PAGE
policy analysis on growth and employment

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EXPERIMENTAL PROPOSAL GUIDE

A short guide designed to assist PEP applicants in completing an experimental research project proposal

Quebec, Canada

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SECTION A – Project Description

1. Motivation (300 words max.)

Shortly describe the economic context that motivates your experiment.
Examples:

"The possibility to overcome social dilemmas through cooperation plays an important role in many everyday situations such as the provision of public goods, the use of common-pool resources and the sustainment of social norms. Cooperation varies substantially among individuals and across contexts (e.g. Cárdenas and Carpenter 2008, Martinsson et al. 2009, Gächter et al. 2010), yet relatively little is known about the formation of preferences for cooperation. Understanding the foundations of cooperative preferences, how it develops with age, and differs across cultures and genders, is therefore an important topic. Experiments on children in different countries are one way to increase this understanding." Cárdenas et al. (2012).

"Research in economics and psychology points to a potential relationship between trauma and the economic risk preferences central to decision-making. Early life financial experiences such as the Great Depression are linked to more conservative later life investing behaviour (Malmendier and Nagel, Forthcoming), potentially suggesting an increase in risk aversion. […] Though trauma cannot be experimentally administered, it can be experimentally recalled."
Callen et al. (2014)

2. Main research questions (200 words max.)

Identify the specific objective of your research and explain the method that you will use to answer your question. You might also explain (very briefly) why you think it is an interesting question.

Here are two script examples of a research question (Creswell's, 2009):

"Does _____ (name the theory) explain the relationship between _____ (independent variable) and _____ (dependent variable), controlling for the effects of _____ (control variable)?"

"There is no significant difference between _____ (the control and experimental groups on the independent variable) on _____ (dependent variable)."

Examples:

"The general question that guided our research was about the effect of the context on rule crafting trust and cooperation in common pool resources (CPR) dilemmas. We wanted to explore the hypothesis that the ability to craft rules in small-scale fisheries is context dependent. To answer this question we designed a set of tools to observe individual decision making patterns, to go one step further in connecting individual behaviour in field experiments with the participants' SES; to observe processes of rule crafting for fishery management, and to generate an open space for discussion, possible negotiation regarding problems, and rules for resource management. Our intention is to explain the "how and why" of human behaviour and not only its patterns, in line with Vernon Smith's (2010) call." Castillo et all (2011).

"We investigate the relationship between violence and economic risk preferences in Afghanistan combining […] a two-part experimental procedure identifying risk preferences, violations of Expected Utility, and specific preferences for certainty. […] The preference for certainty, which we term a Certainty Premium, is exacerbated by the combination of violent exposure and controlled fearful recollections. The results have implications for risk-taking and are potentially actionable for policymakers and marketers." Callen et al. (2014)

3. Priority theme (200 words max.)

Enumerate the PAGE-research themes that your proposal investigates. Briefly explain how they are related to your research. Download HERE the complete description.

4. Policy relevance (200 words max.)

Describe specific policy implications related to your research. Explain why policymakers or other types of stakeholders may be interested in your potential findings. When possible, include a list of names, institutions, and existing or planned policies related to your research.

Examples:

"Beyond its implications for social science, our study [field experiment] informs an important set of public policy issues, from the pricing of health products in developing countries in particular (Kremer and Miguel, 2007) to non-profit pricing strategy more generally. Chlorine and related point-of-use water purification

systems hold promise as tools for addressing the lack of clean water facing over one billion people (USAID, 2006; Thevos et al, 2002-2003; Kremer et al, 2006). As with many health inputs, these tools rely on household behaviour to produce desirable health outcomes (Grossman, 1972), implying that models of product use are likely to play an important role in the design and implementation of policies relating to water purification." Ashraf et al. (2010)

"*In the financial year 2011/2012, the Government of Uganda made available the Youth Venture Capital Fund of UGX 25 Billion to support growth of viable and sustainable Small and Medium-scale Enterprises (SMEs) owned by young entrepreneurs aged between 18 and 35 years in the private sector. […]*
There is a clear demand for this research [contextual field experiment]*, as many existing interventions were not necessarily based on existing evidence. […] Arising from team discussions with the various stakeholders, key policy makers have shown the willingness to receive and utilise the research findings through their strategic roles.*" Sekandi et al. (2013)

5. Experiment description (1.500 words max.)

Succinctly describe the essence of your experiment and its underlying rationality. Cite any articles or studies that implement similar experiments in other context.

Examples:

"*Subjects make a series of decisions between Option A, a safe binary gamble, and Option B, a risky binary gamble with more variable outcomes. As subjects proceed, the probability of the high outcome in each gamble moves from zero to one, such that the difference in expected value, EV(A) − EV(B), moves from positive to negative. Where a subject switches from preferring Option A to Option B carries interval information on their risk aversion. Resulting choices are often used to infer a parametric measure of risk aversion.*" Callen et al. (2014)

"In the Voluntary Contribution Mechanism (VCM) players can contribute the tokens which they receive at the beginning of the game towards the provisions of a public good. Tokens kept have a private value while tokens invested in the public or group account generate a "public good" return by transferring income to the contributor and the rest of the players. For this to be a public goods problem or a collective action dilemma the returns from the tokens kept must induce a greater value than investing the tokens in the group account and therefore inducing Nash equilibrium where nobody should contribute to the group account. However, if all players contribute to the group account the group achieves the socially optimum outcome." Cárdenas et al. (2011b)

6. Related literature (1000 words max.)

Reference at least 3 experiments that have been implemented before to answer in a similar question. What were the results and what do you hope to achieve in addition to their work.

"[…] Experimentally measured time preference parameters vary broadly. Frederick et al. (2002) review the literature and annual discount factors (rates) ranging from one (zero percent) to virtually zero (infinity percent), possibly suggesting instability in time preferences. The authors propose that at least part of the variance findings is due to differing experimental methodology and differing sample selection. They also note that no longitudinal studies have been conducted to permit any conclusions about the temporal stability of time preferences" (Frederick et al., 2002, p. 391). To our knowledge, the lack of longitudinal time preference studies persists to the present. The current study begins to fill this gap. In consecutive years, we elicit the time preferences of around 1,400 adults from the same subject pool using identical incentivized experimental methods. The experimental methodology was designed to elicit individual discount factors and present-biased preferences (see, e.g., Laibson, 1997; O'Donoghue and Rabin, 1999). This represents the largest study of time preferences with actual payments conducted to date, making it an ideal data set for testing time preference stability." Meier and Sprenger (2010).

SECTION B – Experiment Implementation

7. Targeted population (200 words max.)

Indicate the target population that you want to study.

"The economic experiment was designed to be implemented in the field with participants who manage natural resources in their daily lives. The pencil and paper based fishery experiments were held in six villages in Thailand and Colombia, three in each country. One of the villages in each country had fisheries as a dominant activity; forestry was most important in the next and finally irrigation in the remaining one. In Thailand experiments were performed in the Petchaburi watershed, which is located in the West of Thailand, in three separate locations. One of the locations is in the coastal area, and the other two are inland. The Colombian experiments were conducted in three different rural sites. The fishery community is represented by a village on Barú Island, (rural area of Cartagena city, in the Caribbean coast)." Castillo et al. (2011)

8. Recruitment protocol (1.000 words max.)

Describe how are you planning to recruit participants for your experiment.

"*UNICEF, through its youth partnerships program, will provide the platform required to enrol study participants. The participants will be selected from a database of youth who are currently enrolled as volunteers for the U-report social mobilization initiative. The U-report platform is currently managed by UNICEF and is available to both Government and Non-Government stakeholders to engage Youth in discussions and opinion polls on topical issues concerning their communities. The platform is managed through an open-source gateway which makes it possible that youth receive and respond to polls at NO cost.*" Ssekandy et al. (2013).

"*In the afternoon before the first day of the experiment, local native field assistants walked from house to house to invite people to participate in a game at a local school house in the afternoon of the next day. The field assistants briefly explained the purpose of the game, and that the prerequisites for participating were that the person (1) was an active hunter, (2) had previously walked the trail in question [experiment related], and (3) was not occupied with other activities the day after the experiment session in the school.*" Anders et al. (2008)

9. Sample Size (500 words max.)

State how many participants you plan to recruit, how many experimental sessions you plan to conduct and propose a location for the experiment.

"*We conducted the microfinance games as a framed field experiment which we played with owners and employees of micro-enterprises in Lima, Peru. We set up an experimental lab in an isolated room in a large consumer market, Polvos Azules, located in the center of the city. We played eleven different game treatments an average of 29 times each over the course of seven months (from July of 2004 to February of 2005). Our sample includes data from 321 games played over the course of 81 days. 493 participants played an average of eleven games each. Table 2 describes the allocation of players across games. 238 participants attended only one game session, while 23 participants attended more than ten sessions.*" Gine et al. (2010)

10. Experimental protocol (1.500 words max.)

Outline the main steps of your experiment as clearly and simply as possible. Think of your reader as a researcher partner that will implement your experiment in another country.

"*In our design participants are assigned to groups of five people who play for twenty rounds. At the beginning of each round, each player receives an endowment of 25 tokens that can be contributed to the public fund or kept in a private account. The total contributions to the public fund by the five players is doubled and immediately distributed in equal shares to all players of the group at the end of each round. The only information given to the players in each round is the total contributions by the group and the amount each receives from the public fund, which is then added by each player to her tokens not contributed. Clearly, a group is better off by investing all 125 tokens, which are doubled and thus yield 250 tokens to be distributed to the five players. However, any of the players will have an incentive to free ride on the contributions by the others, keep her endowed tokens and still receive 1/5 of the tokens produced by the public fund. Since this is the Nash (and dominant) strategy, the equilibrium of the game at any round would be that each player keeps her 25 tokens for a social efficiency of 50% (125 tokens of the 250 possible)*."Cardenas et al. (2011b)

"*In the normal ultimatum game, a randomly assigned proposer was asked to choose how much of a total amount of D 10 to offer to a randomly assigned responder, who can accept or reject the offer. In fact, the survey questions talk about CentERpoints rather than euros, where D 1 is 100 CentERpoints. The reason is that the participants in this ongoing panel are used to get their compensations and rewards for participating in terms of CentERpoints (CP hereafter). Proposers could choose one out of eight possible allocations: A [in the set] {(1000, 0), (850, 150), (700, 300), (550, 450), (450, 550),…, (0, 1000)}, where the first and second amounts denote the payoffs for the proposer and responder in CP, respectively. We collected decisions of responders using the strategy method: responders were asked to decide whether they would accept or reject each of the eight possible offers before they were informed about the actual choice of the proposer, implying that we observe several decisions for each responder. This differs from Blount (1995) and other studies who ask responders to report their minimum acceptable offer. The latter assumes threshold behaviour, i.e., every amount exceeding some (respondent specific) threshold will be accepted. Our approach allows to explore the incidence of plateau behaviour, i.e., the observation that a substantial proportion of responders reject offers which are either relatively disadvantageous or advantageous to them. All players were informed that only the response that corresponded to the allocation chosen by the proposer would determine the payoff of both players. The accepted allocations were paid out to both players. Both players received nothing if the responder rejected the relevant*

allocation. After responders had made their decisions, we elicited their beliefs concerning proposer behaviour with a series of subjective probability questions.7 These belief questions were not incentivized. Responders were asked to state their subjective probabilities that each of the eight possible allocations would be offered, where the eight responses had to add up to 100." Bellemare et al. (2011)

11. Timeline (300 words max.)

Outline the chronological order of the main steps required to conduct your experiment and analyse the results. This should help the evaluator visualize time lapses between steps, durations, and the simultaneity or overlap of spans and events.

Illustrative example:

	Year 1 (Months)											
Activity	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Ethical clearance and launch of study	x	x										
Design credit counselling module	x	x	x									
Random selection of the sample			x									
Recruitment				x								
Credit counselling clinics /Baseline					x	x	x					
Follow-up								x	x	x		
Data capture & analysis									x	x		
Report writing										x	x	
National Policy workshop												x
Dissemination of the Report												x

Ssekandy et al. (2013)

12. Budget outline (300 words max.)

Design a budget allocation that details the expected costs of the major research activities in your project. Your budget should specify the fraction of the grant to be used for payment of participants during the experiments.

Illustrative example (on next page):

Budget description	No.	Expected cost in USD
Payments to experiment participants	300	xxxxx
Transportation and experimental material for the sessions	60	xxxxx
Administrative requirements (room location, etc.)	10	xxxxxx
Data entry: small survey and experimental questionnaires	360	xxxx

SECTION B – Research team

1. Team members

Start with the team leader. Note that PEP favours teams composed of at least 50% female researchers contributing substantively to the project. PEP also seeks gender balance in team leaders and thus positively encourages female-led research teams.

Name	Age	Sex	Education or experience	Field of expertise

2. Expected capacity building (200 words max.)

Describe the research capacities that team members, and potentially their affiliated institutions, are expected to build through their participation in this project. Indicate which specific tasks each team member would carry out. Note that PEP favours the inclusion of young researchers (under 30) lead by a senior researcher.

3. List of past, current or pending projects in related areas involving team members (200 words max.)

Name of funding institution	Project title	Team members involved

4. Ethical approval (200 words max.)

All experiments require future approval of a Research Ethics Board. State if there is a local or institutional ethics review board in your country that can approve your project. Include a link to its web page or detail the requirements to obtain ethical approval.

5. Ethical, social, gender or environmental issues or risks in relation to your experiment (300 words max.)

Indicate if there are any ethical concerns or security issues regarding your project. Explain how are you planning to address them in your experimental protocol.

Example:

"*Keeping with Afghan custom, men and women were interviewed by field staff of their own gender.*
Critical to implementing surveys and experiments with non-standard subject pools, particularly in zones of conflict, are cultural differences, enumerator training, and subject comprehension. One of our largest worries in design was the potential sensitivity of questions involving risk in a predominantly Muslim country. For this reason, we opted only to administer the questions in 12 less conservative provinces of Badakhshan, Balkh, Bamyan, Daikondi, Faryab, Herat, Juzjan, Kabul, Kapisa, Panjshir, Parwan, and Samangan. Additionally, we had our interviewers read a fixed informed consent script, asking individuals if they were willing to answer a few questions about uncertain outcomes" Callen et al. (2014)

13. References

Document all your sources. The point of referencing sources in academic papers is not just to avoid been accused of plagiarism, but to demonstrate that you know the state of the art in your field of research. It is also a courtesy to your readers and evaluators because it helps them to easily consult the sources that you used.

Proposal Guide References

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