

Lean Research Working Paper

Draft for comment, revised 03/18/2015

Note: This is an early draft of a working paper being developed by researchers, faculty and graduate students from Tufts Fletcher School, Feinstein International Center, and MIT D-Lab.¹ Its purpose is to stimulate dialogue on this topic among practitioners, academics, policy makers, funders and students conducting research in the contexts of international development and humanitarian work. We invite you to share your related experiences, thoughts, and comments by emailing leanresearch-admin@mit.edu.

Lean Research: Redefining Rigor

Here you come to ask us the same silly questions that you go sell to aid sponsors. Now when the aid comes you keep it for yourself. I don't want to answer any question. Go take the answers for the ones we provided last year.

Root Capital, a nonprofit social investment fund, encountered this objection from a Burkinabe mango farmer in 2011 and, in response, developed a client-centric evaluation approach.² Yet this is not an isolated remark: other academic, nonprofit, and public-sector researchers carrying out social science field work with populations facing poverty, displacement, and other forms of vulnerability have been accused by research subjects³ of “stealing stories” and extracting large amounts of data without offering local communities and stakeholders anything in return.⁴ “Why,” one East Timorese teenager asked Columbia University’s Michael Wessells, “should we talk with people who come here and ask many questions but do nothing to help us?”⁵

While most field research in developing countries is undertaken with the goal of eventually helping improve the lives of marginalized people, research with human subjects can be disrespectful, irrelevant and inefficient. In addition to potentially harming the welfare of subjects or simply being extractive, research that fails to acknowledge its own status as a

¹ Authors include: Paula Armstrong (Tufts Fletcher School), Kim Wilson (Tufts Fletcher School), Rachel Gordon (Feinstein International Center), Elizabeth Hoffecker Moreno (MIT D-Lab), Roxanne Krystalli (Feinstein International Center), Kendra Leith (MIT D-Lab), and Bryan Stinchfield (Tufts Fletcher School).

² Root Capital, “Data that Creates Value: A Client-Centric Approach to Impact Evaluation” (draft), 2.

³ This paper refers to research “subjects” rather than “participants” because this term better reflects current social science research dynamics.

⁴ Eileen Pittaway, Linda Bartolomei, and Richard Hugman, “‘Stop Stealing Our Stories’: The Ethics of Research with Vulnerable Groups,” *Journal of Human Rights Practice* Vol. 2, No. 2 (2010), 236.

⁵ Michael Wessells, “Reflections on Ethical and Practical Challenges of Conducting Research with Children in War Zones: Toward a Grounded Approach,” in *Research Methods in Conflict Settings: A View from Below*, ed. Dyan Mazurana, Karen Jacobsen, and Lacey Andrews Gale (New York: Cambridge University Press, 2013), 94.

development activity and the power imbalances between researchers and subjects runs the risk of generating inaccurate findings.⁶ Even studies that avoid such pitfalls are frequently irrelevant or inaccessible to practitioners and policy-makers: Martin Ravallion, former director of research at the World Bank, writes of a “trade-off between publishability and relevance,” recognizing that “the set of research questions that are most relevant to development policy overlap only partially with the set of questions that are seen to be in vogue by the editors of the professional journals.”⁷ Indeed, a 2014 survey by the *Stanford Social Innovation Review* found that most practitioner respondents “believe that accessing articles is too expensive and that the findings do not reflect their particular situation or context.”⁸ In some cases, the reports are not downloaded at all. According to a World Bank study, “31 percent of its policy reports have never been downloaded and 40 percent have been downloaded less than 100 times. Moreover, 87 percent of its policy reports have never been cited.”⁹ Finally, some research is not right-sized: survey and interview protocols can include hundreds of questions and take hours to administer. These concerns undermine the potential for research to contribute to both positive developmental outcomes for subjects and sound decision-making in the international development space.

Lean Research has been developed by researchers, practitioners, and donors at leading development institutions who agree that the research process should generate beneficial outcomes for those involved – and most importantly, for research subjects. Drawing from human-centered approaches to development and design, Lean Research places the experience of the human research subject at the center of research design and implementation. Lean Research asks: if we are researching people in order to improve some aspect of their life, should not our research process also align with that objective? What would it look like to conduct

⁶ See Daniel Kobb, “Measuring Informal Sector Incomes in Tanzania: Some Constraints to Cost-Benefit Analysis,” *Small Enterprise Development* Vol. 8, No. 4 (1997), 45; Kim Wilson, John Hammock, and Mehvish Arifeen, “Data Without Damage: Researching the Financial Lives of the Poor,” Tufts University, 1; David Roodman, *Due Diligence: An Impertinent Inquiry Into Microfinance* (Washington, D.C.: Center for Global Development, 2012), 145.

⁷ Martin Ravallion, “Evaluation in the Practice of Development,” *The World Bank Research Observer* Vol. 24, No. 1 (February 2009), 27.

⁸ Christian Seelos and Johanna Mair, “The Role of Research in Social Innovation,” *Stanford Social Innovation Review*, 19 June 2014, accessed 18 March 2015, available from: http://www.ssireview.org/blog/entry/the_role_of_research_in_social_innovation.

⁹ Doerte Doemeland and James Trevino, “Which World Bank Reports are Widely Read?” Policy Research Working Paper WPS 6851 (Washington, D.C.: World Bank Group, 2014), accessed 18 March 2015, available from: <http://documents.worldbank.org/curated/en/2014/05/19456376/world-bank-reports-widely-read-world-bank-reports-widely-read>.

human-centered field research in a way that minimizes negative burden and waste while maximizing meaning and value for all stakeholders in the research process?

In the same way that Japanese manufacturers re-imagined the production process to minimize waste at all stages and maximize value for the end-users, Lean Research re-imagines the research process, from initial scoping and design through dissemination and uptake of research results. Like the Lean approach to production, a Lean approach to research involves establishing certain core principles that if implemented together, direct the process toward achieving its objective of maximum value and usefulness to stakeholders and minimum waste and burden, particularly as experienced by research subjects.

While the Lean production method is organized around three to five core principles (depending on the source), Lean Research is organized around four.¹⁰ In order for research in international development to achieve maximum benefit and positive impact, it should be:

1. Rigorous, regardless of methodologies employed;
2. Respectful toward research subjects, implementing partners, and all others engaged in the research process;
3. Relevant to research subjects, decision-makers and other key stakeholders; and
4. Right-sized, in terms of protocols and costs compared to the scope and potential usefulness and impact of the study.

Each of these principles is important on its own and already being applied to varying degrees in numerous studies. However, studies that are focused on just one of these principles with little, if any, attention to the others, continue to produce research that falls short of being enjoyable and valuable to research subjects, truly relevant to decision-makers, and cost-effective. Lean Research seeks better outcomes for subjects and end users through a framework that focuses attention on conducting each step of the research process in a way that reflects all four principles mentioned above. Like Lean production, the emphasis of Lean Research is on finding ways to implement these four principles together in an integrated, balanced manner.

In some cases, this requires that researchers re-design certain steps in the research process and re-think how they engage with stakeholders and subjects. When used as a guiding framework, the four principles of Lean Research can open a space to conduct research in new, exciting, and more fruitful ways. This paper will examine each of the principles in greater detail

¹⁰ Jan Stentoft Arlbjørn and Per Vagn Freytag, "Evidence of Lean: A Review of International Peer-Reviewed Journal Articles," *European Business Review*, Vol. 25, No. 2 (2013), 174-205.

and conclude with an overview of how the Lean Research approach was developed and how researchers, donors, and facilitators of research can become involved in its implementation and continued improvement.

Lean Research is Rigorous

A precondition for Lean Research is that it is rigorous; that is, that it adheres to the best practices and highest standards of a researcher's discipline or field of practice with respect to instrument design, sampling, data cleaning, and analysis. Rigorous research is also internally and, if applicable, externally valid (i.e., generalizable), as well as reproducible. Lastly, conducting rigorous research means that all relevant results are reported clearly, accurately, and transparently.

Ensuring internal validity in a development context is undoubtedly difficult.¹¹ John P. A. Ioannidis, Professor of Health Research and Policy at Stanford School of Medicine, argues that even in the highly-controllable domain of medical research, it is likely that "most current published research findings are false" due to error and bias.¹² Despite the obstacles posed by the inherently complex social field research environment, researchers have made immense strides in using scientific methods to address questions of poverty and development.¹³ Yet, as Dani Rodrik of the Institute for Advanced Study points out, these methods have shortcomings related to external validity.¹⁴ Given the diversity of research methods used across development-related disciplines, the Lean Research approach can be applied regardless of the chosen methodology. Rather than prescribe specific methods, it encourages researchers to carefully think through and document their preferred methodology to maximize validity and reproducibility, for only credible, transparent research can be truly respectful of subjects' time and form the basis for good decision-making by research consumers.¹⁵

¹¹ For a discussion of threats to internal validity in evaluative development research, including unrealistic counterfactuals, spillover effects, and heterogeneity, see Ravallion, 13-15.

¹² John P. A. Ioannidis, "Why Most Published Research Findings are False," *PLoS Med* Vol. 2, No. 8 (August 2005), 0696.

¹³ "What is Randomization?" Abdul Latif Jameel Poverty Action Lab, accessed 17 January 2014, available from: <http://www.povertyactionlab.org/methodology/what-randomization>.

¹⁴ Dani Rodrik, "The New Development Economics: We Shall Experiment, but How Shall We Learn?" *HKS Working Paper No. RWP08-055*, 24 October 2008, 32, accessed 17 January 2014, available from: <http://ssrn.com/abstract=1296115>.

¹⁵ For more on the importance of documenting methodology, see Karen Jacobsen and Loren Landau, "The Dual Imperative in Refugee Research: Some Methodological and Ethical Considerations in Social Science Research on

Another concern related to research rigor is the clear and accurate reporting of research results to stakeholders. A 2013 study by the Feinstein International Center found that relatively little research-based evidence is used in humanitarian decision-making due to organizations' "path dependence" (i.e., limiting of present options based on past decisions) and a lack of incentives to draw on research findings.¹⁶ One researcher notes that path dependence and incentive structures also impact the reporting of evidence: "Evidence gets managed to suit practitioners – quite possibly to check off the M&E [monitoring and evaluation] box but not to inform program adjustment and certainly not to abandon an ineffective program [...] It's easier to bend evidence by presenting selective findings than to face up to the evidence itself."¹⁷ The Stanford Center on Philanthropy and Civil Society's Christian Meelos and Johanna Mair echo this sentiment, warning that "[c]onsultants and academics have their own unique agendas that tempt them to over-deliver and over-interpret findings, and thus stretch their validity."¹⁸ The Lean Research approach encourages researchers to face up to evidence and accurately report their findings in the name of rigor, integrity, and responsibility toward research subjects. The basic considerations of rigor outlined above serve as a starting point for Lean Research. However, to be sufficiently rigorous, Lean Research also encompasses three additional principles: it is respectful, relevant, and right-sized.

Lean Research is Respectful

Respectful research emphasizes the dignity, and even delight, of the human subjects involved, treating them, in Elisabeth Jean Wood's words, "as *persons*, and not merely as sources of needed data."¹⁹ Five broad issues that researchers must grapple with when designing and carrying out respectful research include:

1. Meaningful consent;
2. Subjects' experience of the research process;

Forced Migration," *Disasters* Vol. 27, No. 3 (September 2003), 185-206. For more on reproducibility and the "replication standard," see Gary King, "Replication, Replication," *Political Science and Politics* Vol. 28 (1995), 443-499. For more on the interconnection between sound ethics and sound science, see Greg Koski and Stuart L. Nightingale, "Research Involving Human Subjects in Developing Countries," *The New England Journal of Medicine* Vol. 345, No. 2 (12 July 2001), 138.

¹⁶ James Darcy, Heather Stobaugh, Peter Walker, and Dan Maxwell, "The Use of Evidence in Humanitarian Decision Making," ACAPS Operational Learning Paper, Feinstein International Center, 2013.

¹⁷ Kim Wilson, "Lean Research: How Studying the Economic Lives of the Poor Might be Improved," July 2014, 4.

¹⁸ Seelos and Mair.

¹⁹ Elisabeth Jean Wood, "Reflections on the Challenges, Dilemmas, and Rewards of Research in Conflict Zones," in Mazurana, Jacobsen, and Andrews Gale, 299.

3. Compensation;
4. Protection of subjects' data; and
5. Subjects' capacity to benefit from and refute research findings.

The 1978 *Belmont Report*, issued by the newly-created National Commission for the Protection of Human Subjects in Biomedical and Behavioral Research in the aftermath of the infamous Tuskegee syphilis experiment, established the norm of voluntary, informed consent of all human subjects participating in research of any discipline (a similar norm had already been established in medical research by the 1949 Nuremberg Code and the 1964 Declaration of Helsinki).²⁰ Today, informed consent is widely viewed as “the cornerstone of research ethics.”²¹ Even though a consent process may be in place, it does not mean that subjects are truly free to reject participation in the study or drop out once it has begun. As Wessells points out, “How can one say ‘No’ when the cultural norms of hospitality and situational pressures such as expectations of family members may require that one say ‘Yes, I will talk with you.’”²² In the context of poverty, hope of receiving aid or other benefits as well as power relations between researchers and local communities may also lessen potential subjects' ability to freely walk away from a particular study.²³ Thus, ensuring that participation is truly informed (i.e., subjects understand how their data will be used and by whom, anonymity and confidentiality agreements, and how the data will be disseminated) and consensual may require engaging subjects themselves, members of the community, or other similar populations in the design of the study and its informed consent process.

Respectful research places subjects' dignity and delight, rather than maximum data extraction, at the center of the research experience. Hundred-question surveys that take hours to complete and enquire about deeply personal matters such as money, hygiene, and family relations show little respect for subjects' time and well-being. For example, a recent survey of low-income Kenyan households took “up to six hours” to complete and involved the collection

²⁰ Earl Babbie, “Chapter 2: Social Inquiry: Ethics and Politics,” *The Practice of Social Research*, 13th ed. (Boston: Wadsworth Publishing Company, 2012), 33-34. For the *Belmont Report* text, see <http://www.hhs.gov/ohrp/humansubjects/guidance/belmont.html>. For the Nuremberg Code, see <http://www.hhs.gov/ohrp/archive/nurcode.html>. For the Declaration of Helsinki, see <http://www.wma.net/en/20activities/10ethics/10helsinki/>.

²¹ S.R. Benatar, “Reflections and Recommendations on Research Ethics in Developing Countries,” *Social Science and Medicine* Vol. 54 (2002), 1138

²² Wessells, 93.

²³ *Ibid.*

of saliva samples to test subjects' stress hormone levels.²⁴ Such discomfort may increase subjects' likelihood of being untruthful – the chance of which, recent studies have shown, is quite high to begin with.²⁵ In contrast, evidence from the Advertising Research Foundation demonstrates that when survey “enjoyment increases, attention and engagement increase, which in turn affect data quality.”²⁶ There is no one-size-fits-all approach to creating an environment where subjects can enjoy the research experience. Doing so requires input from various stakeholders, creativity, empathy, and an honest assessment of what is reasonable to ask of subjects based on the extent to which they stand to benefit from participating in the research.

One way to augment subjects' and host institutions' benefits from research is to compensate them for their time and expenses. While it is true that paying subjects may lead to “poorer subjects with less power [being] ostracized or pressured to share the gains of payment,” not offering payment “can be considered exploitative” and may “bias the sample toward those who can afford the time to be interviewed.”²⁷ Payment, however, need not be financial to be meaningful. Consultation with community stakeholders can uncover culturally appropriate forms of compensation, which, in a Ugandan refugee camp for instance, may include sugar, coffee, or soda.²⁸ It is also crucial to consider the training, compensation, and fair treatment of enumerators, who play a key role in data collection and whose attitudes can significantly affect the accuracy of research findings.²⁹

The Lean Research approach stresses that researchers' capacity to show respect toward subjects does not end once research is complete. As Wood expresses it, “returning ‘home’ does not mean leaving the field: responsibilities to subjects continue, as do the researcher's responsibility for foreseeable consequences of her work.”³⁰ Data protection, for example, has

²⁴ Jeremy Shapiro and Johannes Haushofer, “NexThought Monday – Cash Transfers, Prejudice, and Mental Health,” *Next Billion Blog*, 19 May 2014, accessed 18 March 2015, available from: <http://nextbillion.net/blogpost.aspx?blogid=3884>.

²⁵ See Wilson, Hammock, and Arifeen; Kobb, 45; “Small Data: Do People Lie in Surveys?” *BBC News*, 21 September 2014, accessed 18 January 2014, available from: <http://www.bbc.com/news/blogs-magazine-monitor-29206289>.

²⁶ Robert W. Walker and William A. Cook, “You Can't Put a Price Tag on Survey Participants' Enjoyment: The Latest Findings from the ARF's 'Foundations of Quality' Research,” *Journal of Advertising Research*, Vol. 53, No. 3 (2013), 254-257.

²⁷ Wilson, Hammock, and Arifeen, 3.

²⁸ Tania Kaiser, “Researching Social Life in Protracted Exile: Experiences with Sudanese Refugees in Uganda 1996-2008,” in Mazurana, Jacobsen, and Andrews Gale, 118.

²⁹ See Kobb, 44; Paul Fishstein and Andrew Wilder, “Establishing a Policy Research Organization in a Conflict Zone: The Case of the Afghanistan Research and Evaluation Unit,” in Mazurana, Jacobsen, and Andrews Gale, 241;

³⁰ Wood, 300.

become a particularly pressing concern as research norms have shifted toward collecting increasingly identifiable data points, such as mobile phone numbers and the GPS coordinates of homes, from study subjects. Protection of subject data includes sharing only de-identified data and maintaining anonymity and confidentiality agreements with the subjects. Another concern is the “cruel hoax” that even when studies find certain services to be beneficial, there is frequently no plan in place to sustain them.³¹ Lean Research, in contrast, enables subjects to benefit from research in tangible, meaningful ways. In addition, Lean Research subjects ideally have the opportunity to refute findings, something which rarely occurs in studies involving researchers from developed countries and subjects from developing ones.³²

It is unlikely that many researchers today would characterize their work as being “delightful” for subjects. However, reframing research design toward the goals of making research respectful and delightful (or even simply considering it) can result in subjects actually enjoying the research process and feeling that their time and contributions are appropriately valued. This is an important end in its own right, and can generate more accurate information as research subjects feel comfortable, respected, and invested in the credibility of findings.

Lean Research is Relevant

Research is relevant when it has value and is accessible and understandable to key stakeholders, including subjects, practitioners, policy-makers, and other decision-makers. The design and dissemination stages of the research process present particularly valuable opportunities for researchers to enhance the relevance of their studies.

When designing studies, researchers typically focus on how to most effectively gather data of interest to themselves or their organizations (or, as Ravallion points out, data that best fits certain preferred methodologies), rather than data of practical use to subjects or host institutions.³³ Lean Research strives for an increased emphasis on the latter and posits that this can be achieved through a variety of means. ³⁴ Actually *asking* subjects what their priorities are, rather than inferring or making assumptions about them, is critical.³⁵ Collecting data of

³¹ Wilson, Hammock, and Arifeen, 3.

³² Jok Madut Jok, “Power Dynamics and the Politics of Fieldwork under Sudan’s Prolonged Conflicts,” in Mazurana, Jacobsen, and Andrews Gale, 163; Wessells, 94.

³³ Ravallion, 12.

³⁴ Babbie, 341. For an example of incorporating subjects’ interests into research, see Kaiser, 116.

³⁵ See Wilson, 2.

relevance to subjects is useful not only for subjects themselves, but also for practitioners: as one respondent to the *Stanford Social Innovation Review* survey on the role of research in social innovation stated, “The most useful thing would be if researchers actually talked and met with those who we fund (grassroots, community-based civil society groups) and learned about the challenges they face, and asked them what information or knowledge they could use – if more research could serve those needs, that would go a long way toward making research more relevant.”³⁶

Generating research that is not relevant to practitioners can have an effect on the use of the results. According to an article by Peek, et al., “Perceived lack of relevance is cited as the primary reason practitioners do not use research.”³⁷ In the management field, management research often does not have a significant impact on practice. Academic research in journals is “only remotely related to the real world of practicing managers.”³⁸ Thus, most of the research findings are not implemented. Van de Ven, Hambrick, and Huff point out that in the United States, the Academy of Management has also “urged academic scholars to engage in more practice oriented research.”³⁹ Van de Ven also argues that “academic studies are not useful to practitioners and do not get implemented.”⁴⁰ By making research more relevant and including stakeholders from the beginning, the research is more likely to be used.

A concrete example of an organization adapting its practices to make its research more relevant to both subjects and practitioners is Root Capital, the nonprofit social investment fund that encountered the angry mango farmer quoted in the beginning of this paper. Root Capital has expanded its goals and now strives for relevant, actionable research with its client-centric approach to impact evaluation. Root Capital researchers ask clients (enterprises) if they would like to include any additional questions in the evaluation. The data is then collected, analyzed, and shared with the enterprises. By providing a snapshot of business performance, this process offers clients valuable information for business decisions and generating marketing material. It

³⁶ Seelos and Mair.

³⁷ C.J. Peek et al., “The 5 R’s : An Emerging Bold Standard for Conducting Relevant Research in a Changing World,” *Annals of Family Medicine*, Vol. 12, No. 5 (2014), 448.

³⁸ Gerald Susman and Roger Evered, “An Assessment of the Scientific Merits of Action Research,” *Administrative Science Quarterly*, Vol. 23, No. 4 (1978), 582, quoted in Abinash Panda and Rajen Gupta, “Making Academic Research More Relevant: A Few Suggestions,” *IIMB Management Review*, Vol. 26, No. 3 (September 2014), 156.

³⁹ Panda and Gupta, 157.

⁴⁰ *Ibid.*

also creates value for the researchers by improving the quality of the evaluation, motivating participants to participate, and aligning the interests of key stakeholders.⁴¹

At the dissemination stage, researchers can make their work more relevant by conferring with stakeholders about how they would like to receive findings and then ensuring that adequate time and budget have been allocated to distribute findings in both traditional (but perhaps less accessible and understandable) and non-traditional ways. For example, Catherine Brun, a professor at the Norwegian University of Science and Technology who has done extensive field work in Sri Lanka, has been able to share her research beyond “the traditional academic fora” by discussing it with local stakeholders (including, in her case, government officials and militant groups), collaborating with organizations and institutions outside her specific geographic focus area, and developing reading materials for use by local libraries and universities.⁴² “By writing and disseminating our research in different ways in the field area and outside,” Brun writes, “we take responsibility as researchers.”⁴³ Again, the *Stanford Social Innovation* survey provides valuable insight into what forms of dissemination practitioners find most useful:

Academic journals and reports published by consulting companies were perceived by only 16 percent as most relevant, and less than 11 percent perceived research published by international organizations or associations most relevant. One respondent remarked: “Academic journals are difficult to use a teaching/ discussion tool for the front line staff. Case studies, blogs, and short thought pieces with practical examples give me a platform to engage my full staff so they are willing to apply new concepts and try research-based principles.”⁴⁴

By opening their eyes to dissemination options beyond traditional journals or reports, researchers can thus significantly enhance the reach and actionability of their findings.

The Lean Research approach acknowledges that some trade-offs exist between relevance and rigor, as adopting a more participatory research technique may result in less predictable and perhaps less “publishable” research outcomes; however, even the most rigorous study

⁴¹ Root Capital, “Data that Creates Value: A Client-Centric Approach to Impact Evaluation” (draft), 2.

⁴² Catherine Brun, “‘I Love My Soldier’: Developing Responsible and Ethically Sound Research Strategies in a Militarized Society,” in Mazurana, Jacobsen, and Andrews Gale, 145-146.

⁴³ *Ibid.*, 146.

⁴⁴ Seelos and Mair.

ultimately serves no greater purpose if it is not relevant to stakeholders on the ground.⁴⁵ Some take it a step further and argue that relevance and rigor should complement one another by creating academic research that is relevant. In India, Panda and Gupta argue for creating an ecosystem that supports relevant and rigorous research as much of the rigorous management research was not being implemented. “Business schools should collaborate with business organizations for research, review and revamp doctoral research programs, attract and groom academic faculty for conducting relevant research, and collaborate and sponsor a pan-Indian academic journal that puts balanced emphasis on both methodological rigor and practical relevance of the contributions.”⁴⁶

Lean Research is Right-Sized

The final principle guiding Lean Research is that it is right-sized. The starting point for right-sized research is first defining the scope of the research so that it addresses the relevant problem at hand, and then determining whether additional field research is needed at all. To make this determination, the researcher must do his or her “homework” to establish that there is no alternative way to gather the needed data other than by conducting an original study. Knowledge, one researcher points out, “does not always need to be reimaged with new data.”⁴⁷ Focusing specifically on impact evaluations, Innovations for Poverty Action’s Dean Karlan and Mary Kay Gugerty argue that another case where organizations should not attempt to measure impact is when doing so “is simply impossible to do well.”⁴⁸ In other words, if the potential knowledge gains from primary research do not outweigh the costs – in terms of both researchers’ and subjects’ time, money, and energy – it is not worth doing. Moreover, for both monitoring and evaluation studies, actionability is critical: “if nothing is going to change in the way you do what you’re doing, then don’t spend money collecting data just to keep doing the same thing.”⁴⁹

⁴⁵ Fran Baum, Colin MacDougall, and Danielle Smith, “Glossary: Participatory Action Research,” *Journal of Epidemiology and Community Health* No. 60, Vol. 10 (2006), 854; Ravallion, 27; Wessells, 102-103.

⁴⁶ Panda and Gupta.

⁴⁷ Wilson, 5.

⁴⁸ Gugerty and Karlan.

⁴⁹ “The Goldilocks Problem: Not Too Much Data, Not Too Little Data, The Challenge of Getting it Just Right With Dean Karlan,” University of Pennsylvania Annenberg School of Communication, Center for Global Communication Studies, 24 May 2013, accessed 20 January 2014, available from: <http://www.global.asc.upenn.edu/the-goldilocks-problem-not-too-much-data-not-too-little-data-the-challenge-of-getting-it-just-right-with-dean-karlan/>.

The Lean Research approach also emphasizes that right-sized research is only as burdensome and costly as it needs to be, and eliminates all questions, activities, and protocols that are not essential to the research objectives. Likewise, Lean Research is careful to select a sample size that is large enough to be valid, yet not unnecessarily large. Karlan and Gugerty refer to this as “the Goldilocks problem” and insist that when it comes to collecting data on program impact, more is not necessarily better; rather, what counts is developing “right-fit” monitoring and evaluation systems.⁵⁰

Right-sized research may, in addition, have a positive impact on data quality and response rates. Burchell and Marsh point to empirical evidence which shows that increasing the length of a survey can have negative effects on data quality and response rates. They state that, “[t]he evidence from the empirical literature is generally consistent: length beyond around 100 questions or 10 pages of a typical schedule has a detrimental effect on both response rates and response quality.”⁵¹ Cannell and Kahn argue that when the survey is too long, “respondents become less motivated to respond, put forth less cognitive effort and may skip questions altogether, causing survey data quality to suffer.”⁵² Krosnick indicates that respondents may “lose interest and become distracted or impatient as they progress through a survey, putting less and less effort into answering questions.” This can lead to “acquiescent responding, more frequent selection of non-substantive responses such as ‘don’t know’, non-differentiation in rating scales, choosing the first listed response and random responding.”⁵³ Thus, the longer the survey, the more likely these issues are to occur. Similar outcomes have occurred in web-based surveys, where experimental studies by Galesic and Bosnjak and Lugtigheid and Rathod “have shown that, as questionnaires become longer, engagement declines, resulting in classic satisficing behaviors and even survey abandonment.”⁵⁴ In brief, Lean Research posits that by shedding unnecessary bulk, fieldwork in developing countries can hone in on finding answers to targeted research questions in a more efficient and effective way, which may produce better research results.

⁵⁰ Gugerty and Karlan.

⁵¹ Brendan Burchell and Catherine Marsh, “The Effect of Questionnaire Length on Survey Response,” *Quality and Quantity*, Vol. 26 (1992), 1992. The effects of questionnaire on survey response. *Quality and quantity* (26), 236.

⁵² Theo Downes-Le Guin et al., “Myths and Realities of Respondent Engagement in Online Surveys,” *International Journal of Market Research*, Vol. 54, No. 5 (2012), 1.

⁵³ Theo Downes-Le Guin et al, 2.

⁵⁴ Ibid.

Conclusion

The Lean Research approach promotes rigorous, respectful, relevant, and right-sized research that generates maximum value and usefulness to stakeholders and minimum waste and burden, especially as experienced by research subjects. The researchers, practitioners, and donors who developed Lean Research acknowledge that conducting Lean Research is a complex endeavor: it involves making trade-offs between the four principles and shifting the costs, risks, and burdens of the research process from the subject to the researcher and research institution. Nevertheless, this group believes that the benefits of Lean Research to all those involved in the production and consumption of research outweigh these difficulties.

The Lean Research principles have emerged from discussions between researchers, donors, and practitioners over the course of about a year. Fifty of these individuals gathered at MIT on August 1, 2014, to discuss current shortcomings in research design, data collection and analysis, and the dissemination of findings, and how these can be improved. The developers of Lean Research envision a collaborative path forward and invite researchers, donors, and facilitators of research to sign the Lean Research Declaration if they wish to commit to the Lean Research principles and encourage continuous improvement of the standards and practices associated with them. Although embarking upon Lean Research may at times feel like swimming against the stream of current practice, we believe that taking on this challenge is worth it, for it will result in research that is beneficial to subjects, actionable by many stakeholders, and efficient in terms of benefits and costs. The Burkinabe mango farmer and East Timorese teenager deserve better than to be treated as mere sources of data; let us conduct research that fully values their dignity by being rigorous, respectful, relevant, and right-sized.