**Data Quality in the Application of Tailored Calendar Methods in**

**Hard-to-Reach Population: Results and Lessons**

**Introduction**

Collecting extensive retrospective data such as life histories in the field of social sciences has been fraught with recall errors compromising the quality or even the validity of the data collected ( Glasner & Van der Vaart, 2009). Data collection of life histories gets even more challenging when it has to be done with hard-to-reach populations such as households who are victims of involuntary displacement and resettlement. These people have very low level of income, education and literacy that live in complex societal situations and have low trust in authorities (Colson, 1991).

Calendar instruments have been found to be a good substitute for a longitudinal study and an effective way to collect retrospective data from life histories ( Freedman et al., 1988; Belli, 1998; Glasner, & Van der Vaart, 2009). The calendar provides respondents with a graphical time frame in which life history information can be represented. The method enables them to visually relate events to each other, thereby deriving timing and content cues from the autobiographical context. For the researcher, the method makes it easier to discover incompleteness and inconsistencies in retrospective reports. Unlike the conventional interview, calendar interviewing maximizes the quality of recall by using what is available in the structure of autobiographical memory (Belli, 1998). When compared with conventional questionnaires, the calendar method yields greater recall accuracy as regards the number of reported events, dates and characteristics of events (Belli et al., 2007; Van der Vaart, 2004; Van der Vaart, and Glasner, 2007; Yoshihama et al., 2005)

The application of the calendar method in this particular study is very appropriate to its goal to trace the formation of the households “social capital” from a year before the resettlement until 2011. Bourdieu and Wacquant (1992, p. 119) defined social capital as the “sum of resources, actual or virtual, that accrue to an individual or a group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition”, a definition also applied by Lin (2001). Coleman (1994, p. 302) gives the following description of the concept: “social capital is defined by its function. It is not a single entity, but a variety of different entities having two characteristics in common: they all consist of some aspect of social structure, and they facilitate certain actions of individuals who are within the structure”. Putnam (1995) saw social capital as features of social organization such as networks, norms, trust that facilitate coordination and cooperation towards mutual benefit. Resources within the ambit of social capital are social resources that are derived from social connections and come in the form of tangible goods such as car, money, house and intangible ones like endorsements, education, reputation, or security (Lin, 2001).

The conceptualization of social capital measurement for this particular context is based on the definitions and arguments set forth by Bordieu (1992), Coleman (1994), Putnam (1995), Lin (2001), and Woolcock and Narayan (2000). These proxies for gauging the level of social capital are divided between structural indicators and cognitive indicators (Stone, 2001) are presented below.

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| Structural Indicators | Cognitive Indicators |
| 1. Size of network: number of ties, known neighbours, friends, relatives, etc. 2. Quality of and content of the ties, whether they are ‘bonds’ , ‘bridges’, and ‘linkages’ 3. Social and civic participation | 1. Level of trust 2. Norms of reciprocity 3. Culture of cooperation and support |

This paper reports our experience with designing, pretesting and fielding the calendar tool to obtain different forms of histories from the respondents relevant to the formation of their social capital. These histories pertain to neighbourhood, households, as well as on the sociability of the heads of households in an urban resettlement site. More importantly, this study will illustrate how obtaining historical information on the social capital of economically and educationally disadvantaged population can benefit from the application of the calendar tool by putting at the forefront data quality issues. The following questions will be investigated:

What is the quality of retrospective data collected with a calendar method from a hard-to-reach population?

In order to answer this question the following sub-questions will be addressed.

What indications of data quality in terms of:

1. recall accuracy regarding dating of events
2. decay with time and heapings in time in the longitudinal pattern of reports
3. completeness of reports, including “don't know” answers
4. the help of “third party assistance” in the report of transitions
5. respondent and the interviewer evaluations of the calendar method.

Topics of the data studied include ‘dates of availability of public services, visits to public places, community activities, organization memberships, number of friends and acquaintances, and number of individuals for support.

The outcomes are put in a context by using ethnographic interviews and other additional data that may shed a light on the interpretations of the findings.

**Methodological Design**

The household survey was undertaken from April to June 2011 in Kasiglahan Village 1 (KV1) in the Philippines. Kasiglahan Village 1 is a government-managed resettlement community situated in Rizal Province, municipality of Rodriguez. Kasiglahan Village 1 has a total land area of 85.70 hectares with 9,915 housing structures at 32 square metres each. The resettlement community has been built for households that have been evicted due to development projects, natural and man-made disasters. It has been welcoming households from all over Metro Manila since 1999. The survey tool has three parts: the household composition sheet; the calendar instrument; and the evaluation sheet for the respondent and the interviewer. However for this paper only the calendar instrument and the evaluation sheet are tackled.

Sampling

The 150 household-head respondents were chosen through proportional random sampling with replacement from a sampling frame of 6,144 households. The population is composed of two types of house owners – the ‘original house and lot owners’ who are also known as program beneficiaries of the socialized housing program of the government and the ‘second-hand house and lot owners’ who are not the intended beneficiaries but bought the house and lot of the original owners. Since the target respondents of the study are the original house and lot owners and we had to contend with a master list of the beneficiaries that is not updated, it was imperative to utilize simple random sampling with replacement. Replacement was used in cases when the target respondent who appears on the project master list already sold his or her house and no longer occupies the structure. Replacements were made known after a long and tedious verification process on the field.

Virtually all the respondents were female (68 percent) and 32 percent male (see Table 1). More than half of the respondents were within the age bracket 30 to 59 years old, with 20 as the youngest respondent and 85 as the oldest. Only nine percent of the respondents finished college while 24 percent finished high school and 23 percent did not finish high school. The respondents’ average household size is 5.58 and the average yearly household income is Php 88,103.00 (2,065.72 USD). Twenty-two respondents resettled in the community in 1999, 31 in 2000, nine in 2001, 21 in 2002, 32 in 2003, 22 in 2004, eight in 2005, and five in 2006.

The KV1 Calendar Instrument

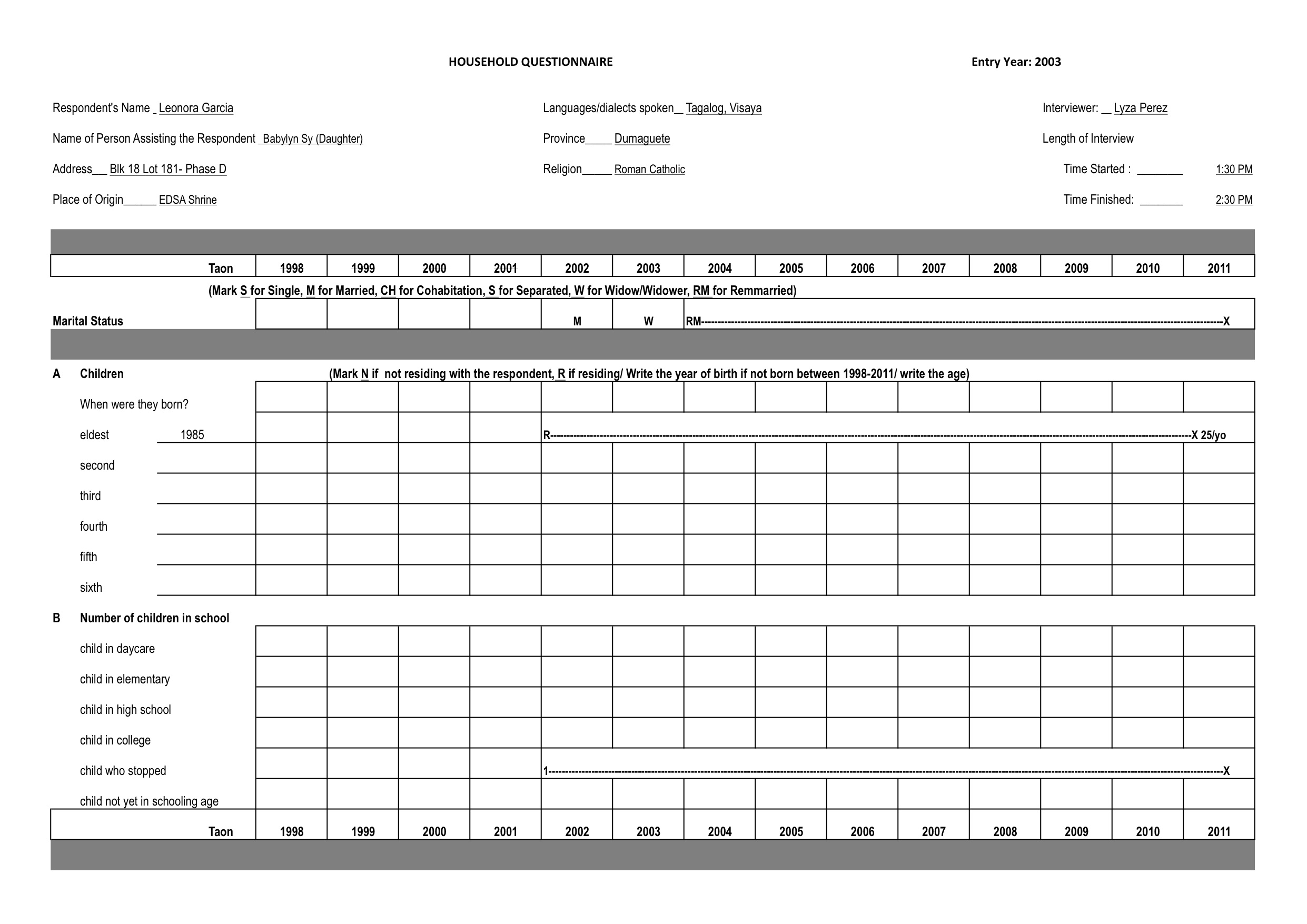
The paper and pencil calendar instrument in this study served as a visual aid as well as a data entry tool for both the interviewer and the respondent. Questions in the instrument is a modification of the social capital measurement tool developed by Krishna and Shrader (2000). The calendar collected information on the following six major life domains of the respondent:

1. Respondent’s marital history
2. Children’s information
3. Household-related information
4. Physical features of the community
5. Respondent’s social engagement
6. Respondent’s perception on the community

Under these major life domains are sub-domains that are presented in Annex 1. The calendar instrument has two kinds of reference periods- the ‘14- year timeline’ and the ‘before resettlement and after resettlement’ periods. The ‘14- year timeline’ section asks the history of the respondent on particular areas (e.g. marital status, making acquaintances and friends, participation in social activities, etc.) from the year before the resettlement until the time of the survey. The respondents have different years of entry in the community, thus, their reference period likewise varies. On the other hand, the ‘before and after’ section requires answer from the household head on the period before the resettlement and the period after the resettlement without particularly focusing on specific years. The ‘14-year timeline’ calendar is organized by years from 1998 until 2011. Each year is already written on the tool. The interviewer only had to cross out the years that do not apply to the respondent. The 14-year timeline was printed on an A3-size paper to allow easy navigation and inputting of multiple answers or codes. While the ‘before and after’ period was printed on an A4-size paper.

There are three general types of entries for the above domains. Some domains like the respondent’s information and social activity sections - require the entry of words, numbers, codes, This concerns for example information on names and numbers of friends, etc. Other domains that focus on durations like employment history and visitation periods to public places require the respondent to drag a line from left to right on the particular horizontal grid from the beginning to end years. Also some domains require the combination of dragging a line and entry of code.

A sample filled-out instrument (first page) is shown in Figure 1.

Figure 1. A Filled-Out Calendar Instrument

Features of the KV-1 Calendar Instrument

The calendar instrument has several features that are also shared by similar instruments and unique features as well.

First, the order of the domains in the instrument is arranged in such a way that they serve as retrieval cues in the process of the interview. As such, the first thematic domains elicit information that have been time tagged and can easily be retrieved with quite high accuracy such as the marital status history and birthdates of the children. Then these thematic domains spin off into much more detailed areas such as number of kids in school in particular years, household composition, household employment, et cetera. In addition, during the course of recollection of information, the interviewer would use the “year before resettlement” and the “year they resettled” as landmarks. These years (as landmarks) varied according to the year the respondent transferred to the community

Second, the visual nature of the survey tool enables the interviewer and the respondent to do real-time checking for gaps, overlaps, and other inconsistencies with the data such as gaps in the timeline for employment/unemployment, household income, attendance of children to school, among others. The interviewer can likewise probe deeper or ask for clarifications on some striking answers or disparities like in the case of a sudden drop or increase in the number of friends/acquaintances made in a particular public place or social activity. So unlike the standard survey questionnaire, this instrument is flexible in a way that it allowed the respondent to choose the order of answering the different domains, while interviewers can go back and forth on the different sections or themes on the questionnaire.

Third, a customised training was conducted with the interviewers. The interviewers are experienced enumerators in resettlement community. However, they were used to do standardized interviews that needed only a little probing and lasted for only 30 minutes to an hour. Several workshops were undertaken to orient them on the calendar instrument and at the same time refine it. They were trained on how to fill out the instrument, do the right amount of probing, help them recall, how to avoid prompting the respondents on their answers, how to check gaps, inconsistencies, etcetera and lastly how to establish rapport with the respondent and maintain their participation in the survey for 2-3 hours. Series of mock interviews were done among the interviewers themselves as well as pilot testing of the tool. Subsequently, necessary revisions were done with the instrument.

One big revision in the calendar instrument, which is also its unique feature is the integration of the “with help of third parties” and “without help of third parties” option for every interview. It was observed during the pilot testing that some respondents asked for help and in the recollection of information and household co-members or even neighbours were eager in extending help. The modification includes adding a particular section on the tool that asks for the name of the “helper” as well as his or her relationship with the respondent and to mark the sections on the tool where assistance was needed. It is expected that ‘helping’ is related to data quality: on the one hand ‘helping’ might be an indicator of ‘lower data quality’ since the respondents apparently needs help, but on the other hand it may indicate ‘higher quality’ since the respondent is gaining help; this issue will be explored.

Data Quality Indicators

The data were measured based on different forms of reports:

1. Actual dates for the basic services.
2. Actual ‘numbers’ for each year - a) regarding the number of friends, acquaintances and visits to places b) participation in community activities, number of friends and acquaintances.
3. Names that were summed into numbers for – a) membership in organizations, b) individuals they had frequent face-to-face interaction with, c) individuals they frequently relied on for support, d) leaders for particular community issues, and e) third-party help.
4. Instances of transitions for each year that were summed into numbers for – a) change in household size, b) job change, c) job loss, and d) sickness in the household
5. Scales for the evaluation of the calendar instrument.

The data obtained through the application of the calendar tool is evaluated in terms of the indicators discussed below. In addition, to make the analysis of the data results more enriching and meaningful, triangulation of the findings with ethnographic research was done. The ethnographic research for this study was in the form of in-depth and key informant interviews, non-participant observation, focus group discussions, and archival data collection.

Data accuracy

Another benefit of the calendar method is that it can elicit high-quality answers from the sample respondents. Data accuracy was analysed by looking into the deviations between the reports of the respondents on the operational years of particular neighbourhood services and validating (existing) data that serve as a standard basis of comparison.

Heaping and Decaying

Along with the promise on data accuracy is the promise that “heaping” of answers on major time points is significantly avoided as well as the “decaying” or declining of answers. The existence of heaping does not mean by definition that this is an artefact, it may be a ‘true’ heaping. Heaping may also include ‘rounding’, which stands for higher reports of round or convenient numbers or dates (like 5 and 10, or 1995 and 2000). To check whether there are evidences of “heaping and decaying” in the self-reports of the respondents, the frequency of reported events on several domains are scrutinized at a yearly rate.

Completeness of KV1 Calendar Tool Timelines

The completeness of the timelines was examined in terms of number of gaps or omissions in the timelines as well as domains skipped or never answered.

“Don’t Know” Answers

A high level of “Don’t know Answers” on particular questions is considered as an indication of low data quality. Frequency of “don't know” answers was summed for analysis.

With/out Help of Third Party

It is thought that the assistance of a “third party” would yield better recall of dates and more reported events. This was investigated by comparing the interviews with “third party” with those that did not have “third party assistance”.

Respondent Evaluation

The evaluation of respondents and interviewers on calendar instruments have been positive (Belli et al., 2007; Freedman et al, 1988). More positive evaluation scores are associated with higher data quality.

**Field Results**

Interview Duration

The mean time taken to complete the KV1 survey was 101.9 minutes. Table 2 shows the bivariate association between the interview duration and several demographic and socioeconomic characteristics of respondents. The table reflects the mean time spent in each subgroup as well as some differences in some groups that are statistically significant. It is interesting to point out that the age group 40 years old and older took shorter time in mean time spent than the younger two age groups (39 and younger). This may imply that compared with the 40 years old and above, more events were happening in the lives of the younger respondents, entailing longer recall time for reporting. Between the two genders, the female took longer than the males in completing the questionnaire with a mean time of 98.6 minutes. Marital status also spells a difference in the mean time spent in accomplishing the tool with the widow and widower spending the shortest time in the interview (with a mean of 92 minutes). Moreover, the mean interview duration does not differ much among respondents who only had six years of education or less and those who reached high school. They would spend longer time in the interview than with respondents who had education beyond high school. This is further reinforced by the results of mean time in answering the tool in terms of occupation, the labourers (who were the least educated) spent the longest time in finishing the interview with 113.3 minutes and the retirees registered the shortest time of 72.5 minutes. It seems that the least educated and who are labourers had more events to report. A household who had 10 or more family members took the longest duration completing the tool (mean of 116.9 minutes) compared with households who had fewer members. This is logical since more household members would mean more information to remember pertaining to the children and adults in the household (educational history, employment, sickness history, et cetera) It is also worth noting that the mean time spent differs in terms of the mother tongue of the interviewee. The interview was conducted in Tagalog irrespective of the mother tongue of the respondent, which can either be Tagalog or Visayan dialect. This seems had an effect on the mean time spent since the respondents who had Visayan dialect as their native tongue spent much longer time (mean time of 101.3 minutes) than those individuals who are native speakers of Tagalog. In the same vein, the assistance of the “third party” in the completion of the KV1 Tool also affects the mean time spent. The presence of a “third party” in the interview registered a longer mean time spent than in an interview that did not have a “third party”.

Data Accuracy

Integrated in the Social History Calendar is the Neighbourhood History Calendar that asked respondents to recall historical information about the availability of basic services and public places in the community like electricity, water, and school, among others. The accuracy or correctness of some information gathered through the Neighbourhood History Calendar can be verified based on the composite measure. This composite measure was spawned through ethnographic interviews with program managers, local government leaders, and community leaders as well as archival data collection.

As shown on Table 3, deviations from the correct years were discovered in the recall of the respondents on when did the services become available or operational. These deviations range from one to four years. Among these basic services, school got the highest recall rate accuracy (88 percent correct dates) and with deviations of until two years, while the electricity got the lowest recall accuracy of 44 percent correct recall and with failure in recollection spanning to four years. The low rate of recall on electricity can be explained by the fact that some of the respondents still do not have electricity connection because they cannot afford the connections fees. Hence, they rely on candles, gas lamps, and if they have extra money they tap on their neighbour’s electricity connection at an agreed amount. So the date at which electricity became available is not so salient to them. On the other hand, the very high rate of recall for the school operations among the respondents shows the importance of schools in a resettlement community. Moreover, it may also be due to the fact that their memory on schools has been strongly associated with negative experiences. In-depth interviews and desk research revealed that during the early years of the resettlers in Kasiglahan Village, the absence of schools was a very big issue. Families relocated to the site without a school facility that can accommodate their children. Strong complaints were lodged to the Project Management Office (National Housing Authority) and several months later (in 1999), some unoccupied housing units were converted into classrooms. One unit would hold around 50-100 students with one teacher and some students needed to bring their own chairs to ensure that they have a chair to sit on during classes. A year later, a small school was constructed in the community. But still, it was not enough for all the students in the community and classes were held in three shifts to accommodate the students. Parents complained that the school hours were not enough for their children to learn substantially. In 2003, a new school, consisted of two buildings was constructed. It could now accommodate more students, offered college courses and shifts were reduced to two.

When correlation test was made between these recall deviations with socioeconomic and demographic variables, only deviations on day care centre recall revealed a relationship of -0.524 with the resettlement year variable. Regression output shows a significant relationship between the deviation of day care recall (in years) and the resettlement year, as the resettlement year increases by one year the deviations (in years) in day care recall decreases by 29 percent (-0.28758). This implies that the recall error decreases with time.

Heaping and Decaying

Heaping and decay were investigated in frequency reports of the respondents that reflect the trajectory of their social behaviour in the community, particularly information related with public places, community activities, social function, and individuals they meet frequently. Reports on these events were plotted yearly and to homogenize the respondents who came in the site in different years, the years were organized and labelled as before resettlement (BR), first, second, third, fourth, until 12th year during resettlement. Year 13 was dropped since it only covered five to eight-month period. The yearly rates of occurrence and quantity were plotted over the 12-year calendar period. The yearly rate was calculated as number of events, number of friends or acquaintances, and number of individuals in a year divided by the number of sample for that year.

Visits to Public Places

Average rates shown on Table 4 do not reflect clear heaping pattern, although heaping can be seen for visits to deep well, internet shop, and the NHA office. There seems to be no rounding as well. Moreover, there is no decay with passing of time: more often frequencies increase with time. Thus, there are no signs of serious recall error.

As can be seen on the table, there was quite a significant increase in the frequency of visits in the resettlement site a year after the displacement episode. The highest rate for the first year was the visit to deep well (yearly rate of 364.6) while the health centre or hospital was the least visited with a rate of 3.9. Over the next six years these yearly rate of visit to public places would gradually decline and would start increasing from year seven. From year nine till the 12th year fluctuating visitation rates can be seen. During interviews, respondents would include some explanations on their answers even without being asked to by the interviewer. Some said that they frequented more some of the public places in their new community (like the deep well, well, and public faucet) compared in their previous residence because water connection was still not available during their first few years. Thus, they had to fetch water everyday from the deep well, well or from public faucet. Similarly, the number of visits to the NHA office spiked during the first year since they had to attend meetings and pay their monthly amortizations amounting to Php 250.00 or 7 USD.

Acquaintances Made in Public Places

Following the question on the frequency of their visits to public places was the number of acquaintances they made in these public places. Table 5 provides us information on where these relocated households would make acquaintances “before” and “after” resettlement. The interviewer did not have to define the word “acquaintance” or “kakilala” (in Filipino) to the interviewees. Its meaning, which is “a person who they know slightly and not considered as close friend”, was shared among all the respondents.

Again, as can be gleaned on Table 5, there is no consistent heaping; no decay pattern; and the pattern of frequencies is explainable by the life situation of the respondents (e.g., many new acquaintances in the beginning and less later on).

The respondents explained during the interview that it was unavoidable to make new acquaintances during their first year, because they are new in the community as well as the others. Despite new entrants in KV1 every year, the numbers dwindled in the following years then stagnated as they remained to circulate in the same public places where they continued to meet their acquaintances.

Friends Made in Public Places

After getting the number of acquaintances they made yearly, they were asked about the number of friends they made. Table 6 does not show heaping pattern as well as decay. Similar with the frequency report on acquaintances made, frequencies on number of friends made mirror real life situation.

Compared with the quantity of acquaintances they made, the friends they made were much fewer. A year before the resettlement, the average number of friends a respondent would form averaged to three. Public places such as the well, store, and basketball court were greatly instrumental in meeting six to nine friends. A year after the households transferred to KV1, the deep well and well figured as greatly significant in making new friendships. Friendships made in these public places during the first year ranged from 84 to 88. The average number of new friends they met during the first year in deep well, public faucet, sidewalk, basketball court, and wet market shoot up by four folds to 40 folds. In the next 11 years, these public places remained a catalyst in the carving of new friendships among the resettlers, despite the significant drop in numbers (except in the case of the wet market) from second year onwards. Respondents were eager to share with the interviewers that during their first year they were wary in making new friends in a new community teeming with strangers who came from 10 different cities within and outside the Metro Manila. Thus, they would try to make friends with only few people during the first year, which they would maintain in the following years, and would not seek out to meet new friends in upcoming years, unless their present friends would introduce them to their own friends as well.

When all the reports for the visits, acquaintances made, and friends made were averaged, they yield a pattern very similar to each other (Table 7). Table 7 clearly sums up the trajectory of the respondent’s social behaviour in relation to public places over the 12-year calendar period. The average number of visits, acquaintances made as well as friends made spiked from their last year in their previous residence to their first year in Kasiglahan Village. The numbers for all domains continued to diminish, showing a pattern that is opposite to decay (with slight increase in year 9 and10) until the 12th year. This identical pattern for all three areas tells us the interconnectedness of each other, which also somehow validates their reports.

Participation in Community Activities

Participation in community activities is also found essential in the households’ social capital. The tool tried to capture it by asking them again how many times in a given year did they participate in different social activities. These given social activities were a result of ethnographic research done during the design of the tool. Looking at Table 8, we can see that all the average rates of participation in all community activities are stable and no pattern of heaping and decay can be seen.

The dramatic increase in participation in community meetings from 5.4 to 14.3 can be attributed to the immediate action of the Project Management Office (NHA) in organizing the new resettlers into Homeowners’ Association at a community and phase level. Kasiglahan Village 1 is composed of 14 phases. Elections of new leaders took place which spinned off into holding of several meetings aiming to address the severe problems on lack of school, electricity, water connection, among others. Along with this, although at a much lower rate, is their sustained participation in meetings called by NHA. Since KV1 is a government project, meetings of this nature were already built in in the programme. Thus, the number of meetings soared in the new community as well as the participation rate. Topics in this meeting range from an introduction of a new programme to giving reminders about their monthly amortization payment. Some mentioned that like in their former residence, they were not really interested to join in such activities and would rather look after the affairs of their households. This implies that poor households would never invest their time and money in something that they think would not bring them concrete rewards. They participate way more in meetings organized by community leaders and government people because the objectives are very clear and rewards were already harvested in the past. In addition, their common situation, which is being a full-time housewife might have been prevented them from leaving their house and participate in less poverty-related social activities such as Christmas or New Year’s parties.

Average Number of Acquaintances Made During Community Activities

Still, no heaping pattern is reflected on the figures. However, decay can be seen next to stable figures.

Table 9 generates an interesting story with a great diversion from what can be seen right away on Table 8. Although the respondents would participate more in community and government meetings, it does not follow that they would meet more new acquaintances there. Before the resettlement, respondents met a lot of new acquaintances in their participation in feast of the saints (191.6) than in community meetings (42.1) and government meetings (37.5). Number is also higher in holiday season parties and valentine’s parties (46.1). But they made much fewer acquaintances during wake and holy week. After their displacement in KV1 this trend continued for the new acquaintances they met every year in feast. They tried to justify their answers in relation with their answers in number of participation in community activities. They said that although their participation in feast, holiday parties and sports league were very rare, these rare participations would yield more acquaintances because hundreds of people from different phases and whom they never met before would be present in these events.

Average Number of Friends Made During Community Activities

Decay next to stability is again reflected on the average number of friends made during in participation community activities (Table 10).

Before resettlement, the respondents made the most number of friends during their participation in elections (19.6), followed by government meetings (13.0) and holy week (12.5) as illustrated by Table 10. Again, this is way less compared with the number of acquaintances made. This confirms the difference between making acquaintances and making friends. You do not need repeated face-to-face interactions in forming acquaintances. One event, like in the case of feast and holiday parties, is enough. Making friends is different. It requires more face-to-face interactions like in the case of joining election activities, participating in sports league, and in government meetings. Election activities span from one to two weeks, while sports league activities would last for a month, and government meetings are done in phases. Hence, the same group of people, who belonged to the same phase, would come together whenever there would be government meetings. Seemingly, these frequent face-to-face interactions would induce the forming of new bonds. In the following year in KV1, friendships would happen more in community meetings (20.4), holy week activities (16.1), and in sports league (13.2). These activities continued to be a venue in forming new friendships among the resettled households over the years with only slight increase and decrease from time to time.

Membership in Organizations

Table 11 presents to us the percentage of respondents who joined various associations present in the community. The increasing direction of the recall on organization memberships from year one to year seven can be interpreted as a reflection of a clear decay in the memory of the respondents. This decay can be attributed to the difficulty of recall task. Unlike in previous questions in which they were asked to give numbers, in this domain, they were asked if they were members of a certain kind of organization and if they were, they had to give the name of the organization. This illustrates the difference between episodic memory (pertaining to concrete information) and semantic memory (estimates). No heaping pattern can be seen.

Before resettlement, 10.7 percent of the respondents were members of homeowner’s association, 8 percent were religious group members, and 4 percent were members of parent-teacher association. After their transfer to Kasiglahan, memberships in community associations all increased. Homeowner’s association membership increased to 36 percent and women’s and men’s group membership to 5.3 percent. The trend in organization membership was generally increasing until the seventh year. In the next five years (year 8 to 12) the pattern fluctuated. Nonetheless, it is note worthy to point out that among these organizations, the employees union seemed to be negatively affected by the resettlement project. Perhaps this can be attributed to the number of household heads who became and remained unemployed for the first few years because of the dislocation that took place. They lamented during the interview that not only did the resettlement process uproot them from their previous residence, it also dislocated them their jobs. Either they could not afford the transportation fare or they were always late for work because of the very far distance of their new place to their old job. Overall, the households became more involved civically in their new community.

Number of Individuals they Frequently Engaged with

Respondents were also asked to give the names of different individuals they frequently engaged with for the 13-year timeline. These individuals are plain persons who can be their neighbours or friends, government representatives, non-government representatives, and church representatives. They could give up to 10 names for the plain individuals, up to eight names for government representatives, eight names as well for non-government representatives, and another eight for church representatives.

Table 12 again presents the effect of recall task when collecting episodic memories and semantic memories. Unlike in previous domains (public places and community activities) where they gave big numbers on number of friends made, they enumerated few individuals whom they frequently engaged with. Apart from this, decay pattern is also mirrored. Nonetheless, heaping is not reflected.

Before resettlement, as can be seen on Table 12 the respondents had five simple individuals with whom they frequently interacted. They had interactions with (one of) these people almost everyday (average rate of interaction 327.8), with an average of 0.45 government representatives they interacted at a frequency average of 130.8 times a year, with 0.03 NGO representatives at an average of 139.25 face to face interactions, and with 0.43 church representatives they had 177.27 interactions a year. After their resettlement to KV1, these figures for the number of individuals increased year after year while the average number of face-to-face interactions decreased over the years. They were honest to tell during the interview and focus group discussions that they really have very few friends or acquaintances from the government, church and, NGO. They attribute it to their natural social behaviour that they are likely to engage with individuals who are like them. Plus the fact that there are really rare occasions like natural disaster or introduction of new government projects, where they can form lasting relationships with people from the government and church. However, they are open for establishing meaningful ties with them.

Average Number of Persons they Usually Relied Upon

Apart from eliciting the foregoing information, respondents were also asked to give the names of the person they would frequently ask for help on different matters for the 13-year timeline. They could give up to eight names.

There are no patterns of heaping and decay found in Table 13. However, it is surprising that the numbers on this domain are extremely stable that probably there is an amount of bias in the recall. This can be attributed to how the respondents would process the relevant questions. Discussions with the interviewers revealed that questions on this domain would usually instantly generate lament (while giving names) from the respondents on how hard it is to get help from the community, how everybody is poor and that they can only rely on few individuals such as their spouse, eldest child, in-laws or close friends.

These numbers on Table 13 are indeed very low compared with their reports on number of friends and acquaintances as well as the number of individuals they frequently engaged with. This was one of the issues during the focus-group discussions with them. Answers were mixed. Some said that despite very frequent interactions with their neighbours or friends, they would still find it embarrassing to ask help from their friends and would rather depend solely on their spouse or in-laws, others said they just relied on their very few, tested, close friends for support, while some shared that they did not ask the help of their friends because they were also not helping them. Further, they uttered that it is difficult to ask for financial assistance from their friends or acquaintances in KV1 since “almost everybody” was also in need of money like them.

Completeness of KV1 Calendar Tool Timelines

Thorough inspection of the 150 filled-out calendar questionnaires, revealed that there are no gaps or omissions in the tool timelines. All the domains were filled out none was skipped. Generally, this is an indication of good data quality. This can be attributed to the training done with the interviewers and the constant reminder that before an interviewer would leave the respondent’s place, he or she should go over again the questionnaire and check for timeline or domains missed. Apart from this, the researcher and the research assistant would do routine checking of the accomplished questionnaires. During check ups, verification were made on illegible written codes or answers and clarification on unclear marginal notes that the interviewer wrote on the tool during the interview, like a blank timeline on household income would mean that the household did not have an income on a particular year but just relied on food rations.

“Don’t Know” Answers

Questions on Section P required them to give the name of the person who acted as a leader in the community in several problematic situations. Regarding school-related issues, 31 out of the 150 respondents answered “don’t know” before resettlement and after resettlement this reduced to 29 “don’t know” answers (Table 14). Twenty-nine interviewees did not know who acted as their leader in violence-related issues in their previous community and after the resettlement 24 failed to give the name of their leader. Thirty-two individuals likewise replied “don’t know” when asked to give the name of their leader for disaster situation in their previous residence. This figure only decreased by 1 after the resettlement. This implies two things either they really did not know the names of the leader or they could not recall. Nevertheless, the differences in reports are negligible.

Help by “Third Party”

More than one-third of the respondents cited for “fast recall” as their reason in asking help from a third party during the interview (Table 16). The intervention of the third party was only allowed in domains that collect information about the household across the 12-year timeline period. These are information about changes in household size, employment status, job change, and sickness status of the household members. Table 15 shows that interviews with the help of a third party generated more reported transitions in almost all domains - changes in household size, job change, and job loss. More reported events means better data quality. There are no significant relationships found between help of a third party and these domains as well as with socio-economic variables.

Interview Evaluation

Most of the respondents (61 percent) found the calendar interview easy, while 11 percent found it hard (Table 16). Seventy-one percent enjoyed the interview session and four percent did not. These results are complemented by the ratings given by the interviewers to the sessions they undertook with the respondents. They considered 71 percent of their interviews as easy and with 76 percent enjoyment rate. When one respondent was asked why she enjoyed the interview, she replied with a delight that the session made her remember old friends who helped her long time ago.

**Conclusions and Discussion**

The present study brings forth evidences relative to the usefulness and applicability of the tool in social capital studies that aim to trace the formation of social capital in a community comprising of households who are economically and educationally challenged. The instrument was able to capture the different transitions in the lives of the households from a year before the resettlement and years later. Along with this are findings regarding the issues affecting the quality of the obtained data. Research questions mentioned in the early part of this paper regarding the quality of retrospective data collected with a calendar method from a hard-to-reach population will now be answered.

The high rate of recall on the historical operation of some of the basic services present in the community is a positive reflection of how the tool triggered recall of different information among the respondents. More importantly, the 88 percent recall rating on school reinforces the previous findings on the effectiveness of landmark events pertaining to children in the facilitation of high-quality recall. The absence of school for their children who were also uprooted from their previous community was quite an issue among the parents and the following associated events further fossilized their memory on it. The low percentages of “don’t know” answers also imply good data quality.

Hardly any heaping was found in the data. No signs of classical recall error and decay with time were found for most of the issues. The pattern of stable or changing frequencies, or frequencies that decreased toward the present, could often be explained by the situation of the respondents (for example the unavailability of water services explains visiting the public faucet or wells; or the decline in activities with the years), as was indicated by triangulation results. There are so many occasions that showed little signs of recall bias, which could indicate good data quality. But on certain specific issues, when names were asked, a clear decline in numbers with increasing time was observed (decay). Probably this latter can be attributed to recall error due omissions in episodic memory. The question rises whether the patterns in findings that show no clear signs of recall bias can be attributed to estimates (reconstructions based on semantic memory) and how correct these estimates are.

The absence of gaps in the completion of the timeline is also a positive indicator of the suitability of the tool with the nature of the respondents. This maybe credited to the visual feature and landmarks of the instrument coupled with the trainings done with the enumerators plus the constant reminder to check if all the domains were filled out with no gaps before finishing the interview. The ability of the interviewer to establish rapport with the respondents was also a key in sustaining the participation of the respondents. Check-up meetings with the interviewers revealed that there were times when the respondents would show impatience towards the interview because of their impending household chores or a crying toddler, but the interviewers would politely and cheerfully request for their continued participation on the survey and they would oblige. There were also times when the interview was done while the respondent was cooking lunch or taking care of a child. Sometimes the weather would be so hot and there was no electric fan. It was imperative that the interviewer remained focused on the goal of the survey while at the same time resilient with the unfavourable condition. No timeline skipped and domain missed means more reported events. Nonetheless, Glasner (2011) has warned researchers that although the calendar procedures can yield data consistency and completeness, they sometimes do not equal to higher validity but rather a biased reconstruction. Hence, probing with care is indeed necessary.

The findings on the utilization of a “third party” during the interview which apart from making the respondent more confident with his or her answers and how it is associated with more reported transitions in almost all the relevant domains is something to ponder upon and should be investigated more.

The positive assessment of the respondents and the interviewers towards the calendar instrument used in this study further confirms the findings already pointed out by several studies as regards its acceptability and positive evaluation of the respondents and the interviewers (Belli et al., 2007; Freedman et al., 1988; Glasner, 2011). However, one additional message of the instrument’s evaluation results is that it is also found appropriate for hard-to-reach population.

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Table 1. Descriptive Statistics of Respondents



Table 2. Mean Time Spent in Completing the Questionnaire

Table 3. Deviations Between Respondents’ Report of Basic Services Operational Date and Composite Measure of Operational Date



Table 4. Average Visits to Public Places



Table 5. Average Number of Acquaintances Made in Public Places



Table 6. Average Number of Friends Made in Public Places



Table 7. Average Number of Visits, Acquaintances and Friends Made in Public Places



Table 8. Average Number of Participations in Community Activities



Table 9. Average Number of Acquaintances Made in Community Activities



Table 10. Average Number of Friends Made in Community Activities



Table 11. Membership in Community Organizations (Percent to Total Respondent)



Table 12. Average Number of Individuals They Frequently Engage with



Table 13. Average Number of Persons they Rely on for Assistance



Table 14. Frequency Presentation of “Don’t Know” Answers



Table 16. Evaluation Rating



Table 15. Percentage Presentation of Transitions in Household Size, Job, and Sickness in the Family (with and without “third party help”)

Annex1

**Major Life Domains in the KV1 Calendar Tool**

1. Respondent’s marital history
2. Children’s information
3. Household-related information
4. Physical features of the community
5. Respondent’s social engagement
6. Respondent’s perception on the community

**Under these major life domains are sub-domains which are presented below:**

1. Respondent’s Marital History
2. Children’s Information
   1. Child’s birth year and residency status
   2. Children’s education history
3. Household-related Information
   1. Household composition
   2. Employment information
   3. Income
   4. Sources of income
   5. Health status
   6. Food budget
   7. House structure information and relevant issues
4. Physical Features of the Community
   1. Basic services in the community
   2. Public spaces in the community
5. Respondent’s Social Engagement
   1. Respondent’s social activity in the public places
   2. Participation in community’s social activities
   3. Persons the respondents communicate often
   4. Persons, entities, and organizations who help the respondents on particular needs
   5. Membership in organizations/associations
6. Respondent’s Perception on the Community
   1. Networks and mutual support organizations
   2. Social exclusion in the community
   3. Collective action in the community
   4. Solidarity in the community
   5. Trust and reciprocity
   6. Conflict resolution