Survey Research Methods for the Time Banks Survey (2014) Round I

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Course:

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Abstract.

The work we present here attempts to describe a theoretical Survey Research Project related with Time Banks in Spain. Throughout this research, we will analyze the strategy methods proposed, from questionnaire design and sampling to data collection, describing and identifying the strengths and weaknesses points identified in each stage. In addition, we presented a (very) brief theoretical background and previous surveys examples and investigation, which are the fundamental basis that make this project suitable to develop.

By multipurpose survey, we will examine hypothetical causation associate in level of participation and implication in Time Bank Social Network, level of implication (in term of community experience and personal identification) and healthy rewards.

Thus, we will be delighted to present out the project of Time Banks Survey Round I (TBS Round I)

Abbreviations:
TB (Time Banks)
TBS (Time Banks Survey)
LSP (Longitudinal Survey Panel)
PS (Panel Survey)

Description of the purpose. Research Questions

The main aim of the researches' question, is to examine which level of participation in time banking produces health improvising, the sense of belonging to a collectivity of trust and reciprocity (De Silva et al., 2005), contributes to health. Indeed, driving forces, outcomes and community experience are required to ask on the questionnaire as well as to identify socio-demographic membership characteristics. How much implicated are the participants with the community? Do they experiment to improve with health?

Briefly locate surveys for examples & Data

The benefits of being on this community are reported to outweigh the costs: confidence, feelings of being needed and useful, offering members the opportunity of revaluing their work is wide enough to consider it. (Kimmel, 2011). Those who reported such benefits from participating in the Time Bank were highly attached to the organization, above and beyond the specifics of their transactions, which supports the idea that participants are joining and creating a new community through the Time Bank (Kimmel, 2011). Moreover, Collum (2007) found the most successful outcome of Time banking: it gave members the satisfaction of helping others. The majority of the literature suggested, as Marks (2005) in his research that, Time banking helps and supports young people in transitions. He has argued that it presents opportunities to build engagement, and for young people to experience co-production of the communities and society in which they live.

Another well-known study based on Time Banks suggests that enrolling with Time Banking can improve people's quality of life through expanding social networks and increasing social interaction (Seyfang, 2001).

In terms of strategy to collected data, most of the studies make use of focus group in selection of local areas of the country, specifically Time Bank community, thus retaining feedback from indicative community managers and participants who are enabled to grasp the findings(Collum, E.:2007). In addition, there is a unique study in Spain developed by researchers of Rovira i Virgili University (Madrid). They used online survey method to get rewarded opinion for Time Banks. (Eleni Papaoikonomou, 2012). Elena outlines the time banks profile arguing that people joining in these communities were not affected by financial crisis but the influence of social and political crisis let patent the disappointment of these social groups.

Thus, all this findings described above and the lack of Time Banks interested to research, make an opportunity to carry out by probabilistic survey method as perfect strategy design.

A (very) briefly theoretical background.

The Time Banks is a natural development of LETS network with the same social idea. Doing a short history, the Time Banks started in United State in 1980 with 'Dollar Time' experience created by Edgar Cahn with the idea of time-dollar as unit value. This initiatives work as local and community organization acting like the central bank of the neighborhood. This new community of Trust, creates new life opportunities, helping unemployed people, converting time in money or credit for future services.

Briefly, United Kingdom, Italy, Portugal, Holland and France also are joined in this organizational structure of share knowledge for the community. Since is well-known that Spain is one of the most damaged countries from the Financial Crisis, a considered part of Spanish population have seen reduction in their possibilities for growth in life, lack of employment, poverty has increased and low income. Moreover, people should discover a new way to survive and Time Banks has opened an alternative to enhance the situation of this group.

The appropriateness of the survey method to the question being researched.

Although this survey proposal is focused in one specific topic to explore, we should mention the ambition of being the first Survey accurate and reliable, in term of data collection set on TB framework around Spain, in order to provide this resource for future works. Thus, a basic descriptive design is also often a good first step towards finding direction for a more complex design later on.

These are the highlighted points that justify our effort to defend our proposal much more than necessary and lead to appropriate investigation: (1) the exponential growth accentuates the need to enhance and improve the knowledge's, internal as well as external level, about T B. In 2013, fourthly TBs around Spain have been created improving the efficiency of such social network. (2) There is a lack of evidence from previous studies carried out by survey methods. (3) Non probability survey methods used in previous studies as collected data methodology make this project a great challenge.

Moreover, all points described above emphasize to the ingenious idea of working on TBS Project. In addition, as qualitative and quantitative mixed-methods approach, we have summarized some extra positive points as well as some risk points that we should take in account and fix before starting with the project.

Positive:

1. The possibility (in future) to keep working on TBS Project as a next level. We are referring, for instance, to generating a Longitudinal Survey Panel to explore and analyze change over time. Furthermore, a Panel Survey Study, enable to solve the problem of loss participants surveying in LSP, since it used the same sample of people every time. . However, to focus in LSP approach is the high probability to change theses organizational system and members suffering bias in the sample of study. Additionally, PS tends to be expensive, take a lot of time, and suffer from high attrition rates. Thus, we will explain on detail the cross sectional survey (TBS Round I) as first stage, not forgetting the potential very beneficial of following up to this project.

2. External Knowledge: 'Big Data' collected by our team will be offered to Time Banks Network as crucial and feasible to be analyzed, to develop and improve the social network and relationship among Banks.

3. Internal Knowledge: TBS project will provide a set of questions about users' opinions within Time Banks. It will be appropriate to strengthen ties between members.

Negative:

1. The current lack of information perhaps will make to presume that is not easy to make TBS come true. In order to achieve a completeness and quality sample frame, we should get contact with. (all) the Time Banks and ask for their member list number and composition. The only information that we have is not official and unreliable but it could let us to get an idea approximately about the TB composition system in Spain.

2. Related with point 1, we must say that if there are banks with 5 or fewer members will be dropped to our sample size in favor of the others.

3. The interviewer team should bear in mind that we need to travel around Spain. Beside that economical and physical efforts related to the difficulty of this project, we should fix a randomizing method (Epidat. Software), which reach a harmonious balance between economic resources and quality design necessary to start to work.

4. Moreover, we should study the best way to arrange interview meeting. Once we get contact with the TB, we will evaluate them whether going to the TB to interview them (which totally depends on the TB Seminaries Schedule and risk of losing participants to interview those who are not interested in attending it) or we can go over to their houses, (these are expected information from TB managers.)

Nonetheless, we should mention that in each risk point which that we honestly have described above; there are enough reason of change to opportunities.

Sampling for the Time Bank Survey Round I:

The objective of the TBS strategy is the design and implementation of workable and equivalent sampling plans in all Time Banks. TBS attempts the following key principals:

- Samples must be representative of all persons within the association in each TB, regardless of their nationality, citizenship or language
- Time Banks are selected by strict random probability methods at every stage then full membership of each bank will be interviewed.
- Sampling frames of individuals.
- All TB must aim for a minimum 'effective achieved sample size' according to our random sample size.
- Substitution of non-responding individuals (whether 'refusals', 'non-contacts' or 'ineligibles') is not permitted at any stage.

From the statistical point of view, full coverage of the population, non-response reduction, are prerequisites for the comparability of unbiased or at least minimum biased estimates.

Target Population

'People who are currently participating in Time Banks Association in Spain'.

TBS contains members who are enrolled within time banks association regardless of nationality and citizenship or language.

This definition applies to all TB users and so everyone with the defined characteristics must have a non-zero chance of being selected.

The following differences in TBS can be expected:

a) TB with reliable lists of participants those are available for social research.

b) TB without reliable list and not updated member's information.

c) Variety in number of members per Time Banks.

Remarks

We exclude TB which works just by online transaction procedures and without any interrelationship among the rest of the members. As well as, other social network communities like non-monetary currency association (social money who participate inside this social change for social management but is not inside our project).The questionnaire has to be translated into Spanish.

Sampling Frame

The members list inside the Time Banks systems in Spain.

It is provided by TB association (*sinempleo* website) updated in May 2013, by the BdT Association. This list contains 421 Time Banks Association around Spain. Time Banks registration is the unique elementary framing that we can work. Regarding number of TBanks association per community (17 administrative-divisions as autonomous communities), it varies from 5 TB to 69 TB (see Appendix 2.Table 4) being the average from the whole Spain of 25 TB.. In addition, we still have no strict information about the number of members within TB. Nevertheless, we can estimate approximately, knowing that the members average of each TB is around 30 participants. Thus, our theoretical simple size would be 421 Time banks with 12.630 participants.

Only probability samples provide a theoretical basis which allows inferring from the sample to the whole target population. As design based inference is one important goal in the project, probability samples are required.

Sampling Design

The sampling method has been designed to accomplish the goals and objectives of the project. Because visiting all the TB would be impractical, we have decided to generate a two stage cluster sample method in order to decrease the expenses of Interviewer Team.

Simple two-stage cluster sample:

List all the clusters in the population. First, select the clusters, by simple random sampling (SRS). The units (TB) in the selected clusters of the first-stage are then sampled and passed in the second-stage, by simple random sampling. (Epidat statistical software based)

First stage (Elements): Select Randomized 5 of 17 community's autonomies
Second stage (units): Per each autonomy 50% of total banks.

Special Features of the Design

The sample design ensures equal probability of individual selection for all the individuals in the same stratum.

Remarks

(See appendix 2: Epidat Outcomes to see more details of Sampling Design)

Two pre-test samples will be selected in the region of Aragon, Zaragoza (Spain) with the same sampling design. In order to raise the specification of 10 completed interviews, two Time Banks in each city will be selected.

High response rates (TBS: target minimum response rate: 70%),

If unit non-response is associated with central variables under study, it can introduce severe bias in the survey estimation. Therefore, it is essential importance to plan and implement a sufficient number of contact attempts as well as appropriate field work strategies to persuade participants for our survey. The fixed goal of 70% response rate in the TBS is particularly challenging for some TB. However, all efforts should be made to avoid non-response because it increases the danger of biased samples, which should clearly be avoided.

Firstly, we should find a sponsorship for the project. Central government surveys generating higher response rates than academic surveys, and academic surveys generating higher response rates than commercial surveys (Groves and Couper 1998).

We have mentioned that as much more evidence is certain strength to believe in the usability and beneficial of our TBS project. Least strong points to deal with us are: (1) Spain

as whole community society, need a real change in order to overtake this social and ethic crisis, thus, this example as an experience would be an opportunity to believe and desire that change is happening in Spain. (2) Join in our survey; we give voice to our participants to share their experiences, values, thoughts and reflections about their lives, and desires. (3) Finally, TB Community would be grateful with this initiative, as it seems a great opportunity to enhance and to start the growth of internal management of all TB structure in National level. (Extra motivation points of the respondent and decrease the non-response rate).

We will sent by email an advance letter to inform them that we are working in a TBS project and that they are considered as unit in our interview planning.(Dillman 1978; Luppes 1998). In addition, we will use callback procedures and telephone reminders, by that we will try to increase the response rate and be persuasive. Therefore pre pay as incentive to our participants with 1 hour credit in their TBanks will increase overall response rate.(Singer 1983)

Furthermore, follow-up non-respondents is the most effective way to increase the response rate. It can also help to understand where respondents and non-respondents may be different in the characteristics being measured.

Finally, we are going to prepare some TBS Communication Strategy via *facebook* and *Time banks association* website in order to raise the awareness to the importance of their contributions for the viability of the study.

Methodological quality

In designing a cluster survey trade-offs and contextual factors must be considered to balance feasibility and methodological quality. As there are a few alternatives to cluster samples our goal was to improve methodological quality in a practical and feasible field approach. We believe that this has adapted two-stage cluster sampling method deal with these goals.

STRENGHT AND WEEK POINTS

The sampling method presented here was designed to reduce the potential for sampling bias by non-probability survey methods presented in previous researches. Using sampling clusters enables simple random selection of TB, minimizing the possibility of systematic selection of certain regions and, further, removes the possibility of conscious or unconscious interviewer bias by selecting households a priori. Nevertheless, the sampling method has potential sources

of bias, mostly stemming from the population size from clusters. The TB registration is not based on official census data, but rather uses estimated population figures derived from the most recent national census. It is difficult to estimate how the use of outdated population figures affects sampling and the potential for bias.

☐ Cluster sampling technique make, moderate or serious, increase the variance of the sample related with the effect of design.

☐ It's cheap, quick and easy. Instead of sampling an entire country, we can allocate the limited resources to the few randomly selected clusters or areas when using cluster samples.

☐ We can also increase the sample size with this technique. We can then select more subjects since they are more accessible.

☐ From all the different types of probability sampling, this technique is the least representative of the population. There is a chance that we can have an overrepresented or underrepresented cluster which can affect and change the results of the study.

☐ This is also a probability sampling technique with a possibility of high sampling error.

Deciding on a method of collecting data.

Face-to-face and structure interview with a set questionnaire will be carried out as collecting data strategy including close-ended and open-ended questions. Despite that it is evidence that sending the questionnaires to our sample by email or post is cheaper, we have considered suitable to visit personally each TB to make the first contact point with them. Our vision of the project goes beyond to a merely survey project to collected data, we view this opportunity to create closer ties with them and work in the future. It is also important to note that, these techniques deal with the issue of absence of visual communication by email or telephone survey techniques which generate more social distance between interviewee and interviewer (Groves, 2004). On the other hand,we could lock and understand in a sustainable way the result achieved in the interview as well as the feelings and opinions of the respondent with open end question (Busha and Harter 1980).

The questionnaire that we have designed is adapted and adjusted for capture conclusions about the TB Communities among the sample size. Indeed, we should mention the rigorous and precision elaboration of the questions, marking out the aspect that we want to analyze. Therefore, we will use a clear language and adapt to the age and social culture of the population

in order to go directly to the essential of the question and to avoid the ambiguous of some statements.

Thus, we emphasize that this technique will be appropriate according to the following points: (following along M Angeles Cea D Ancona literature):

1) High level of response rate in interview techniques.

2) Cooperation between the interviewer team and our participants, creating a trusting work environment.

3) Quality data and answer consecution.

4) Interviewer could help to clarify questions with visual interpretation.

5) Check the consistency of the answers.

6) Possibility of interviewee motivation by the interviewer

7) Overtake understanding questions

However, face-to-face interview should deal with some less positive points:

1) Arrange the interview on the right time and day: likely of overrepresentation depending the time.(Diaz de Raza, 2000).

2) High economic and temporal cost. In general with the shifting, management and supervisor of the sample team.

3) Less control of each interviewer during the interview round.

4) Social desirability bias (Crowne, D. P., & Marlowe, D., 1960) likely that would happen, the respondent might feel the pressure towards their community because of some questions, even more with people like us acting like interviewers.

Due to all of these reasons, it is necessary to seek out sincerity in the answers, take care of the interpersonal relation emphasizing in the importance of doing interview techniques as a place to collect detailed and updated information.

Ethical Issues

Included in the Belmont Principle of Justice is the concept that research should make the community beneficial and not exploit it. Study participants would be taking on risk with little hope of receiving benefits at the conclusion of the study or in the future. Risks and benefits need determination. The communitarian approach would expand on the ethics articulated in the Belmont Report and distract focus from solely the individual to include the community within which he or she lives or is a member. The rights of the individual are still protected, but a

communitarian approach expands ethical considerations to the community level and informs new ethical questions. (Callahan, D., 2003)

Questionnaire design

The questionnaire contains almost all closed questions and all concepts and dimensions in the survey which are ultimately represented in the integrated dataset in an identical format. The last question will be open. All the questionnaires will be translated in Spanish. This version attached Appendix 1 is a brief sample of core questionnaire. We have neglected socio-demography, motivations and outcomes to be in the association questions. The interest objective is to conceptualize and attempts to measure healthy changes, community experience and personal identification.'

In developing the core questionnaire, attempts have been made to draw on validated questions from other studies. This was proved to be more difficult than we anticipated and it has been necessary to adapt existing items or develop new ones. A range of techniques was used to develop and test the core items, and the same methods are used each round for the rotating modules. They include:

- Quality questionnaire designed to avoid errors with theoretical concept of keys questions. .
- Taking care about the process from the conceptualization to operationalization of theoretical concepts (Sartori: 1984).
- To solve memory effect problems of participants in personal identification section, we made use of reference items that strongly disagree or agree (Krosnick and Alwin,1987).
- Because some respondents had been members for more than one year, it is possible that some have experienced health changes across the period independent of their involvement with these communities; we therefore posed a specific question about the improvement of health since they have been members of the community (Campbell & Stanley, 1963).

Strengths
- Appropriate questions of the questionnaire.(Sudman and Bradburn,1987)
- Easy to understand.(Payne,1980)

- Simple vocabulary to avoid abstract conceptualization.

- Write up personal and direct questions.

- There are not sensitive subjects.

- We avoid ambiguous words in our questions focusing them in direct answer.

- Last question would be perfect to cover all aspects and opinions more in details.

Weaknesses

- Measure error by order of questions.

- There are too many concepts to measure in a few set of questions (although this is not the core questionnaire).

- In the last open question, it might be difficult to recode and will depend on the interviewers' interpretation.

- Open questions might be difficult and hard to answer.

- The biggest disadvantage of this questionnaire is the non-possibility to go deeply with the interpretation and reflexion of our participant. The many factor intrinsic implicated in this experience should be discovered with deep interviews more than questionnaires.(Biemer and Lyberg, 2003)

APPENDIX 1.

QUESTIONNARIE

INTERVIEWER ENTER START DATE: /   /   (dd/mm/yy)

INTERVIEWER ENTER START TIME: (Use 24 hour clock)

NUMBER OF TIME BANK:

Introduction

Welcome to TBS Round I! Your willingness to participate this survey is much appreciated and will help the Time Bank. We need your feedback to learn more about ourselves.

Please understand that your responses will be strictly confidential.

We respect your privacy and would never disclose any individual's information obtained from this survey.

Are you ready?

1. ABOUT YOU

1.1 Gender?   *M [1]; F [2]*

1.2 Which year did you born? _____

2. ABOUT COMMUNITY EXPERIENCE.

2.1. I will now read out a list of the activities you might join during your stay here.

	Never	Less than once a month	Once a month	Several times a month	Once a week	Several times a week	Every day	(Don't know)
How often do you meet in formal volunteering through an organization	*00*	*01*	*02*	*03*	*04*	*05*	*06*	*88*
How often do you chat with neighbors?	*00*	*01*	*02*	*03*	*04*	*05*	*06*	*88*
How often do you and your neighbors help each other out by lending things like tools, giving someone a ride, or watching each other's house when you are away?	*00*	*01*	*02*	*03*	*04*	*05*	*06*	*88*
How often do you discuss political issues with your family, friends, neighbors, or acquaintances?	*00*	*01*	*02*	*03*	*04*	*05*	*06*	*88*

3. ABOUT PERSONAL IDENTIFICATION.

3.1. We would like you to consider your memberships in those particular groups or categories, and respond to the following statements on the basis of how you feel about those groups and your memberships in them. There is no right or wrong answers to any of these statements; we are interested in your honest.

3.2. Using this card, generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people? Please tell me on a score of 0 to 10, where 0 means you can't be too careful and 10 means that most people can be trusted.

You can't be too careful										**Most people can be trusted**	**(Don't Know)**
00	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**88**

	Strongly Disagree	Disagree	Disagree Somewhat	Neutral	Agree Somewhat	Agree	Strongly Agree	*Don't Know)*
1. my group memberships have very little to do with how I feel about myself.	01	02	03	04	05	06	07	88
2. The social groups I belong to are an important reflection of who I am.	01	02	03	04	05	06	07	88
3. The social groups I belong to are unimportant to my sense of what kind of a person I am.	01	02	03	04	05	06	07	88
4. In general, belonging to social groups is an important part of myself image.	01	02	03	04	05	06	07	88

4. ABOUT YOUR HEATLHY

4.1. How is your health(physical and mental) in general? Would you say it is READ OUT
very good,   *01*
good,   *02*
fair,   *03*
bad   *04*
very bad   *05*
(Don't know)   *88*

4.2. Do you have experimented any healthy chance since you are on this community?

Yes. 01
No.   02

4.2.1. If yes, Could you describe how is the change of your health?

5. Looking back on the experience, are there any particularly positive or negative aspects of your stay here you would like to highlight?

Thank you for your participation in this important survey! We appreciate your time and contribution to sustaining the Time Bank. Your Time will be add you credit!!

APPENDIX 2: EPIDAT OUTCOMES

Reparto de la muestra: Fracción fija para todos los conglomerados
Porcentaje de muestra a seleccionar en cada conglomerado: 50.00%
Seleccionar conglomerados usando: Probabilidades proporcionales al tamaño

Column1	Poblation	Sample
Size	421	93
Number of Clusters	17	5

Table 1. Cluster Selected

Clusters	Size	Sample
1	45	22
3	45	22
8	13	6
11	18	9
13	69	34
Total:	190	93

Table 2. Probabilities of selection and ponderation

Clusters	Probabilities	Ponderations
1	26.1283	3.8273
3	26.1283	3.8273
8	7.1259	14.0333
11	10.6888	9.3556
13	40.38	2.4765

Table 3. Number of subject selected

Cluster 1

2	3	8	10	11	12	15
16	17	19	20	21	22	23
25	28	29	34	37	42	44
45						

Cluster 3

1	2	3	6	8	11	12
13	15	17	20	23	25	27
29	33	36	37	39	41	42
45						

Cluster 8

4	5	6	7	8	9

Cluster 11

2	4	9	10	12	13	14
15	18					

Cluster 13

2	4	5	7	9	11	14
15	16	17	24	28	30	31
32	35	36	37	39	40	42
45	47	49	53	54	55	59
60	61	62	63	64	67	

Table 4.

CLUSTER	(Autonomies)	N (BANKS)
1	Andalucia	45
2	Aragon	20
3	Asturias	45
4	Baleares	23
5	C. Valenciana	16
6	Canarias	9

7	Cantabria	18
8	Casilla La Mancha	13
9	Castilla y Leon	22
10	Catalunya	45
11	Euskadi	18
12	Extremadura	17
13	Galicia	69
14	La Rioja	9
15	Madrid	37
16	Murcia	5
17	Navarra	10
	total	**421**

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