

Title: Validating Social Media-Based Survey Sampling: Evidence from A/B Testing and Experience Sampling with Boomerang Ideas

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Abstract: This research validates the use of targeted social media recruitment as a credible alternative to traditional online panels in survey-based research. Using data from two empirical studies, we demonstrate that social media users not only replicate known cognitive biases (e.g., anchoring effects) but also outperform traditional panel participants in attentiveness, data quality, and retention in longitudinal surveys. We present evidence from an A/B test conducted in Switzerland (N = 221) and a large-scale experience sampling benchmark in the US (N = 2,000). Our findings support the use of social media platforms such as Facebook, Instagram, LinkedIn, and Snapchat as reliable tools for fast, scalable, and high-quality survey data collection.

1. Introduction Traditional survey panels often suffer from non-naïveté, low attentiveness, and high dropout rates. With the increasing integration of behavioral science and digital methods, social media platforms offer an untapped participant pool that may solve key challenges in sampling. This research investigates the validity of using social media ads for participant recruitment in both experimental (A/B) and longitudinal (experience sampling) studies.

2. Methodology Two studies were conducted:

- **Study 1: A/B Test Study (Switzerland)**
 - Objective: Replicate the anchoring effect
 - N = 221 social media users recruited via Facebook, Instagram, LinkedIn, Snapchat
 - Participants randomized into high-anchor (CHF 340/month) vs low-anchor (CHF 75/month) conditions
 - Outcome: Interest in buying a CHF 50/month transport subscription
- **Study 2: Experience Sampling Benchmark (USA)**
 - N = 2,000 participants (1,000 Boomerang; 1,000 Qualtrics)
 - Two waves with two-week interval
 - First survey: 86 questions, median duration = 23 minutes
 - Second survey: 21 questions, median duration = 4 minutes
 - Retargeting through Meta Messenger with a chatbot ("Barbara")

3. Results 3.1 A/B Test (Study 1)

- High-anchor group showed significantly more purchase interest (M = 3.33) vs low-anchor (M = 2.86), $p < .001$
- Randomization successful: no significant differences in age, gender, platform
- Confirms internal validity of experiments via social media

3.2 Experience Sampling Benchmark (Study 2)

Metric	Boomerang	Qualtrics
Completion rate (both waves)	42%	20%
Passed attention checks	81%	37%
Response length (open Qs)	176 chars	151 chars
Trust in science (mean)	2.91	3.04
Survey experience score	3.76	3.96

Participants from Boomerang were more attentive and less prone to social desirability bias. No significant difference in fluid or crystallized intelligence was found between the two groups. Younger respondents were underrepresented across both platforms.

4. Discussion The results show that social media recruitment is not only viable, but in some areas superior to traditional panels. Participants recruited via social media demonstrated lower panel mortality, better engagement, and more authentic answers. Limitations include demographic skews and the need for further cross-country validation.

5. Conclusion Boomerang Ideas' approach to social media-based recruitment delivers high internal validity, high-quality data, and scalable access to diverse samples. These findings support broader adoption of social media as a sampling method in survey research.

6. References

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