditions that produce a specific outcome.</p>
Qualitative	Tosmana	https://www.tosmana.net/	<p>Tosmana is a tool for Qualitative Comparative Analysis (QCA).</p> <p>The software can be used for csQCA (Crisp-Set Qualitative Comparative Analysis) and mvQCA (Multi-Value QCA) calculations. More information about QCA can be found on the website of Charles Ragin and the COMPASSS Research Group.</p>

Annotation	ELAN	https://archive.mpi.nl/tla/elan	<p>With ELAN a user can add an unlimited number of textual annotations to audio and/or video recordings. An annotation can be a sentence, word or gloss, a comment, translation or a description of any feature observed in the media. Annotations can be created on multiple layers, called <i>tiers</i>. Tiers can be hierarchically interconnected. An annotation can either be time-aligned to the media or it can refer to other existing annotations. The content of annotations consists of Unicode text and annotation documents are stored in an XML format (EAF).</p>
Mapping	Compendium	https://www.cognexus.org/download_compendium.htm	<p>Compendium is the powerful, open source (and free) software that CogNexus recommends for Issue Based Information Systems (IBIS) based work, from problem solving and critical thinking through Dialogue Mapping™. Using Compendium makes IBIS structures easier to read and easier to change than working with indented text IBIS (itIBIS) or creating a hand-written IBIS structure on a white board or paper. Compendium supports the development and maintenance of large-scale IBIS structures (maps), over long periods of time, better than any other available software. Learning Compendium is a bit of an investment, but we believe it is the best software available today to do this kind of work.</p>

Mixed-Methods	CATMA	https://catma.de/	In CATMA you can work the way, which best fits your research question: qualitative or quantitative, bottom-up and exploratory, or descriptive and taxonomy-guided, individually or in a team—you choose.
Qualitative	Cassandre	https://www.cassandre.uliege.be/	Cassandre is a free collaborative text analysis platform based on semi-automatic labeling, concordance visualization and registry creation.
Statistics	Visão	http://www.visao.cz/	Visão is a powerful desktop software that allows to process and analyze large text data. With regard to your aims and plans, this application makes possible to design fully-customizable flows to manipulate and transform your data into a desired shape or to perform a statistical analysis.
Qualitative	libreQDA	https://github.com/tryolabs/libreQDA	LibreQDA is what is commonly known in the psychology area as Computer Assisted Qualitative Data Analysis Software (CAQDAS).
Discourse	TAMS	https://tamsys.sourceforge.io/	TAMS stands for Text Analysis Markup System. It is a convention for identifying themes in texts (web pages, interviews, field notes). It was designed for use in ethnographic and discourse research.

Math	GeoGebra	https://www.geogebra.org/about	GeoGebra is a dynamic mathematics software for all levels of education that brings together geometry, algebra, spreadsheets, graphing, statistics and calculus in one engine. In addition, GeoGebra offers an online platform with over 1 million free classroom resources created by our multilingual community. These resources can be easily shared through our collaboration platform GeoGebra Classroom where student progress can be monitored in real time.
Quantitative	PSPP	https://www.gnu.org/software/pspp/	GNU PSPP is a program for statistical analysis of sampled data. It is a free as in freedom replacement for the proprietary program SPSS, and appears very similar to it with a few exceptions. The most important of these exceptions are, that there are no “time bombs”; your copy of PSPP will not “expire” or deliberately stop working in the future. Neither are there any artificial limits on the number of cases or variables which you can use. There are no additional packages to purchase in order to get “advanced” functions; all functionality that PSPP currently supports is in the core package. PSPP is a stable and reliable application. It can perform descriptive statistics, T-tests, anova, linear and logistic regression, measures of association, cluster analysis, reliability and factor analysis, non-parametric tests and more. Its backend is designed to

			perform its analyses as fast as possible, regardless of the size of the input data. You can use PSPP with its graphical interface or the more traditional syntax commands.
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