A Holistic Approach to Data Quality
<table>
<thead>
<tr>
<th>Page</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>03</td>
<td>Introduction</td>
</tr>
<tr>
<td></td>
<td>- The Toluna Way to Data Quality</td>
</tr>
<tr>
<td></td>
<td>- Quality in Three Dimensions</td>
</tr>
<tr>
<td>11</td>
<td>Research Design</td>
</tr>
<tr>
<td></td>
<td>- Target Groups &amp; Quotas</td>
</tr>
<tr>
<td></td>
<td>- Sample Size</td>
</tr>
<tr>
<td>21</td>
<td>Fine-Tuning Data Analysis</td>
</tr>
<tr>
<td></td>
<td>- Post-Field Quality Checks</td>
</tr>
<tr>
<td></td>
<td>- Weighting</td>
</tr>
<tr>
<td>05</td>
<td>The Essence of Quality: Respondents</td>
</tr>
<tr>
<td></td>
<td>- Identifying Genuine Respondents</td>
</tr>
<tr>
<td></td>
<td>- Quality Checks in Real-time</td>
</tr>
<tr>
<td></td>
<td>- Guarding Against Bots and Inauthenticity</td>
</tr>
<tr>
<td></td>
<td>- Ensuring Representation</td>
</tr>
<tr>
<td>14</td>
<td>Ensuring Top-Quality Fieldwork Materials</td>
</tr>
<tr>
<td></td>
<td>- Questionnaire Design</td>
</tr>
<tr>
<td></td>
<td>- Translation</td>
</tr>
<tr>
<td></td>
<td>- Survey Scripting</td>
</tr>
<tr>
<td>24</td>
<td>Partnering for Quality Insights</td>
</tr>
<tr>
<td>09</td>
<td>Harnessing our Platform for Quality Data</td>
</tr>
<tr>
<td></td>
<td>- Support, Guidance, and Assurance on TolunaStart</td>
</tr>
<tr>
<td>18</td>
<td>Ensuring Data Quality in Fieldwork</td>
</tr>
<tr>
<td></td>
<td>- Sampling</td>
</tr>
<tr>
<td></td>
<td>- Fieldwork Timing</td>
</tr>
</tbody>
</table>
Introduction

The Toluna Way to Data Quality

In the ever-evolving landscape of market research, the essence of genuine, high-quality data cannot be understated. This e-book illuminates Toluna’s holistic approach to achieving unparalleled data quality at every juncture, fortified by innovative technology, strategic design, and collaborative expertise.

Our commitment begins with the engagement of genuine respondents. Using advanced technology and analytics, we combat challenges posed by insincere participants, laying the foundation for unbiased, resonant results. Further, our dedication extends to meticulously crafted, mobile-optimized questionnaires, ensuring every response is both authentic and insightful.

At Toluna, collaboration isn’t just a value—it’s our operational mantra. By sharing insights and best practices, our combined expertise champions reduced inaccuracies and an elevated research experience.

Real Respondents: Our global panel nurtures deep respondent relationships, ensuring genuine and invested participation.

Rigorous Research: In partnership with Harris Interactive, we prioritize continuous learning, granting our researchers access to MRS-accredited resources and training through the Market Research Society’s Advanced Certificate program.

Robust Technology: Our user-friendly research platform, Toluna Start, seamlessly combines our vetted respondents and research expertise with advanced technology, enabling researchers of all experience levels to conduct best practice research studies at scale and speed.

Reliable Results: As active contributors and partners with esteemed industry bodies like ESOMAR and the MRS, our dedication to outstanding data quality is unwavering. Our leadership in industry initiatives is a testament to our unparalleled expertise.

In partnering with Toluna, you’re not just accessing quality data. You’re embracing a commitment to precision, trustworthiness, and innovative thinking. Dive into this e-book and discover why Toluna is the gold standard in quality market research.
Introducing Toluna’s holistic approach to quality. By fusing advanced AI technology, human expertise, and user-centric design, we’ve created a unique triangle of excellence. From rigorous respondent recruitment and continuous engagement to strategic study design and meticulous post-fieldwork checks, we ensure every phase is touched by this triple-tiered commitment. Experience an all-encompassing dedication to quality, ensuring insights that stand tall on the pillars of trust and precision.
The Essence of Quality: Respondents
Identifying Genuine Respondents

Why it Matters
Reliable insights hinge on respondents being authentic, attentive, and driven by more than just incentives.

Our Strategy
We harness automated checks and real-time analytics to assess respondent activity, translating these data points into individual quality scores. These scores dictate a respondent’s continued eligibility for surveys.

Relationship Building
By fostering a deep connection with our panelists through our dynamic Toluna.com community, we motivate them to provide genuine feedback. Recognizing their efforts not only elevates their involvement but also uplifts the quality of data they provide.

Quality Checks in Real-time

Tools at Play
Advanced algorithms, AI, and machine learning drive our real-time data quality assessment.

Monitoring
We continuously observe respondents’ behavior, adjusting their individual quality scores according to their contributions. If someone doesn’t meet our standards, they’re automatically precluded from future surveys.
Guarding Against Bots and Inauthenticity

Real Respondents
Through integrations like Google’s invisible re-CAPTCHA and double opt-in procedures, we ward off bots. AI further refines this by filtering out nonsensical or inappropriate responses.

Genuine Respondents
From registration onwards, we employ layered checks—linked account detections, blacklisted domain checks, and consistent device monitoring using digital fingerprinting, geo-location, and cross-referenced IP address checks. In-survey behaviors, like language inconsistencies and extreme biases, are also closely watched. For added integrity, we cap survey participation at five daily.

AI-driven Scrutiny
We employ in-house natural language processing to filter out open-ended answers that fail to meet our quality standards, ensuring the relevance of responses.

Registration Checks
Pre-Survey Checks
Post-Field Checks
Evaluation of respondent's quality score

If the respondent quality score is good, the respondent can take another survey.
Ensuring Representation

Diverse Recruitment for Unbiased Insights

Why it Matters: A wide-ranging, impartial group of respondents is crucial for credible insights.

ThinkAction™
Building a Global Community

Innovative Recruitment
We’ve cultivated our global panel through ThinkAction™, our proprietary affiliate network. Leveraging diverse channels from social media to display advertising, we ensure a rich, engaged respondent pool.

Collaborative Ecosystem

Strengthening Our Panel
We occasionally bolster our Toluna panel with trusted partner panels. These partners undergo a stringent vetting process, from detailed quality checks to scheduled assessments, ensuring their respondents meet our exacting standards.
Harnessing our Platform for Quality Data.
Support, Guidance, and Assurance on TolunaStart.
Support, Guidance, and Assurance in Tools

Our suite of intuitive tools ensures you harness best research practices effortlessly. While you may run projects on your platform, our knowledge base is open to you, championing the power of shared expertise.

Data Quality and Tools
Research is layered with nuance and considerations. That’s why we’ve designed our tools to simplify research theory, letting you operationalize with confidence. Launching a project with Toluna Start assures best practice alignment, securing impeccable data quality.

To curate a seamless user experience, our tools continually undergo UX tests. This foresight drastically curtails potential errors.

How Our Tools Safeguard for Data Quality

- On spotting any anomaly, you receive nudges and alerts.
- Direct access to our support team for specific queries.
- Integrated support resources, from tutorials to best practice guides.
Beyond Tools and Respondents: The Design Matters

Quality data is an orchestration of genuine respondents, cutting-edge tools, and impeccable research design. Our in-house experts ensure this trifecta by implementing and sharing top-tier practices across various research domains.

Target Group & Quotas

Relevance to Data Quality
Tailored data springs from a tailored audience. Precise target group definitions, along with quota structures, are pivotal. Fumbled structures can inadvertently distort results.

Our Expertise in Play
With an unmatched library of panel profiling data, we’re poised to match your research to its perfect audience. Regardless of the project’s distinctiveness, our experts guide you, ensuring the data mirrors your desired demographic.

Collaborative Expertise
Even if you chart your own target and quota structure, our reservoir of knowledge and expertise is yours to tap into.
Sample Size

**Relevance to Data Quality**
Volume imparts reliability. Sample sizes that are too small may result in unreliable data due to statistical shifts, potentially yielding inaccurate or changing results.

**Our Recommendation**
We recommend a baseline sample size of n=385 for each subgroup under analysis, adhering to the 95% confidence benchmark with only a 5% margin of error. For certain scenarios, a reduction to n=275 might suffice yielding a 90% confidence level.

**Shared Wisdom**
Your chosen sample size or quota structure stands to benefit from our expertise. We share our target group and quota cheat sheets, ensuring you’re well-equipped every step of the way.

---

Toluna’s sample size calculator

<table>
<thead>
<tr>
<th>Margin of error at 95% confidence level</th>
<th>Minimum recommended sample size per sub-group where the target population is estimated at N=5,000,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>10%</td>
<td>97</td>
</tr>
<tr>
<td>7.5%</td>
<td>171</td>
</tr>
<tr>
<td>5%</td>
<td>385</td>
</tr>
<tr>
<td>2.5%</td>
<td>1,537</td>
</tr>
<tr>
<td>1%</td>
<td>9,586</td>
</tr>
</tbody>
</table>
Ensuring Top-Quality Fieldwork Materials

Fieldwork materials can make or break data quality. An engaged respondent can lose interest with a poorly constructed questionnaire or a misinterpreted translation. The following is how we optimize these crucial materials.
Questionnaire Design

A questionnaire is your gateway to data. Any flaw here can skew your results, leading to respondent confusion, loss of engagement, or—in the worst case—respondents feeling compelled to give inaccurate information.

Our Expertise
With two decades in online research and a comprehensive in-house research program, our tailored approach ensures:

- Questions aligning with your brief, considering respondents and the digital medium.
- Inclusion of our in-survey quality checks for pinpointing disengaged respondents.

Collaboration
If you bring your own questionnaire, our team reviews and fine-tunes it for optimized results. We also offer:

- A cheat sheet on best practice questionnaire design.
- Masterclasses on questionnaire crafting.
- Pre-templated solutions via Toluna Start.
- Fresh insights from our research and industry developments.

Tip
To avoid respondent fatigue, consider using closed-ended questions first, and when needed, follow up with an open ended question.
Translation
Precise wording matters. Inaccurate translations can distort meaning, jeopardize multi-country study comparisons, or disengage respondents.

In-House Translation Experts
A small nuance in question wording can make a big difference in the responses you receive, which is why our experts:

- Are native speakers or have advanced degrees in their language of expertise.
- Boast 3+ years in specialized translation.
- Undertake a rigorous “four-eye” review for every translation project.

Quality Control
Our external translation partners undergo meticulous vetting, ensuring:

- Upheld quality standards and procedures.
- Preliminary testing before client project initiation.
- Scheduled and impromptu quality reviews.

Resource Sharing
Even if you’re handling translations, benefit from our:

- Translation & localization cheat sheet.

See Translation
Survey Scripting

Survey presentation affects engagement and comprehension. A visually pleasing, device-compatible survey leads to accurate and comprehensive responses.

Our Approach
When we script your survey:

- It aligns with our best practices.
- Undergoes device-specific testing by two Toluna experts

DIY with Confidence
Utilizing Toluna Start? Enjoy auto-optimized survey designs that are also device-friendly. Rest easy knowing that your survey will automatically follow best practice survey design.

Extending Expertise
Scripting on another platform? We still support with:

- Best practice survey design cheat sheets.
- A variety of mobile-compatible question templates via Toluna Start.
- Latest insights from our ongoing research and industry contributions.
Ensuring Data Quality in Fieldwork

Both sampling strategies and fieldwork timing play pivotal roles in ensuring data quality. Ensuring unbiased, representative data is our top priority. The following is our approach to these crucial steps.
Sampling

Proper sampling minimizes bias. A randomized selection of respondents enhances the representativeness of the sample, mirroring larger population views.

Our Approach
We harness the power of algorithms and AI for our sampling:

- Achieving a near-random process, our algorithms efficiently pinpoint appropriate respondents, minimizing panelist dissatisfaction from unsuitable survey invitations.
- These algorithms consider external survey-related factors and respondent specific variables.
- In addition to algorithm-driven sampling, respondents can select surveys, introducing another randomizing factor.

Committed to Continuous Improvement:
Our AI-driven algorithms are in a state of ongoing development. We conduct quarterly assessments of their randomization effectiveness, with our most recent evaluation showing promising progress, affirming our dedication to unbiased sampling.
Fieldwork Timing

Different respondents, different availabilities. Variables like weekdays, specific times, or even events can introduce ‘invisible skews’. The aim is to gather data from a diverse respondent pool that embodies your target group.

Our Approach

Our seasoned project managers understand the timing implications on a study’s representativeness. They’re ready to flag potential concerns.

Our research experts are happy to support you in determining the best timing and turnaround time for your project. Every project and target group is unique, and therefore, requires bespoke considerations. Our knowledgeable project managers are aware of the impact fieldwork timings can have on a study’s representativeness and will advise on any watch-outs to consider.
Fine-Tuning Data Analysis

Once data collection concludes, meticulous steps ensure the preservation of data quality. Two pivotal stages include post-field data quality checks and weighing principles.
Post-Field Quality Checks

External factors can lead to respondent disengagement. Post-field checks spot and exclude such data, capitalizing on in-survey quality checks.

Our Approach
For projects under our supervision:

- We blend technology, research acumen, and data science to appraise every respondent’s data quality.
- This includes reviewing flagged respondents, assessing open-ended responses for relevance, and re-verifying data using automated syntax.

DIY Projects
For self-run checks or when utilizing our sample/DIY platform, we offer:

- Automated in-survey quality checks filter out respondents who don’t meet our standards.
- Insights from our research and industry-wide best practices.
Weighting

Unmet quotas during sampling necessitate weighting to ensure sample representativeness. However, excessive weighting can distort data, amplifying unrepresentative responses.

Our Strategy
Benefit from our expertise with:

- Weighting is proportionate to sample robustness. Lower sample sizes warrant cautious up-weighting to prevent skewed results.
- Best practices, including recommended weight application, are detailed in the accompanying table below.

<table>
<thead>
<tr>
<th>Sample size of group to be weighted</th>
<th>Maximum recommended weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;250</td>
<td>3.0</td>
</tr>
<tr>
<td>251-750</td>
<td>4.0</td>
</tr>
<tr>
<td>&gt;750</td>
<td>5.0</td>
</tr>
</tbody>
</table>

For Independent Weighting
Our specialists follow stringent guidelines for data processing:

- Toluna Analytics’ integrated weighting function automatically fine-tunes your data based on industry best practices.
Partnering for Quality Insights

Your pursuit of quality insights is our priority. Our comprehensive research services promise proactive counsel and round-the-clock assistance for both isolated projects and enduring partnerships.

How We Assist:

Continuous Engagement: Reach out anytime for clarity, advice, or backing on any facet of our quality frameworks.

Skill Enhancement: We extend bespoke training and guidance—catering to individuals or groups—to promote superior quality achievement.

Consider us your devoted ally in upholding research excellence.
Questions? please contact us.