

APPENDIX A

Compilation of Best Practices Regarding Ten Major Methodological Issues with OPD

Recommendation	Rationale for Recommendation	Cite(s) for Recommendation	Empirical Support for Recommendation	Empirical Support Against Recommendation	Disagreement or Issues with Recommendation
Topic 1: Recruitment and Selection					
<ul style="list-style-type: none"> • Post a “HIT” more than once and be sure to spread those HITs out across different times of the day or even days of the week 	<ul style="list-style-type: none"> • Acquire larger samples quicker • Ensure HITs are completed by participants with different habits • Pilot to make sure survey runs smooth 	<ul style="list-style-type: none"> • Keith, Tay, & Harms (2017) • Paolacci & Chandler (2014) 	<ul style="list-style-type: none"> • Chilton, Horton, Miller, & Azenkot (2010) 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • Releasing multiple batches increases chance of cross-talk on forums
<ul style="list-style-type: none"> • Only select workers who have completed relatively few (e.g., 0-100) studies 	<ul style="list-style-type: none"> • Reduce risk of non-naïveté 	<ul style="list-style-type: none"> • Cheung et al. (2017) • Keith et al. (2017) 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • Peer et al (2014) 	<ul style="list-style-type: none"> • Workers who have completed large number of studies might be preferred (Cheung et al., 2017)
<ul style="list-style-type: none"> • When reputation information is available, restrict samples to “high reputation” workers (e.g., > 95% approval) and possibly higher number of completed studies 	<ul style="list-style-type: none"> • “Low reputation” workers produce worse data • Beyond approval rate, the number of studies completed matters 	<ul style="list-style-type: none"> • Goodman & Paolacci (2017) • Keith et al. (2017) • Peer et al. (2014) 	<ul style="list-style-type: none"> • Peer et al. (2014) 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • May increase presence of “professional survey takers,” limiting generalizability (Keith et al., 2017)
<ul style="list-style-type: none"> • Make use of built-in and user-designed qualification features 	<ul style="list-style-type: none"> • Reduce respondent deception • Approximate target sample representativeness • Prevent participation more than once 	<ul style="list-style-type: none"> • Buhrmester et al. (2011) • Chandler et al. (2014) • Cheung et al. (2017) • Goodman & Paolacci (2017) • Keith et al. (2017) • McGonagle (2015) • Paolacci & Chandler (2014) • Stritch et al. (2017) • Woo et al. (2015) 	<ul style="list-style-type: none"> • Chandler et al. (2014) 	<ul style="list-style-type: none"> • Sprouse (2011) 	<ul style="list-style-type: none"> • Use of qualifications may slow down recruitment
<ul style="list-style-type: none"> • Avoid qualification requirements not crucial to your research question 	<ul style="list-style-type: none"> • Reduce potential range restriction 	<ul style="list-style-type: none"> • Cheung et al. (2017) 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A
<ul style="list-style-type: none"> • Include eligibility requirements clearly in your recruitment advertisement 	<ul style="list-style-type: none"> • Allow participants to self-select based on desired criteria • Avoid lost time, money, & irritation 	<ul style="list-style-type: none"> • Lovett et al. (2018) • Stritch et al. (2017) 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • Chandler & Shapiro (2016) • Peer et al. (2014) • Sharpe Wessling, Huber, & Netzer (2017) 	<ul style="list-style-type: none"> • Participants may lie about characteristics
<ul style="list-style-type: none"> • Design presurveys that do not give away participation requirements 	<ul style="list-style-type: none"> • Reduce demand characteristics 	<ul style="list-style-type: none"> • Chandler et al. (2014) • Chandler & Shapiro (2016) 	<ul style="list-style-type: none"> • Chandler & Shapiro (2016) • Peer et al. (2014) 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A

	<ul style="list-style-type: none"> • Prevent researchers from identifying subgroups of interests after results are known • Avoid participants who misrepresent themselves 	<ul style="list-style-type: none"> • Cheung et al. (2017) • Goodman & Paolacci (2017) • Goritz (2007) • Keith et al. (2017) • McGonagle (2015) • Shapiro, Chandler, & Mueller (2013) • Smith et al. (2015) • Wessling et al. (2017) 			
• Describe research tasks generically at the outset	• Minimize risk of self-selection	<ul style="list-style-type: none"> • Goodman & Paolacci (2017) • McGonagle (2015) 	• N/A	• N/A	• Could result in attrition if unaware of tasks
• Initially provide some details of the experiment and approximately what participants will be doing	• Minimize attrition	<ul style="list-style-type: none"> • Horton, Rand, & Zeckhauser (2011) 	• N/A	• N/A	• Too much information revealed could lead to self-selection bias
Topic 2: Study Planning and Design					
• Be aware of the existence of multiple OPPs and make use of those OPPs	<ul style="list-style-type: none"> • Test theories across different samples • Find more naïve participants • Better response rates • Better data quality • More diverse participants • Avoid one dominant OPP shaping research questions and directions • Recruit qualitatively different participants 	<ul style="list-style-type: none"> • Crone & Williams (2017) • Gleibs (2017) • Goodman & Paolacci (2017) • Miller et al. (2017) • Peterson & Merunka (2014) 	• Peer et al. (2017)	• N/A	• N/A
• Create unique completion codes that participants must submit to get paid	<ul style="list-style-type: none"> • Link anonymous participants to responses • Reject poor data 	<ul style="list-style-type: none"> • Buhrmester et al. (2011) • Keith et al. (2017) • Paolacci et al. (2010) 	• N/A	• N/A	• Unless using third-party platform, can be time consuming and impractical to verify secret codes (Litman, Robinson, & Abberbock 2017)
• Be aware of and make use of third-party apps (e.g., TurkPrime) to help manage the research process	• Better manage the data collection process	<ul style="list-style-type: none"> • Gleibs (2017) • Horton et al. (2011) • Keith et al. (2017) • Mason & Suri (2012) • Stritch et al. (2017) 	• Litman et al. (2017)	• N/A	• N/A
• Increase your sample size to offset anticipated decreases in power	<ul style="list-style-type: none"> • Deal with attenuated effects sizes due to non-naïveté • Low quality data can harm results 	<ul style="list-style-type: none"> • Chandler et al. (2015) • Rouse (2015) • Sprouse (2011) 	<ul style="list-style-type: none"> • Chandler et al. (2015) • Sprouse (2011) 	• N/A	• N/A
• Avoid common experimental paradigms and psychological measures	• Avoid problems with participant non-naïveté (e.g., practice effects)	<ul style="list-style-type: none"> • Chandler et al. (2014) • Goodman & Paolacci (2017) • Hauser & Schwarz (2016) 	• Chandler et al. (2014)	• N/A	• N/A

		<ul style="list-style-type: none"> • Keith et al. (2017) • Paolacci & Chandler (2014) • Paolacci et al. (2010) • Woo et al. (2015) 			
• Ensure study design consistency when combining samples	• Reduce chance that effect size differences are due to different design features	<ul style="list-style-type: none"> • Cheung et al. (2017) • Mason & Suri (2012) 	• N/A	• N/A	• N/A
• Temporally separate IVs and DVs when possible and/or appropriate	<ul style="list-style-type: none"> • Reduce common method variance • Reduce demand characteristics • Conduct test-retest reliability 	<ul style="list-style-type: none"> • Paolacci & Chandler (2014) • Stritch et al. (2017) 	• N/A	• N/A	• Requires tracking IDs which could potentially be used to access personally identifiable information
• Use source-separation for surveys when possible and/or appropriate	• Reduce common method variance	• Paolacci & Chandler (2014)	• N/A	• N/A	• Could violate terms of some OPPs to ask for personal info (Miller et al., 2017)
• Avoid OPD for cross-cultural research in non-English speaking countries or when unnecessary	<ul style="list-style-type: none"> • Avoid non-representative sample • Improve data quality 	<ul style="list-style-type: none"> • Buhrmester et al. (2011) • Chandler & Shapiro (2016) • Cheung et al. (2017) • Keith et al. (2017) 	<ul style="list-style-type: none"> • Feitosa et al. (2015) • Litman et al. (2015) 	• N/A	• Studies have successfully used OPPs based in other countries to obtain acceptable quality data (e.g., Ng & Feldman 2012; Ng & Feldman, 2015)
• Make use of OPD for cross cultural research	• Growing number of countries from which to draw a sample	<ul style="list-style-type: none"> • Goodman & Paolacci (2017) • Paolacci et al. (2010) • Woo et al. (2015) 	• N/A	<ul style="list-style-type: none"> • Feitosa et al. (2015) • Litman et al. (2015) 	<ul style="list-style-type: none"> • Increase risk of sample bias in countries where English is not first language • Poor data quality
Topic 3: Measures and Controls					
• Ask participants if they have participated in similar experimental manipulations before	• Account for non-naïveté	<ul style="list-style-type: none"> • Paolacci et al. (2010) • Woo et al. (2015) 	• N/A	• N/A	• Participants may not remember (or may falsify) reports of prior participation
• Track participant IDs to account for non-naïveté; asking participants if they have participated in similar experimental manipulations before is not enough	• Participants may not remember or may be dishonest when reporting on whether they have engaged in similar experiments	<ul style="list-style-type: none"> • Chandler et al. (2014) • Chandler et al. (2015) • Cheung et al. (2017) • Goodman & Paolacci (2017) • Keith et al. (2017) 	• Chandler et al. (2015)	• N/A	• Some evidence that worker IDs can be linked to personally identifying information
• Measure the completion rate and bounce rate when possible	• Account for potential impact of self-selection	• Keith et al. (2017)	• N/A	• N/A	• N/A
• Ask workers how they found your study	• Detect potential selection bias	• Chandler et al. (2014)	• N/A	• N/A	• N/A
• Ask participants why they participated in your study	• Understand if and how motivations affect substantive findings	<ul style="list-style-type: none"> • Cheung et al. (2017) • McGonagle (2015) 	• Fleischer, Mead, & Huang (2015)	• N/A	• N/A
• Measure perceived equity for participation	• Determine possible inequity	• Gleibs (2017)	• N/A	• N/A	• N/A

• Measure sources of “noise” in the participant’s physical environment	• Identify and control for systematic differences in environments	• Cheung et al. (2017) • Lovett et al. (2018)	• Chandler et al. (2014) • Clifford & Jerit (2014) • Lovett et al. (2018)	• N/A	• N/A
• Control for the number studies previously completed by the participant	• Evaluate non-naïveté • Use as covariate in data analysis	• Goodman & Paolacci (2017)	• N/A	• N/A	• N/A
Topic 4: Informing					
• Post informed consent	• Decrease social desirability	• Behrend et al. (2011) • Mason & Suri (2012)	• Behrend et al. (2011)	• N/A	• N/A
• Provide debriefing when appropriate	• Allow participants to understand purpose • Provide way to contact researcher	• Mason & Suri (2012) • Stritch et al. (2017)	• N/A	• N/A	• Debriefing may cause “loyal following” or increase non-naïveté (Chandler et al., 2014)
• Specify any physical environment requirements ahead of time	• Reduce chance that extraneous factors influence findings	• Cheung et al. (2017)	• N/A	• N/A	• N/A
• Ensure you provide good directions and that your survey formatting is free of error	• Improve data quality and effort put forth by participants	• Alonso & Mizzaro (2012) • Lovett et al. (2018)	• N/A	• N/A	• N/A
Topic 5: Data Quality					
• Provide warnings that inattentiveness will not result in compensation	• Reduce risk of inattentiveness • Foster withdrawal-without-prejudice • Decrease attrition	• Cheung et al. (2017) • Gleibs (2017) • Keith et al. (2017) • Stritch et al. (2017)	• Huang, Liu, & Bowling (2015b) • Huang, Curran, Keeney, Poposki, & DeShon (2012)	• N/A	• Could trigger reactance from participants
• Pay inattentive workers but consider blocking them from future participation	• Balance norms of OP community (i.e., reject bad work) with IRB requirements to avoid penalizing subjects who withdraw • Maintain a positive reputation among participants	• Harms & DeSimone (2015) • Keith et al. (2017) • Paolacci et al. (2010)	• N/A	• N/A	• Moral obligation to avoid paying for bad work (Fleischer et al., 2015). • Might violate IRB’s “without penalty” portion of right to withdraw (Fleischer et al., 2015)
• Offer a second chance to participants who fail attention checks	• Provides justification for refusing HIT • Minimizes perceptions of unfairness • Protects Requestor’s reputation in OP community	• Cheung et al. (2017)	• Oppenheimer, Mevvis, & Davidenko (2009)	• N/A	• There could be group differences between participants who initially failed checks and those that did not (Oppenheimer et al., 2009)
• Award bonuses for high-quality work and let participants know ahead of time that bonuses are available	• Encourages high quality responses	• Keith et al. (2017) • Woo et al. (2015)	• Barger, Behrend, Sharek, & Sinar, 2011) • Brawley & Pury (2016) • Chandler, Paolacci & Mueller (2014)	• N/A	• Avoid incentivizing practices that you do not want to become norms (Hauser & Schwarz, 2016)
• Set upper and lower rates on survey completion times and reject work exceeding those limits	• Ensures responses that are too quick or too slow are automatically rejected	• Mason & Suri (2012) • Miller et al. (2017) • Stritch et al. (2017)	• Huang et al. (2015b) • Huang et al. (2012) • Meade & Craig (2012)	• Greszki, Meyer, & Schoen (2014) • Lovett et al. (2018)	• Time limits may be a bad indicator of quality

<ul style="list-style-type: none"> Do not put a time limit on how fast or slow a survey can be completed by participants 	<ul style="list-style-type: none"> Fast people can do accurate work as well as slow people 	<ul style="list-style-type: none"> Lovett et al. (2018) Matthijssse, De Leeuw, & Hox (2015) 	<ul style="list-style-type: none"> Brawley & Pury (2016) Greszki et al. (2014) Lovett et al. (2018) 	<ul style="list-style-type: none"> Aust et al. (2013) Huang et al. (2015a) Huang et al. (2012) Meade & Craig (2012) 	<ul style="list-style-type: none"> Participants who are unreasonably slow or fast may go undetected
<ul style="list-style-type: none"> Create unique attention checks and/or use instructional manipulation checks 	<ul style="list-style-type: none"> Unique attention checks are less likely to be spotted by inattentive participants 	<ul style="list-style-type: none"> Fleischer et al. (2015) Goodman & Paolacci (2017) Rouse (2015) 	<ul style="list-style-type: none"> Hauser & Schwarz (2016) 	<ul style="list-style-type: none"> Peer et al. (2014) 	<ul style="list-style-type: none"> When samples are composed of high reputation workers, novel checks may be ineffective
<ul style="list-style-type: none"> Use conventional attention checks to identify and potentially remove responses provided by careless respondents 	<ul style="list-style-type: none"> Identify workers who miss obvious questions Reduce systematic bias which could inflate relationships Reduce the chance that measurement error will shrink correlations 	<ul style="list-style-type: none"> Cheung et al. (2017) Fleischer et al. (2015) Keith et al. (2017) Landers & Behrend (2015) Mason & Suri (2012) McGonagle (2015) Paolacci et al. (2010) Ran, Liu, Marchiondo, & Huang (2015) Shapiro et al. (2013) Smith et al. (2015) Sprouse (2011) Stritch et al. (2017) Woo et al. (2015) 	<ul style="list-style-type: none"> Fleischer et al. (2015) McGonagle (2015) Meade & Craig (2012) Huang et al. (2015a) Huang et al. (2012) Huang et al. (2015b) Woods (2006) 	<ul style="list-style-type: none"> Aust et al. (2013) Downs et al. (2012) Goodman et al. (2012) Peer et al. (2014) Rouse (2015) 	<ul style="list-style-type: none"> Checks may be ineffective Could cause reactance on the part of participants
<ul style="list-style-type: none"> Ask participants whether they were attentive and give them option to have data removed 	<ul style="list-style-type: none"> These types of checks have been shown to be effective where traditional attention checks have not 	<ul style="list-style-type: none"> Rouse (2015) 	<ul style="list-style-type: none"> Aust et al. (2013) Meade & Craig (2012) Rouse (2015) 	<ul style="list-style-type: none"> Oppenheimer et al. (2009) 	<ul style="list-style-type: none"> Could signal non-serious responses are expected, increasing bad data (Aust et al., 2013)
<ul style="list-style-type: none"> Either prescreen for attentiveness or simply avoid using ex-post screening methods to identify careless respondents 	<ul style="list-style-type: none"> Reduce concerns about researchers abusing screening to obtain results Ensures participants understand task Attention checks may not improve data quality 	<ul style="list-style-type: none"> Chandler et al. (2014) Keith et al. (2017) Mason & Suri (2012) Paolacci & Chandler (2014) Paolacci et al. (2010) Ran et al. (2015) 	<ul style="list-style-type: none"> Simmons, Nelson, & Simonsohn (2011) 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Reduced ability to compare participants on differences in main study variables
Topic 6: Comparisons					
<ul style="list-style-type: none"> Track participant IDs when available 	<ul style="list-style-type: none"> Prescreen participants who have already participated in same or similar study Collect longitudinal data Check for nonindependence Build a panel of participants for future 	<ul style="list-style-type: none"> Chandler et al. (2015) Chandler & Shapiro (2016) Cheung et al. (2017) Goodman & Paolacci (2017) Mason & Suri (2012) Paolacci et al. (2010) Stritch et al. (2017) 	<ul style="list-style-type: none"> Chandler et al. (2015) 	<ul style="list-style-type: none"> Lease et al. (2013) 	<ul style="list-style-type: none"> Building a panel of participants could lead to panel conditioning (Chandler & Shapir, 2016; Goritz, 2007) Could potentially reveal personally identifying information (Goodman & Paolacci, 2017; Lease et al., 2013)

<ul style="list-style-type: none"> • Compare reliability estimates of your OPD sample to relevant comparison samples 	<ul style="list-style-type: none"> • Determine if there is statistical difference in scores to boost confidence in sample representativeness 	<ul style="list-style-type: none"> • Rouse (2015) 	<ul style="list-style-type: none"> • Rouse (2015) 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A
<ul style="list-style-type: none"> • Capture IP addresses and reject responses from the same IP address 	<ul style="list-style-type: none"> • Screen for multiple responses from same individual 	<ul style="list-style-type: none"> • Cheung et al (2017) • Mason & Suri (2012) • Smith et al. (2015) • Stritch et al. (2017) 	<ul style="list-style-type: none"> • Horton et al. (2011) • Jilke, Van Ryzin, & Van de Walle (2016) 	<ul style="list-style-type: none"> • Aust et al. (2013) • Berinsky, Huber, & Lenz (2012) • Shapiro et al. (2013) 	<ul style="list-style-type: none"> • It is possible to have more than one worker from the same IP address (Gosling, Vazire, Srivastava, & John, 2004; Smith et al., 2015)
Topic 7: Managing Relationships					
<ul style="list-style-type: none"> • Thank workers and embed tasks with “meaning”—explain meaning of tasks they will complete 	<ul style="list-style-type: none"> • Increase data quality • Pay alone isn’t enough—participants want “fun” studies 	<ul style="list-style-type: none"> • Fleischer et al. (2015) • Matthijssee et al. (2015) • Paolacci & Chandler (2014) 	<ul style="list-style-type: none"> • Brawley & Pury (2016) • Chandler & Kapelner (2013) • Chandler et al. (2014) • Lovett et al. (2018) 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • Questionable value of intrinsically motivating research
<ul style="list-style-type: none"> • Monitor discussion boards for chatter about your study 	<ul style="list-style-type: none"> • Identify instances where the purpose of your study might be revealed (i.e., deception or manipulation) • Boost confidence in stable unit treatment value assumption 	<ul style="list-style-type: none"> • Chandler et al. (2014) • Cheung et al. (2017) • Goodman & Paolacci (2017) • Horton et al. (2011) • Keith et al. (2017) 	<ul style="list-style-type: none"> • Horton et al. (2011) • Rogstadius, Kostakos, Kittur, Smus, Laredo, & Vukovic (2011) • Schmidt (2015) • Wessling et al. (2017) 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • The low base rate of problematic chatter could render this recommendation an inefficient use of time
<ul style="list-style-type: none"> • Avoid experiments involving deception and consider guaranteeing you will not use deception in your studies 	<ul style="list-style-type: none"> • Foster trust between researchers and participants in general • There is a greater chance that participants have seen similar deception 	<ul style="list-style-type: none"> • Horton et al. (2011) • Mason & Suri (2012) • Schmidt (2015) 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • Deception may not be problematic if participants are debriefed
<ul style="list-style-type: none"> • Review formal OPP-specific guidelines and act ethically by, for example, clearly identifying yourself to participants, providing reasonable time estimates, paying as soon as possible, and maintaining lines of communication 	<ul style="list-style-type: none"> • Foster good relations between researchers and participants • Ensure workers are able to make informed decisions about completing task • Avoid potential attrition • Avoid reputation damage to researcher • Enhance data quality 	<ul style="list-style-type: none"> • Gleibs (2017) • Goodman & Paolacci (2017) • Keith et al. (2017) • Lovett et al. (2018) • Mason & Suri (2012) • Paolacci et al. (2010) • Stritch et al. (2017) 	<ul style="list-style-type: none"> • Brawley & Pury (2016) • Lovett et al. (2018) 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A
<ul style="list-style-type: none"> • Read forums to get a sense of OP participants and introduce yourself to the OP community via web forums if possible 	<ul style="list-style-type: none"> • Provide researchers with a more realistic picture of the participants • Open the door to communication 	<ul style="list-style-type: none"> • Goodman & Paolacci (2017) • Lovett et al. (2018) • Mason & Suri (2012) • Schmidt (2015) • Wessling et al. (2017) 	<ul style="list-style-type: none"> • Lovett et al. (2018) 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A
<ul style="list-style-type: none"> • Provide justifiable and concrete reasons to a participant if rejecting that participant’s work 	<ul style="list-style-type: none"> • Prevent misunderstandings 	<ul style="list-style-type: none"> • Cheung et al. (2017) • Gleibs (2017) • Harms & DeSimone (2015) • Paolacci et al. (2010) 	<ul style="list-style-type: none"> • Brawley & Pury (2016) 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A

Topic 8: Compensation					
• Pay a “fair” wage	<ul style="list-style-type: none"> • Ethical principle of justice • Goodwill • Faster recruiting • Participants are increasingly reliant on OPD for a sustainable source of income 	<ul style="list-style-type: none"> • Behrend et al. (2011) • Crone & Williams (2017) • Gleibs (2017) • Goodman & Paolacci (2017) • Lovett et al. (2018) • Rouse (2015) 	• Crump et al. (2013)	• N/A	<ul style="list-style-type: none"> • Field must decide on what constitutes “fair” pay • Does “fair pay” result in best results?
• Pay an appealing—but not overly appealing—wage	<ul style="list-style-type: none"> • Reduce likelihood of participants lying about characteristics • Recruit faster 	<ul style="list-style-type: none"> • Goodman & Paolacci (2017) • Smith et al. (2015) 	<ul style="list-style-type: none"> • Brawley & Pury (2016) • Crump et al. (2013) • Rogstadius et al. (2011) 	• N/A	• Trouble defining “overly appealing” wages
• Pay a low wage—or at least avoid enticing monetary incentives	<ul style="list-style-type: none"> • OPPs are a “bottom shelf” market • Participants usually don’t rely on wages. • Participants are not forced to work • Low wages don’t impact results • Reduce chances that workers lie about qualifications 	<ul style="list-style-type: none"> • Crone & Williams (2017) • Mason & Suri (2012) • Paolacci et al. (2010) • Smith et al. (2015) 	<ul style="list-style-type: none"> • Buhrmester et al. (2011) • Chandler et al. (2014) • Mason & Watts (2009) 	<ul style="list-style-type: none"> • Aker, El-Haj, Albakour, & Kruschwitz (2012) • Lovett et al. (2018) 	<ul style="list-style-type: none"> • Ethical implications—just because low wages do not impact results does not make it ethical to pay low wages • Some evidence indicates low pay does hurt results
• Pay at least median reservation wage	• Presumed fairness	<ul style="list-style-type: none"> • Behrend et al. (2011) • Paolacci et al. (2010) 	• Horton & Chilton (2010)	• N/A	• This is a target that changes with time and perhaps across OPPs
• Pay U.S. Federal minimum wage	• Lower pay than physical lab because less involved, but fair	• Goodman & Paolacci (2017)	• N/A	• N/A	• Relatively high pay may encourage dishonesty
• Pay participants whatever going market rate is (e.g., \$2/hour)	• Pay rates do not affect the quality of data	• Stritch et al. (2017)	• N/A	• N/A	• The “market rate” may not be considered “fair”
• Increase compensation when follow-up timeframes increase or more effort is required on the part of the participant	• Improve retention rate	<ul style="list-style-type: none"> • Behrend et al. (2011) • Goodman & Paolacci (2017) • Keith et al. (2017) 	• N/A	• N/A	• N/A
• Use a “hook” strategy where difficult upfront tasks that pay more must be completed before easy tasks are offered (total payment forfeited if entire study is not completed)	• Improve retention rate	<ul style="list-style-type: none"> • Goodman & Paolacci (2017) • Horton et al. (2011) 	• N/A	• N/A	• Participants may feel mislead or trapped in a study when sunk costs are involved
Topic 9: Reporting					
• Be transparent with regard to materials used in your study and the methods used to recruit participants	• Avoid potential for arbitrary design choices to influence sample composition	<ul style="list-style-type: none"> • Gleibs (2017) • Paolacci & Chandler (2014) 	• N/A	• N/A	• N/A
• Report the amount of compensation participants received and the average study completion time	<ul style="list-style-type: none"> • Transparency • Future meta-analyses of payment on sample characteristics 	<ul style="list-style-type: none"> • Keith et al. (2017) • Paolacci et al. (2010) 	• Keith et al. (2017)	• N/A	• N/A

<ul style="list-style-type: none"> • If using attention checks or similar indicators to screen for quality, report results both before and after screening techniques were applied 	<ul style="list-style-type: none"> • Increased transparency and understand impact of data screening on research 	<ul style="list-style-type: none"> • Cheung et al. (2017) • Goodman & Paolacci (2017) • Keith et al. (2017) • Shapiro et al. (2013) 	<ul style="list-style-type: none"> • Chandler et al. (2014) • Cheung et al. (2017) • Keith et al. (2017) • Ran et al. (2015) 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A
<ul style="list-style-type: none"> • Collect and report the following: demographics; compensation; the participant's country of residence; and how non-naïveté was handled 	<ul style="list-style-type: none"> • Avoid relying on prior research for sample representativeness of OPP as a whole • Increase transparency 	<ul style="list-style-type: none"> • Chandler et al. (2014) • Goodman & Paolacci (2017) • Keith et al. (2017) • Paolacci & Chandler (2014) 	<ul style="list-style-type: none"> • Keith et al. (2017) 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A
Topic 10: Institutional Responsibilities					
<ul style="list-style-type: none"> • Journals should offer clear instructions to authors on reporting of survey response rates and how to address nonresponse 	<ul style="list-style-type: none"> • Continue examining evidence of sampling error 	<ul style="list-style-type: none"> • Fisher & Sandell (2015) 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A
<ul style="list-style-type: none"> • Reviewers and editors should create standards for “low quality” data screening and reporting 	<ul style="list-style-type: none"> • Researchers can adopt a screening method—a priori—based on recommendations 	<ul style="list-style-type: none"> • Ran et al. (2015) 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • There might not be a “one size fits all” standard for screening • Screening may be unnecessary
<ul style="list-style-type: none"> • Journals should require authors to report pay and the average length of the study 	<ul style="list-style-type: none"> • Better understanding of pay per hour 	<ul style="list-style-type: none"> • Gleibs (2017) 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • Unclear if minimum wage is problematic
<ul style="list-style-type: none"> • Universities/departments should provide funding to pay participants at least minimum wage 	<ul style="list-style-type: none"> • Avoid exploiting workers 	<ul style="list-style-type: none"> • Gleibs (2017) 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • Unclear if minimum wage is “too attractive” and could be problematic
<ul style="list-style-type: none"> • Internal Review Boards should consider fair pay 	<ul style="list-style-type: none"> • Protect participants and adhere to ethical standards 	<ul style="list-style-type: none"> • Gleibs (2017) 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • Many IRB members feel that any monetary payment is undue influence (Klitzman, 2013; Largent, Grady, Miller, & Wertheimer 2012)

