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Credamo PRESS

Leveraging Credamo for Efficient Data Collection: Functional Introductions and Cross-Field Applications in Academic and Commercial Settings

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Abstract

In recent years, research utilizing online platforms for surveys and experiments has been significantly popularized. As an emerging online platform for surveys and experiments, Credamo (credamo.com) has attracted growing attention in academic and commercial fields owing to its robust and integrated functionality. However, there is currently a lack of systematic introduction to its functions and applications. This article provides a comprehensive introduction to the Credamo platform and its applications in academic and commercial settings, focusing on its support for single integrated workflow of questionnaires and experimental design, sample services, and data analysis. It aims to offer clear guidance for researchers in various fields to use Credamo effectively.

Keywords: Credamo; Questionnaires and experimental design; Subject pool; Online research

1. Introduction

In recent years, advances in digital technology, together with the growing limitations of traditional research methods in sample acquisition, cost, and efficiency, have led an increasing number of scholars to adopt online surveys and experiments (Van Quaquebeke et al., 2022). Traditional offline research approaches are constrained by geographical, temporal, and financial factors, making it difficult to rapidly recruit diverse participant samples covering different age groups, occupations, and cultural backgrounds (Denissen et al., 2010). Additionally, traditional methods usually require hiring staff and printing materials (Christensen et al., 2017), often involving high costs. Online survey and experimental methods can mitigate these shortcomings. By using these methods, researchers can quickly recruit a broad and diverse group of participants, overcoming geographical limitations (Buhrmester et al., 2016) and making large-sample and cross-cultural studies feasible (McDuff et al., 2017). They can also design and distribute questionnaires and experiments remotely (Van Quaquebeke et al., 2022), which effectively reduces costs in terms of venues, labor, and materials while improving research efficiency. Given these advantages, online research has become an established approach across scientific and commercial domains. To support this methodology, a plethora of dedicated online tools

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has emerged; however, the number of such tools is substantial, and there are certain differences in terms of functions, operations, and other aspects. Thus, when faced with large and diverse such online tools, researchers need to consider how to select the most appropriate tool for their specific research needs.

Similar to traditional methods, conducting a complete online survey or experiment requires researchers to first design the questionnaire or experimental task. Tools such as Qualtrics (qualtrics.com) and SurveyMonkey (surveymonkey.com) are commonly used for questionnaire design. Meanwhile, tools like E-Prime (pstnet.com/products/e-prime), Inquisit (millisecond.com), PsychoPy (psychopy.org), jsPsych (jspsych.org/latest), Testable (testable.org), and Gorilla (gorilla.sc) are essential for researchers to design experiments. After designing the questionnaire or experiment, researchers need to recruit participants to complete the survey or experiment. Platforms such as Amazon Mechanical Turk (MTurk) (mturk.com) and Prolific (prolific.com) are frequently used for this purpose. Once data collection is complete, researchers typically export the data to statistical software such as SPSS (ibm.com/products/spss-statistics), Stata (stata.com), R (r-project.org), or MATLAB (www.mathworks.cn/products/matlab.html) for analysis. These tools provide researchers with convenient and efficient means to conduct research, and have supported research and publications in multiple fields. With the deepening of research across various fields, an increasing number of scholars aim to collect participants' physiological data to meet the requirements for the depth and comprehensiveness of research (Tröndle et al., 2014). Furthermore, researchers as users not only expect online platforms to offer diverse functionalities that accommodate complex survey or experimental designs, but also expect to avoid switching between various tools when carrying them out, hoping to complete the entire process using a single tool.

The emerging online survey and experimental platform Credamo not only features native collection capabilities for physiological data (e.g., eye-tracking and EEG) alongside a suite of advanced functions, including HTML/JS/AI Agent Embedding, HBO, PsychoPy/jsPsych Experiment Embedding, SurveyGPT, Multi-period Survey, Pair and Group Survey, AI Intelligent Interpretation, and ReportGPT, but also integrates the functions of questionnaire and experimental design, participant sampling services, and data analysis, enabling researchers to complete the entire research workflow within a single platform. Based on these capabilities, this paper aims to systematically introduce Credamo and its applications in academic and business settings from the perspective of single integrated workflow of questionnaire and experimental design, sample services, and data analysis, so as to provide a reference for scholars to make full use of the platform and promote relevant research.

2. Research Tools for Social Science

2.1 Overview of Questionnaire Design Tools

Tools such as Qualtrics (qualtrics.com) and SurveyMonkey (surveymonkey.com) are among the tools commonly employed by researchers for questionnaire design. Qualtrics is a professional experience management platform primarily targeting enterprise users. Its functionalities encompass questionnaire design, real-time data analysis, and the creation of personalized surveys. It also supports multi-channel distribution and dynamic report generation, enabling enterprises to quickly respond to market changes, gain customer insights, and optimize operational processes. SurveyMonkey provides users with functions including questionnaire design, question setting, response collection, and data analysis. It enables users to create surveys, collect and analyze data, and is widely applicable in contexts including market research, customer satisfaction surveys, employee feedback collection, and

academic studies.

2.2 Overview of Behavioral Experimental Design Tools

Researchers commonly utilize platforms such as E-Prime (pstnet.com/products/e-prime), Inquisit (millisecond.com), PsychoPy (psychopy.org), jsPsych (jspsych.org/latest), Testable (testable.org), and Gorilla (gorilla.sc) for designing behavioral experiments. E-Prime is a suite for designing, running, and analyzing behavioral experiments, offering millisecond-precision timing for stimulus presentation and data collection. It supports multimodal stimuli and demonstrates high compatibility with specialized hardware, including electroencephalography (EEG) systems and eye-trackers. Inquisit serves as both a psychological experiment system and a psychological statistics software. It has functions including creating surveys and scales, implementing implicit attitude tests, and running experiments. It can also collect experimental data via the internet, encrypt the data, and support web-based experiments. PsychoPy is a free, open source psychological experiment software developed based on Python, with cross-platform compatibility (Windows, macOS, Linux). PsychoPy enables users to design and conduct various types of psychological experiments, such as visual search tasks, short-term memory tests, and reaction time tasks. It also allows users to generate experimental reports for easier data analysis and result interpretation. Meanwhile, PsychoPy has two main views: the Builder view and the Coder view. jsPsych is a JavaScript framework for creating behavioral experiments that run in web browsers. jsPsych enables users to create tasks such as visual presentation tasks and reaction time tasks, instruction pages and questionnaires, and even online eye-tracking via compatibility with tools like WebGazer. Testable streamlines the creation of experiments and surveys through template-based tools or natural language input. The platform provides a vetted participant pool, advanced authentication, and tools for targeting specific populations. Researchers can collect data online, access results in CSV file format, and integrate them with analysis tools. Gorilla provides users with an easy-to-use graphical interface to build experiments without requiring coding. It supports functions such as collecting cognitive and behavioral data with validated reaction times, recruiting participants, and collecting data. Designed specifically for academic research and teaching, the platform also incorporates features such as version control, and collaboration tools.

2.3 Overview of Sample Service Tools

Platforms such as Amazon Mechanical Turk (MTurk) (mturk.com) and Prolific (prolific.com) are applied in a range of contexts for participant recruitment. Both MTurk and Prolific are platforms that connect requesters with a global pool of participants (Palan & Schitter, 2018; Buhrmester et al., 2016). On MTurk, researchers post Human Intelligence Tasks (HITs)—tasks that are challenging to automate, such as image annotation, data categorization, and survey completion, which workers select and complete to earn remuneration. Prolific's participants are selected through a verification process. It features function designs tailored to diverse research needs (e.g., individual experiments, interactive tasks, and longitudinal studies) and has been applied in multidisciplinary research such as economics and psychology (Palan & Schitter, 2018).

2.4 Overview of Data Analysis Tools

Software packages such as SPSS (ibm.com/products/spss-statistics), Stata (stata.com), R (r-project.org), and MATLAB (ww2.mathworks.cn/products/matlab.html) are applied in a range of contexts for data analysis and modeling across numerous research fields. Among them, SPSS is

statistical software with a graphical menu-driven interface, offering user-friendly statistical analysis tools for non-professional statisticians. Its core functionalities encompass data management, a range of statistical tests, graphical output generation, and report management. Stata is a statistical software for data science. Its statistical analysis functions—including linear regression, logistic regression, time series analysis, panel data analysis, and survival models—enable researchers to test hypotheses and address complex research questions. Users can use it to fit models, test hypotheses, make inferences, and interpret analytical results. Users can also use Stata to create charts, whose layout, labels, and colors all support custom settings, and the charts can be seamlessly exported to multiple formats, facilitating the integration of visual content into publications and presentations. Stata's tools can also handle large datasets, missing values, and data merging, among other tasks, helping users with data preparation before analysis. In addition, Stata supports seamless export of reports to multiple formats, enabling automated report generation. R is a language and environment for statistical computing and graphics, providing a wide variety of statistical (e.g., linear and nonlinear modeling, classical statistical tests, time-series analysis, classification, and clustering) and graphical techniques, and is highly extensible. MATLAB is a high-level programming language and interactive environment primarily used for numerical computation with functions including data analysis, programming, App building, and parallel computing, applicable to control systems, machine learning, signal processing, deep learning, and predictive maintenance. It also provides a data acquisition toolbox and is applied in many fields such as scientific research, engineering technology, financial analysis, image processing, and signal processing.

With the continuous advancement of online survey and experimental methods and related tools, researchers' demand for conducting research more efficiently and conveniently has become increasingly prominent. Consequently, the ability to conduct an entire study—from design through data collection to analysis—within a unified platform has emerged as a key industry trend. This approach mitigates common pitfalls associated with using multiple disparate tools, such as compatibility issues, increased costs, higher error rates, and significant time overhead. Credamo addresses this need by integrating three core research components—questionnaire and experimental design, sample services, and data analysis—into a single platform, offering a streamlined, one-stop solution for researchers.

3. Credamo Platform Framework

Credamo integrates three core components of the research workflow — questionnaire and experimental design, sample services, and data analysis—into a single platform, thereby enabling researchers to complete the entire research process in a one-stop manner (Figure 1). Meanwhile, adhering to the concept of "More, Faster, Better, Smarter" for regular research, Credamo has carefully created a service model combining free and paid options; it not only provides users with free one-stop services but also offers paid services to meet their more diverse needs.

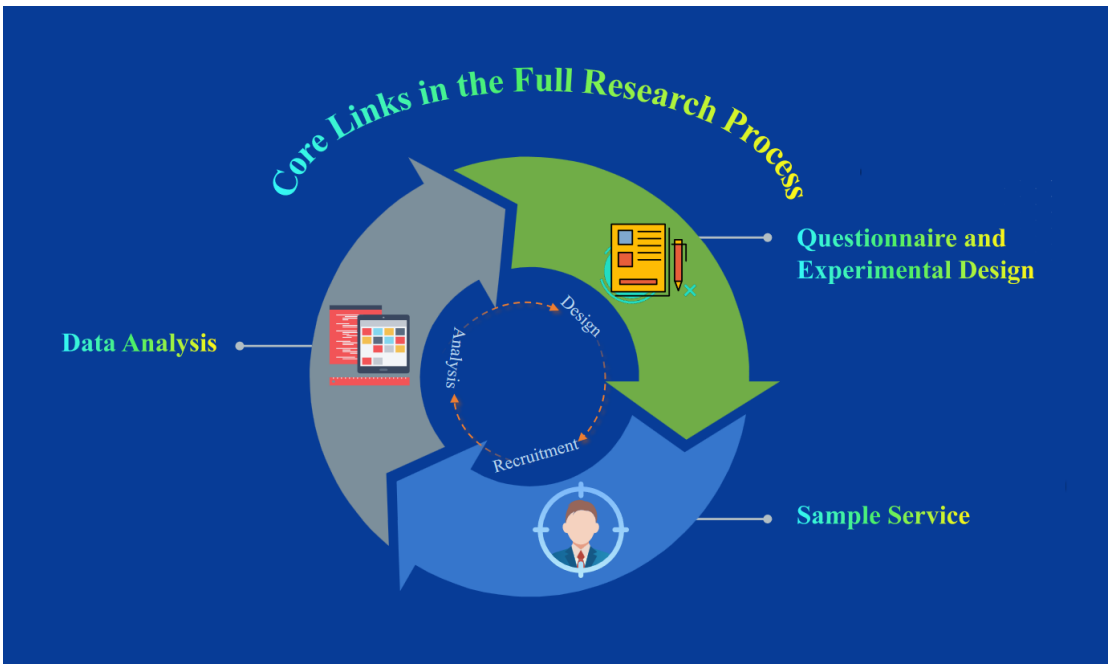

Figure 1. One-stop Core Function Framework Diagram

3.1 Questionnaire and Experimental Design Module

For online questionnaires design, Credamo offers a comprehensive suite of tools tailored to diverse research requirements. First, the platform supports questionnaire design across multiple fields and offers a diverse range of question types—beyond basic types (e.g., multiple choice, fill-in-the-blank, matrix, and scale questions), it also supports slider rating, file upload, reverse-scored item, MaxDiff, NPS (Net Promoter Score), random numbers, HTML questions, and more. Second, the platform allows users to customize the appearance of questionnaires by allowing them to modify the response background, footer, font, and watermark, thereby enhancing visual appeal and achieving customized brand promotion effects (available for enterprise accounts only). Third, the platform ensures questionnaire quality through multiple methods. For example, users can set screening questions to automatically reject respondents who fail verification (Jin et al., 2020); set reverse-worded items to facilitate the identification of inattentive participants (Li & Zhou, 2024); and set time on page limits to enhance participants' attention to questions (Zhang et al., 2023). Additionally, the platform provides over ten quality control methods—including participants' number of completed surveys, credit scores, and historical acceptance rates—to ensure the quality of data collected by users.

In terms of online experimental design, Credamo provides a set of core tools and supportive features. First, Credamo supports the design of behavioral experiments without requiring programming (Li et al., 2025). Users need not install any software or plugins; they can create experiments comparable to those built in E-Prime or Inquisit through a few clicks and directly distribute them to a large pool of participants. It also offers advantages, including rich stimulus materials (e.g., text, images, audio, and video), precise timing (response time accurate to milliseconds), flexible design options (experiments and questionnaires can be used in combination, and stimulus content can be displayed in groups or randomly), diverse functions, a wide range of participants, and lifetime free access for premium members. Second, Credamo supports the collection of physiological data (e.g., eye-tracking and EEG data) (Chen et al., 2024a). Beyond these core features, Credamo provides diversified functions: for instance, it has launched experimental services for software such as E-Prime and Inquisit; it has also

introduced a function to embed interactive AI agents within survey items, thereby bringing more possibilities to users' research design.

3.2 Sample Service Module

First, Credamo's sampling services combine breadth with precision. Its domestic panel comprises over three million registered participants, covering all provincial administrative regions in China, with partial overseas sampling also supported. For precision, Credamo provides targeted sampling and quota-setting tools. For instance, when distributing a survey via the platform's "Data Market" researchers can screen potential participants based on specific demographic or behavioral characteristics (Ren et al., 2023). Second, Credamo supports sample real-name authentication, requiring participants to upload identity information for real-name verification to ensure the authenticity of questionnaire responses. Credamo's backend is equipped with a credit evaluation system, which assesses participants based on their response quality and calculates a corresponding credit score (Gu, 2025), thereby further improving data quality (Wang et al., 2025a). In addition, Credamo enables rapid data collection; for example, a standard study targeting over 1,000 participants can typically be completed within approximately one hour, allowing researchers to acquire data swiftly.

3.3 Data Analysis Module

Credamo's data analysis module offers functions including data cleaning, statistical modeling, and assessment reporting. Specifically, data cleaning includes operations such as creating new variables and reverse scoring. Its statistical modeling capabilities support a range of analyzes, including descriptive statistics, multiple-choice question analysis, regression analysis, analysis of variance (ANOVA), logistic regression, factor analysis, and reliability analysis. It can also generate statistical charts to help users more intuitively understand data characteristics and patterns. Beyond basic analyzes, the platform also supports advanced modeling and analytical methods—such as conjoint analysis and structural equation modeling (SEM)—that can meet users' more complex research and analysis needs (Luan et al., 2025). Finally, the assessment reporting feature primarily serves human resource assessment and psychological assessment settings (Jiang et al., 2025).

3.4 Business Model

Credamo operates on a freemium service model, offering both free and paid tiers. Users with a Free Account can access a suite of basic research functions without any cost. During the questionnaire design and distribution phase, the platform does not charge additional fees for core activities such as creating a new questionnaire, using the question bank, and setting time limits. If users choose to distribute questionnaires independently, they can generate questionnaire links or QR codes and collect data free of charge by sharing them via WeChat, email, or other channels. In the data quality control phase, users can use free functions such as IP address restriction, device filtering, geographic targeting, and custom respondents screening (Tang et al., 2023). In the data analysis phase, Free Account users can access free features including data cleaning, AI-powered reporting (ReportGPT), data export (CSV, XLS, SAV formats), interactive dashboard, descriptive statistics, survey distribution, conjoint analysis, and market research. Moreover, advanced applications—such as survey share, MaxDiff (MaxDiff Pro), joint analysis, survey embedding, and eye-tracking—are also provided within the Free Accounts. Thus, Credamo's free functions cover all core links of the entire research process.

For users with more advanced needs, Credamo also offers paid services. First, the platform's "Data

Market" provides users with an accurate and efficient paid distribution channel. The total cost of a single distribution includes questionnaire remuneration, red envelope rewards, and service fees. The questionnaire remuneration is determined by the publisher but must not be lower than the minimum price calculated by the system, which is dependent on the number of questions, the minimum pricing coefficient, and the use of specialized measures such as EEG. Red envelope rewards are monetary incentives in addition to the remuneration paid to participants, and publishers can choose whether to set them or not. If users need precise sampling, a service fee will be charged. This fee is 1 RMB per participant for one criterion, 1.5 RMB for two criteria, and 2 RMB for three or more criteria. The basic platform service fee is 15% of the total remuneration paid to participants (i.e., the sum of questionnaire remuneration and red envelope rewards), and Enterprise Account users are eligible for a 50% discount on this fee. For quality control of responses, the fee is 0.2 RMB per sample per quality control item. Screening questions cost 0.2 RMB per sample per question (the first screening question is free). For projects involving CBC or HBO, the fee is 1 RMB per sample. Advanced functionalities—such as paired/group surveys and multi-period surveys—are subject to additional fees at the platform's discretion. Second, Credamo offers multiple paid account tiers to accommodate diverse research requirements. Users can purchase a Basic Account, a Premium Account, or an Enterprise Account based on their research needs. The Basic Account costs 198 RMB per year and meets basic research needs. The Premium Account is priced at 233 RMB per month (or 998 RMB per year for annual subscriptions); it comes with powerful functions and offers good value for individual users. The Enterprise Account costs 2798 RMB per year (Group purchase discount: 1666 RMB per person) and is the first choice for teams, companies, or academic departments purchasing in bulk.

4. Functions and Features

In terms of questionnaire and experimental design, sample services, and data analysis, Credamo not only meets users' basic needs throughout the entire research process but also provides a suite of highlighted functions to support more complex studies. This chapter outlines these advanced capabilities (Figure 2).

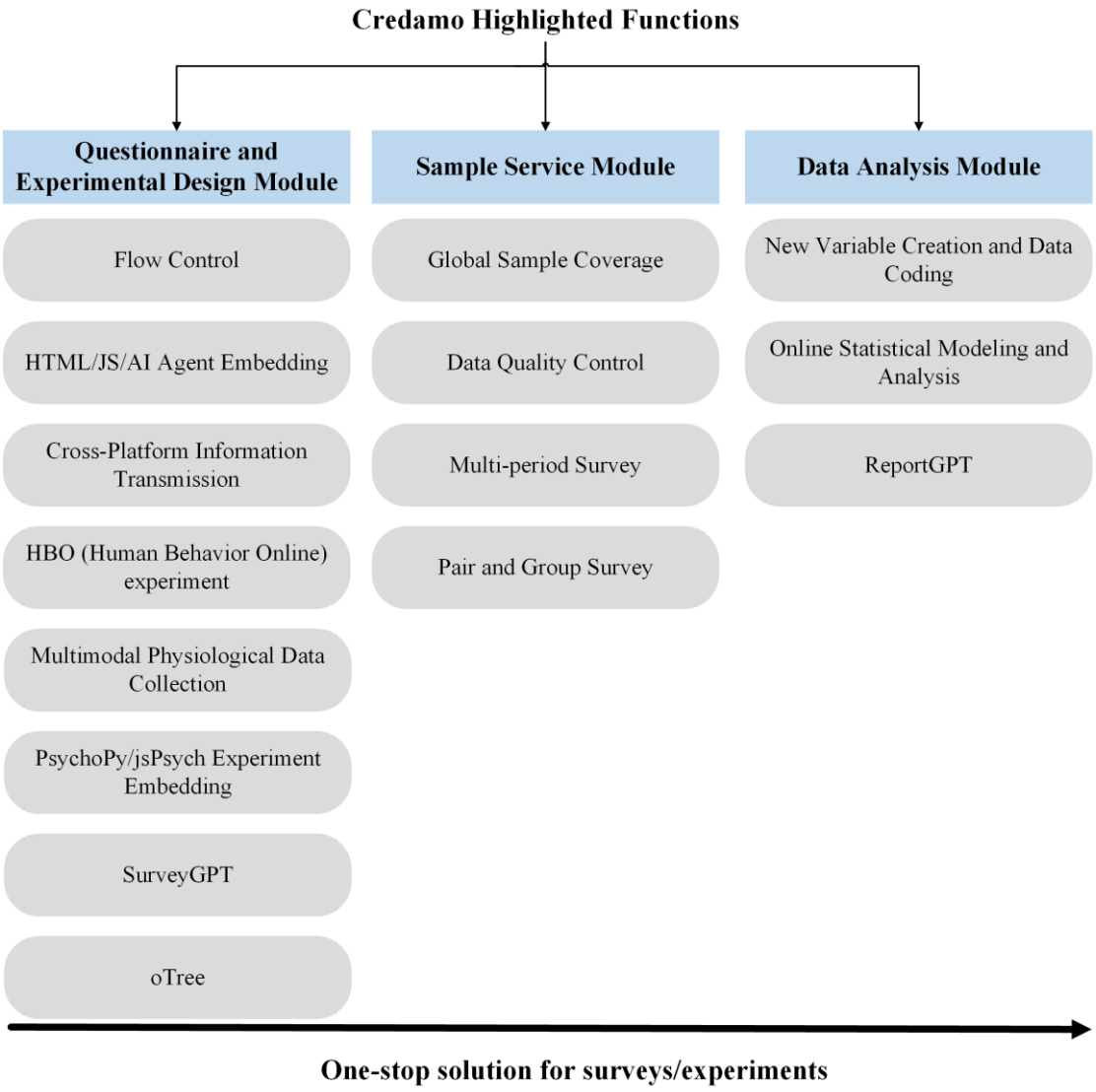

Figure 2. Highlighted Functions of Core Links

4.1 Flow Control

Researchers sometimes need to implement complex research designs. For instance, in consumer behavior research, researchers may need to randomly display different product introduction pages to participants to study the impact of different presentation methods on consumers' purchase intentions; in educational research, a study might investigate how an intervention affects learning outcomes across different age groups, which requires stratifying students by age and then randomly assigning the intervention within each stratum. Manually implementing such complex designs is highly cumbersome and likely to cause confusion. Credamo's Flow control function offers a convenient way to implement such complex designs. Specifically, if most of the questionnaires' content is the same with only minor differences, users can simply place the different content blocks into the randomiser, and participants will randomly see one of the blocks. Additionally, users can nest randomisers to achieve more complex experimental effects (Chen et al., 2024d). This functionality thereby streamlines the design of complex studies and offers a more efficient operational workflow for researchers.

4.2 HTML/JS/AI Agent Embedding

In many research contexts, standardized questionnaire question types may fail to meet researchers' needs. Credamo's HTML/JavaScript (JS)/AI agent embedding function provides an effective approach to implementing more complex research designs. Specifically, it allows the embedding of HTML and JS code into questionnaires. This capability supports researchers with programming skills in customizing presentation styles and interactive functionalities beyond the platform's standard offerings. Users can embed their own HTML code in an HTML question (embedding style, script, or link tags within HTML code is currently not supported), enabling flexible adjustments to content styling and layout structure. Furthermore, users can insert JS code into an HTML question, which will be executed when the question is presented for response. Simultaneously, an AI chatbot can be embedded to enable interactive conversations, thereby unlocking more possibilities for research design.

4.3 Cross-Platform Information Transmission

In many research settings, researchers often aim to achieve cross-platform information transmission. Traditionally, this has required methods such as manual data export followed by row-by-row matching or developing specialized interfaces to achieve this goal. However, these methods are often time-consuming, prone to error, and costly. Credamo's custom variables function helps researchers address these drawbacks. It allows researchers to create custom associated variables (e.g., unique participant IDs) (Liu, et al., 2025) and achieve seamless integration with other platforms via standardized formats. Information can be automatically transmitted across platforms via these variables without the need for manual export, effectively reducing the risk of human error. Additionally, this function enables researchers to flexibly set variable types and transmission rules, significantly reducing technical barriers and greatly enhancing research efficiency. Credamo also supports account linkage with other platforms such as WeChat, Weibo, and Alipay, providing another effective way for cross-platform information transmission.

4.4 HBO (Human Behavior Online) Experiment

Researchers sometimes need to conduct behavioral experiments. Traditionally, to conduct such experiments, researchers often relied on professional experimental software like E-Prime and Inquisit. The HBO function introduced by Credamo provides researchers with a new approach. HBO (Human Behavior Online) is Credamo's new psychological/behavioral experiment function (Wu et al., 2023). Its key feature is that it enables users to complete experimental designs similar to those in E-Prime or Inquisit without programming, and directly distribute the experiments to millions of participants. This effectively addresses the problem of difficult design and hard-to-recruit participants in experimental research.

4.5 Multimodal Physiological Data Collection

Research in multiple fields such as psychology, medicine, and education involves collecting eye tracking and EEG data. Traditionally, to obtain such data, researchers typically relied on expensive professional equipment and faced with drawbacks including restricted experimental settings (typically laboratory-based), complex operation, and difficult data processing. Credamo's support for collecting physiological data such as eye-tracking and EEG provides an effective solution to these drawbacks. For eye-tracking, Credamo only requires a computer camera to capture participants' gaze points (Zhang et al., 2023). With this function, users do not need to purchase expensive equipment—they can achieve eye tracking effects using their computer camera. For EEG data collection, Credamo's self-developed

portable EEG equipment is easy to operate, enabling quick acquisition of participants' EEG data. It also supports platform functions for EEG data visualization, helping researchers conduct their research efficiently. Collectively, these functions reduce the technical and financial barriers for researchers to collect eye-tracking and EEG data, and to a certain extent mitigate the scenario constraints of such research.

4.6 PsychoPy/jsPsych Experiment Embedding

In research fields such as psychology, cognitive neuroscience, economics, and behavioral science, researchers often need to conduct behavioral experiments. Conventionally, researchers mostly used professional software (e.g., E-Prime and PsychoPy) to run experiments in controlled laboratory environments, or used open-source libraries (e.g., jsPsych and lab.js) to write experimental programs, then rented servers, built websites, and configured databases to deploy the experiments. However, these methods typically demand a high level of technical expertise and adequate research funding, and the entire process is extremely complex, posing significant challenges for many researchers. Credamo's PsychoPy/jsPsych Embedding function addresses these challenges to a certain extent. The operation of embedding PsychoPy experiments and jsPsych experiments in Credamo is straightforward, simplifying the process of conducting behavioral experiments (Li et al., 2025). This enables researchers with limited funding or technical skills to also carry out experiments, and to a certain extent promotes the development of behavioral experiments.

4.7 SurveyGPT

To design a high-quality questionnaire, researchers often need to undertake tasks such as reviewing relevant literature, selecting appropriate scales, refining question wording, and adjusting the logical sequence of questions—all based on their research questions. Credamo's SurveyGPT, a text-generating survey tool built on a large language model, provides users with an effective approach to compiling surveys efficiently. By utilizing SurveyGPT, users can automatically generate a complete questionnaire simply by inputting the survey topic, thereby significantly improving the efficiency of questionnaire editing.

4.8 oTree

The open-source framework oTree, built on Python, is designed for behavioral research and experiments, encompassing domains such as psychological experiments, multiplayer games, strategic games, and dynamic questionnaires or surveys. In recent years, oTree has seen increasing adoption for experimental research; however, setting up an oTree server involves a certain technical threshold. To lower this barrier, Credamo has integrated an oTree module into its platform, facilitating the development and implementation of behavioral economics experiments.

4.9 Global Sample Coverage

Research in fields like sociology, economics, and marketing often demands studies with large, geographically diverse samples. Traditional offline recruitment methods for such studies can be time-consuming and are often limited in their reach. The emergence of Credamo provides an effective solution to these drawbacks (Wang et al., 2025e). Firstly, Credamo's domestic registered participant panel comprises over 3 million individuals, covering all provincial-level administrative regions in China. It supports precise targeting based on nine major demographic categories and hundreds of user

tags. Additionally, Credamo also facilitates access to international samples. Researchers can currently directly collect data via Credamo in the following countries and regions: China, the United States, India, Brazil, the United Kingdom, Mexico, Canada, Australia, Germany, South Africa, Portugal, Poland, and Italy. This functionality significantly aids researchers in conducting cross-cultural or multinational studies.

4.10 Data Quality Control

When conducting surveys, researchers universally aim to obtain high-quality and valid data. Traditionally, ensuring data quality involved manually screening each completed questionnaire post-collection to identify and remove invalid responses—such as straight-line answering or failed attention checks—a process that is both time-consuming and labor-intensive. Credamo addresses the challenges through a dual mechanism of proactive prevention and ex-post screening. Firstly, the platform provides a range of screening questions that researchers can configure as required. If a participant fails to select the specified option, their response is automatically rejected by the system at no cost (Lei, 2024). Additionally, Credamo's backend incorporates a credit assessment system that evaluates participants based on their response quality and assigns a reliability score (Gu, 2025). Secondly, Credamo includes over ten built-in quality control methods. Researchers can preset rules before launching a survey. These can include minimum reliability scores, approval rates, prevention of duplicate submissions, and IP address restrictions, thereby enhancing data quality at the sample admission stage. Thirdly, researchers can also manually reject invalid questionnaires after data collection, avoiding payment for low-quality data. These functions significantly improve research efficiency and data validity. Finally, Credamo features a geographic range selection function. Once activated, researchers can delineate specific geographical areas on a map, allowing only users within those areas to participate. This is particularly useful for location-based studies. (Note: Setting an excessively small area may result in insufficient data collection. To ensure both data quality and collection speed, it is recommended to consult platform support in advance).

4.11 Multi-period Survey

In fields such as sociology and psychology, researchers often need to explore the change trends of individuals or groups over time—for example, tracking employee adjustment following onboarding or shifts in consumer satisfaction after a purchase. Traditionally, this involved longitudinal study designs, collecting data from the same participants across multiple time points. This typically required obtaining contact details and then administering surveys through methods like phone calls or in-person visits. However, these methods usually consume significant human, material, and time costs, and face challenges such as high sample attrition rates and cumbersome data management. Credamo's Multi-period Survey function offers an effective solution to these problems. It allows researchers to recruit and retain the same cohort of participants across multiple survey waves (Wang et al., 2025f). Multi-period data collection can be set up and managed through a streamlined platform interface.

4.12 Pair and Group Survey

In research across many fields, researchers need to explore the relationships and interactive effects between connected individuals or groups. For instance, organizational behavior research may investigate leader-member dynamics, while educational research might explore how teacher-student interactions influence learning outcomes. Such research typically requires researchers to recruit paired

samples for data collection, and may even demand longitudinal tracking of these pairs at multiple time points to reveal more complex dynamic mechanisms. Traditionally, implementing such pair and group surveys was challenging. On the one hand, paired sample resources were relatively scarce, forcing researchers to invest substantial effort in identifying individuals with paired relationships. On the other hand, the data collection process was cumbersome, as it necessitated ensuring that all members of a pair or group completed their respective surveys. Credamo's Pair and Group Survey function provides strong support for researchers. It allows researchers to conduct online "1-to-1" and "1-to-many/multi-group" matching (Wang et al., 2025e), helping them find high-quality paired samples. Additionally, the platform supports longitudinal tracking of the same paired samples, improving research efficiency and data quality, and facilitating the smooth progress of scientific research.

4.13 New Variable Creation and Data Coding

In scientific research, raw data from surveys or experiments often require processing before analysis. Researchers typically need to derive new variables from the raw data—through operations like summation, averaging, or recoding—to prepare for subsequent statistical tests. Traditionally, this entails exporting raw data to external software (e.g., Excel, SPSS) for variable computation. This process can be cumbersome, time-consuming, and susceptible to human error. Credamo provides researchers with a fast and convenient solution. Specifically, Credamo's new variable creation function includes several key features, mainly enabling researchers to create new variables based on existing ones via calculation, coding, and other methods—such as summation, averaging, reverse coding, recoding, and dummy variable conversion. With this function, researchers do not need to export data to third-party tools; the entire process can be completed within the platform. This not only reduces format compatibility issues and manual calculation errors but also saves time spent on data processing.

4.14 Online Statistical Modeling and Analysis

Following data collection, researchers typically rely on perform statistical modeling and analysis. Traditionally, this required exporting data from the research platform to specialized software like SPSS and Stata. This not only requires addressing data format compatibility but also demands that researchers master the operational logic of different tools. Among these professional software, only a few are non-programming, creating a technical barrier for researchers without programming knowledge. Credamo has built-in multiple mainstream modeling and analysis tools (Luan et al., 2025), covering methods such as cross-tabulation, reliability and validity analysis, linear regression, RFM modeling, principal component analysis, partial correlation analysis, chi-square goodness-of-fit test, and Kappa coefficient analysis. This allows researchers to perform analyses without data export, thereby avoiding format compatibility concerns. The platform features a no-code, drag-and-drop interface for modeling, enabling researchers to generate results through simple selection and configuration. Furthermore, the modeling analysis provided by Credamo includes functions such as intelligent interpretation, data visualizations, and AI-generated insights, with professional analysis results outputted with one click.

4.15 ReportGPT

When faced with complex modeling results, researchers often need specialized knowledge to compile them into professional reports—a process that requires not only writing skills and data analysis capabilities but also considerable time. Credamo's ReportGPT offers an effective solution to this challenge. This feature generates AI-powered analytical text based on user inputs and data outputs. It

can, for example, automatically interpret charts, explain statistical models, and detail regression analysis results—thereby enhancing research efficiency.

5. Applications

With its suite of advanced functionalities, Credamo offers diverse applications in both academic and commercial fields, addressing the varied requirements of different user groups (Table 1).

Table 1. Applications of Credamo in Academic and Commercial Fields

Application Fields of Credamo	Specific Application Settings of Credamo
Academic Application Settings	Randomized Experiment
	Longitudinal Study
	"1-to-1" and "1-to-many/multi-group" Matching
	Behavioral Experiment
Commercial Application Settings	Product Concept Test
	Product Packaging Test
	Commodity Display Test

5.1 Academic Application Settings

Credamo's academic applications include Randomized Experiment, Longitudinal Study, "1-to-1" and "1-to-many/multi-group" Matching, Behavioral Experiment, etc. Researchers across multiple fields have used the platform to conduct studies and achieved rich research outcomes.

(1) Randomized Experiment

In research, it is sometimes necessary to randomly assign participants to different conditions that involve minor variations in a questionnaire, while keeping the core content identical. Credamo's randomiser (under Flow Control) enables users to achieve this (Zhu et al., 2022). For example, if a questionnaire needs to divide participants into 4 groups (with only partial content differing across groups), users can split the questionnaire into 6 distinct blocks (add more as needed) and name each block (e.g., "Start Block", "Scenario Block 1", "Scenario Block 2", "Scenario Block 3", "Scenario Block 4", "End Block"). Then, users can place the 4 scenario blocks (1 to 4) into the randomiser. In this way, each participant will only randomly see one of the 4 scenario blocks when opening the questionnaire, while all participants will see the same "Start Block" and "End Block". Another example: if users need to conduct a 2×2 factorial experiment, two randomisers can be used. Taking a between-subjects' 2×2 experimental design (Brand Type: High-end vs. Low-end $\times$ Advertising Format: Popular vs. Refined) as an example, users need to set two randomisers: the first randomly displays blocks of different brand types (High-end vs. Low-end), and the second randomly displays blocks of different advertising formats (Popular vs. Refined). This enables participants to be exposed to four possible combinations. Credamo has been adopted in randomized experimental studies across multiple disciplines, yielding published research in fields including marketing (Chen et al., 2024e; Zheng et al., 2024), tourism (Xu et al., 2025), psychology (Fu et al., 2024; Liu & Liu, 2024), and health (Li et al., 2023). These studies attest to the validity and utility of the platform's randomized experiment function.

(2) Longitudinal Study

When researchers need to explore dynamic causal relationships between variables, capture the changing trends of research objects over time, or verify the stability and persistence of a phenomenon, they need to conduct multi-period surveys—and Credamo has this capability (Molina et al., 2023). The

process of launching the initial wave of a longitudinal survey on Credamo is the same as that of a regular survey. However, since Credamo's multi-period tracking relies on the platform's own sample pool, users must select a non-anonymous channel when launching the initial wave to enable subsequent survey processes. To mitigate participant attrition across waves, securing a high-quality initial sample is critical. The platform therefore recommends applying a pre-screening filter (e.g., requiring participants to have completed at least 100 prior studies) during recruitment for the first wave. This increases the likelihood of retaining reliable participants for longitudinal tracking. After the first wave of data is collected, users can select the respondents for follow-up on the "Data" page and click "Export to Sample Library" to add these participants to the historical sample library. At this point, users can also click "Sample library" in the top menu to manage the participants. For subsequent waves, users need to set the distribution channel to "Sample library". With its high-quality dedicated sample library, automated tracking process, and high sample retention rate, Credamo significantly reduces the sample attrition cost and implementation difficulty of longitudinal studies. This function has been applied by scholars in fields such as behavioral science (Chen et al., 2024b) and organizational behavior (Wang et al., 2025b).

(3) "1-to-1" and "1-to-many/multi-group" Matching

When scholars need to conduct surveys on participants with specific relationships (e.g., leader-employee, parent-child, teacher-student, or corporate work teams), they need to carry out "1-on-1" (pairing of 2 people with different roles) or "1-to-many" (pairing of at least 3 people with the same role) surveys—and Credamo supports this function (Wang et al., 2025f). Prior to launching a paired or group study, users must complete preparatory steps. If users plan to use their own existing participants for pairing, they need to communicate with these participants to minimize participant attrition, guide them to follow the official WeChat account, register for a personal center, and inform them not to unfollow Credamo's official WeChat account during the survey period. If users need to recruit unfamiliar participants, they must consult platform support. Following these preparations, users can follow the detailed steps in the "Help Center" to design questionnaires, distribute questionnaires, conduct sample/group matching, and re-distribute questionnaires. Currently, many scholars have used Credamo for pair and group surveys, fully verifying its powerful capabilities in such surveys.

(4) Behavioral Experiment

Researchers sometimes need to study individual behavioral patterns and psychological mechanisms by controlling specific conditions, presenting stimuli, and recording individual responses. Credamo's HBO function provides strong support for researchers to conduct behavioral experiments. A key advantage is its accessibility: no programming skills or software/plug-in installation are required—users can complete experimental design in minutes with just a few clicks. The steps are as follows: First, users only need to select "Human Behavior Online" from the advanced question types in the lower left corner of the questionnaire design interface to enter the "HBO Behavioral Experiment" page. Subsequently, the user will proceed to enter the "Experiment name", "Basic settings" and " Experimental stimuli" interfaces one by one to make the necessary settings. After saving these settings, the experiment can be run. The HBO function has gained attention and adoption among scholars across multiple fields. It has yielded outcomes in psychology (Wu et al., 2023) and marketing (Wang et al., 2025d), confirming Credamo's significant advantages in conducting online behavioral experiments.

5.2 Commercial Application Settings

In the commercial sector, Credamo has launched three functions—Product Concept Test, Product

Packaging Test, Commodity Display Test—which provide applied research contexts with solutions that are easy to operate, widely accessible, and cost-transparent (Song et al., 2025; Yao & Ren, 2025).

(1) Product Concept Test

Credamo's Product Concept Test employs industry-recognized concept testing methods. It provides a comprehensive evaluation of one or more product concepts based on key market performance factors, supporting both new product development and the optimization of existing products. The operation steps of this function are simple. First, create a project: access the system, click "Application", find "Product concept test" click "Use Now". Next, follow the interface prompts to create the project and edit it. After completing all the above configurations, users can also review and modify the configured content, then enter the next interface; after confirming no errors, access the publishing page. After entering the publishing page, users need to edit content related to the questionnaire release. After publishing the project, the platform may automatically collect data, and users can then go to the "Data" page to perform operations like data cleaning. Finally, when there is sufficient data available for analysis, users can then view the analysis report. This function enables a multi-dimensional assessment of product concept attributes, providing actionable insights for subsequent optimization.

(2) Product Packaging Test

Credamo's Product Packaging Test takes product packaging as the main analysis object, focusing on exploring the impact of packaging elements on market performance, brand indicators, and other metrics, thereby providing references for users to optimize product packaging. The operation steps of Credamo's Product Packaging Test are also very simple, and the operation process is basically the same as that of Product Concept Test. Users only need to access the system, click "Application", find "Product packaging test", click "Use Now," and then complete the Product Packaging Test following the process similar to the above. With this function, users can obtain targeted consumer feedback on product packaging, providing references for improving packaging details.

(3) Commodity Display Test

Credamo's Commodity Display Test can analyze and evaluate the display of products on shelves, exploring how to arrange products on shelves to achieve higher sales revenue and helping users' products stand out. Similar to Product Concept Test and Product Packaging Test, the operation process of Commodity Display Test is also very simple. Users only need to access the system, click "Application", find "Commodity display test", click "Use Now", and then complete the test following the same process. This testing function can help users explore the in-store/online merchandise arrangement methods that are most conducive to stimulating purchasing behavior, and find the most suitable display solution for their own products.

6. Conclusion and Future Outlook

6.1 Conclusion

First, Credamo provides a one-stop full-process solution for online surveys and experiments, bringing significant convenience to researchers. By seamlessly combining the three core modules of "Questionnaire and Experimental Design—Sample ServicesData Analysis", Credamo allows researchers to complete the entire process—from questionnaire/experiment creation and targeted sampling delivery to data modeling and analysis — without repeatedly switching between disparate tools. This integrated approach addresses several key challenges: it reduces the time cost and technical complexity associated with using multiple platforms; it mitigates cost uncertainty by automating the alignment of study design (e.g., questionnaire length, complexity) with sample pricing; and it enhances

data quality by reducing participant attrition and non-serious responses. Consequently, it improves overall research efficiency and ensures workflow continuity.

Second, Credamo has made strong breakthroughs in functionality, enhancing the depth and quality of online research from multiple dimensions. In terms of questionnaire and experimental design, Credamo offers highlighted functions including Flow Control, HTML/JS/AI Agent Embedding, Cross-Platform Information Transmission, HBO, Multimodal Physiological Data Collection, PsychoPy/jsPsych Experiment Embedding, SurveyGPT, and oTree. In sample services, it features functions such as Global Sample Coverage, Data Quality Control, Multi-period Survey, and Pair and Group Survey. In data analysis, it provides functions like Data Coding, Online Statistical Modeling and Analysis, ReportGPT. Collectively, these highlighted functions offer an effective solution to the pain points of traditional methods, such as high costs, low efficiency, and high technical barriers.

Third, Credamo has achieved widespread application in both academic and commercial fields, becoming an important tool for scientific research and market practice (Zhang et al., 2022; Zhu et al., 2025). Academically, Credamo has been applied in a range of contexts in multiple disciplines, including psychology (Zhang & Cheng, 2023; Zhan & Ding, 2025; Yin & Fei, 2024; Zhang et al., 2025), marketing (Yang, 2022; Wang & Wang, 2024; Li & Zhou, 2024; Chen et al., 2024c), management (Long & Feng, 2025; Feng et al., 2025; Chen, 2024), and medicine (Lu et al., 2024; Li et al., 2024; Yang et al., 2024). It supports application settings such as Randomized Experiments, Longitudinal Studies, "1-to-1" and "1-to-many/multi-group" Matching, Behavioral Experiments, providing scholars with a scientific, efficient, and convenient research approach. Commercially, Credamo has launched functions such as Product Concept Test, Packaging Test, Display Test. Enterprises do not need to master professional questionnaire design or modeling knowledge—they only need to provide product information to complete market research. This lowers the technical threshold for enterprises to conduct research and makes research work more efficient.

Finally, Credamo provides high-quality data support for the production of top-tier academic achievements across multiple disciplines. According to rough statistics, in the past three years, more than 50 papers published in UTD24/FT50 journals have been completed using Credamo, covering fields such as marketing, business ethics, management, and operations management. In marketing, researchers have used Credamo to collect data and published numerous papers in journals including Journal of Marketing Research, Journal of Marketing, Journal of Consumer Research, Marketing Science, Journal of Consumer Psychology, and Journal of the Academy of Marketing Science. These papers cover hot topics such as fashion marketing (Wang & Wei, 2025), referral reward mechanisms (Xu et al., 2023), virtual influencer effects (Zhou et al., 2024), e-commerce live streaming (Gu et al., 2024), social media advertising (Huang & Lin, 2025), educational product preferences (Chen et al., 2024c; Wang et al., 2025c), gender and consumption (Chen et al., 2023; Dai et al., 2024), pricing strategies (Fan et al., 2022), color saturation's impact on luxury brand status perception (Zhou et al., 2025) and visual product frame effects on consumer choice deferral (Jia et al., 2024). In business ethics, Journal of Business Ethics has repeatedly included studies conducted by researchers using Credamo, covering topics such as the impact of human-computer interaction on charitable donations (Zhou et al., 2022), unethical workplace behavior (Lei, 2023; Nong & Mei, 2025; Ye et al., 2025), and supervisor-subordinate relationships (Huang et al., 2023; Pan et al., 2024; Mei et al., 2025). Within management science, journals including Organization Science, Human Resource Management, Journal of Management, Journal of Management Studies, Organizational Behavior and Human Decision Processes, and Human Relations have published studies on the spillover effects of community norms

(Molina et al., 2023), employee management (Zhu et al., 2022; Ma et al., 2023; Liu et al., 2024; He et al., 2025), and leader traits (Ren et al., 2023; Liu et al., 2024)—all supported by data collected via Credamo. In operations management, Production and Operations Management has also included studies where researchers used Credamo to collect data to explore antecedent factors of product demand (Ding et al., 2021) and sales (Zhang et al., 2023). Collectively, Credamo is gradually becoming an important force driving breakthroughs in academic research.

6.2 Future Development Directions

First, Credamo will further break through in its one-stop core functions and highlighted functions. In terms of questionnaire and experimental design, Credamo will continue to optimize hardware equipment to further improve the stability and accuracy of multimodal data acquisition—for example, upgrading eye-tracking technology to capture more subtle eye movements, and developing more lightweight EEG equipment to reduce signal interference. Regarding sample services, Credamo will continuously expand its sample pool, further refine demographic tags, and recruit more samples from special groups to meet research needs in niche fields. For data analysis, Credamo intends to incorporate more advanced analysis and modeling functions to help users further tap into data value.

Second, Credamo will soon launch the OPENS (Open Panel Ecology Norming Studies) and continue to promote its development. The goal of the OPENS initiative is to establish an open research platform of international standing for the scholarly community. By establishing a traceable sample pool of millions of participants and a normative experimental data system, it will support scholars in conducting top-tier research comparable to that published in Nature and Science. Credamo will conduct in-depth cooperation with research teams in various fields and organize academic exchange activities. The first batch of OPENS will be launched soon, and research data will be shared regularly with the release of result reports. Looking ahead, Credamo envisions developing a more comprehensive open data platform. This will involve incentivizing researchers to upload and share high-quality datasets, alongside establishing standardized citation and reward mechanisms, thereby enhancing data utility and reuse.

Third, Credamo will continue to expand its application in commercial settings. The platform is set to introduce new modules including Print Ad Testing, Brand Perception Testing, and Attribute Combination Analysis. With Print Ad Testing, users can evaluate the creativity and delivery effect of print (image-text) advertisements to provide references for further optimization. Brand Perception Testing assesses how specific brand assets influence consumer perceptions, helping users select the design strategies that best align with business objectives. Attribute Combination Analysis will use TURF (Total Unduplicated Reach and Frequency) analysis to explore product attribute combinations with the strongest market competitive advantages. Through these functions, Credamo will provide enterprises with more comprehensive and accurate market research solutions.

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The data that support the findings of this study are available from the corresponding author upon reasonable request.

Ethics Statement

The authors declare no conflicts of interest.

Conflicts of Interest

The authors declare no conflicts of interest.

Disclaimer of Artificial Intelligence (AI) Usage in Manuscript Preparation

The authors strictly followed academic norms, using AI solely for linguistic editing and proofreading (not content generation) with no academic ethics violations.

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