

An Assessment of *Sada* Technology and Its Use in Ghazni and Takhar Provinces of Afghanistan

Evaluation Report: Volume I

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Executive Summary

On September 18, 2005, Afghanistan held its first parliamentary election. Voice for Humanity distributed 41,000 digital audio players and 5,000 replacement chips to existing devices with civic education content into 23 Afghan provinces four weeks prior to the election.

Voice for Humanity, a U.S.-based, non-profit humanitarian organization, deployed a hand-held, battery-powered digital audio device called, *Sada (Afghan for "Voice")*, with pre-programmed orality-based information (sometimes referred to as entertainment-education in academic communications vernacular), to educate the Afghan population about civil society, and the importance of civic engagement during the parliamentary election. This was the third project by Voice for Humanity in Afghanistan.

This study used an experimental design, with one treatment district and one control district in both Ghazni and Takhar provinces to: (1) assess the efficacy of the *Sada* as an educational technology platform; and (2) to determine the impact of *Sada* on civil society knowledge and attitudes, and on voting behavior. Survey data was collected at two points in time: (1) a pre-election baseline; and (2) a post-election follow-up four weeks later (panel N=778). We examined the changes in knowledge and attitudes about civil society governance, and voting behavior, between the treatment group (i.e., those that received *Sada*) and control group (i.e., those that did not receive *Sada*). The results of the study are highlighted below.

The *Sada* was Listened to by 2.4 Million Afghans

During the four-week listening period the *Sada* reached approximately 2.4 million Afghans. The mean number of individuals in both treatment districts that listened to each *Sada* with the *Sada* recipient was 48.4 people.

The *Sada* Was Readily Accepted in the Homes and Families of Afghans

The majority of respondents in both Gelan and Warsaj listened to their *Sada* in their own homes, or in a relative's home. In Warsaj, more than half of all respondents said that they also listened to the *Sada* at a friend's house.

In Gelan, 75 percent of respondents listened to *Sada* with other individuals. Some 96 percent of *Sada* recipients in Warsaj listened with others. The majority of respondents in both districts listened with their spouse, children, and/or family members. The *Sada* was also listened to with friends, schoolmates, co-workers, and occasionally with their Mullah.

The mean number of listening sessions in public settings (non-home) in both districts was 1.4. Approximately one-third of *Sada* recipients conducted listening

sessions in public settings. On average, 2.1 people listened to the *Sada* with the recipient in a public setting. In both districts several respondents reported connecting the *Sada* to loudspeaker and broadcasting the *Sada* programs several times.

The *Sada*'s Information Was Shared and Discussed With Others

At least 63 percent of respondents in Gelan discussed what they heard on *Sada* with family and friends. In Warsaj, some 47 percent of respondents discussed *Sada* contents with others. More respondents in Gelan discussed the *Sada* programs with their spouse and/or family members, compared to respondents in Warsaj.

The *Sada* Was Listened to Frequently and Exhaustively

Sixty-one percent of respondents in Gelan listened to the entire *Sada* contents (16 hours). Almost all respondents in Warsaj (99.5 percent) listened to the entire *Sada* contents. At least 37 percent of respondents in Gelan listened to their *Sada* two or more times per day. In Warsaj, 34 percent of *Sada* users listened to the contents two or more times per day. At least 46 percent of individuals in Gelan listened to the *Sada* once per day, compared to 50 percent in Warsaj.

The *Sada* Continued to be Used After the Elections

Respondents in both Gelan and Warsaj districts reported listening to their *Sada* following the September 18, 2005 parliamentary election. In Gelan, 95 percent of respondents continued listening to their *Sada*, and in Warsaj, 98 percent of listeners played their *Sada*. At least 56 percent of Gelan residents that received a *Sada* listened once per day following the election; some 44 percent of *Sada* recipients in Warsaj played the contents in the post-election period.

The *Sada*'s Content Was Perceived as Trustworthy, Accurate, and Credible

All of the respondents in Warsaj, and 98 percent of the respondents in Gelan, believed that the *Sada* provided correct information. At least 99 percent of *Sada* recipients in Warsaj, and 98 percent in Gelan, agreed that the *Sada* information was trustworthy. Almost all of the respondents felt that the *Sada* content was interesting to listen to (Gelan=97 percent; Warsaj=99 percent), and that what they heard on *Sada* helped them to understand the importance of the parliamentary election (Gelan=98 percent; Warsaj=98 percent).

Some 78 percent of *Sada* users in Gelan, and 70 percent in Warsaj, agreed that the program language was easy to understand. Almost all agreed that the programs were entertaining (Gelan=93 percent; Warsaj=99 percent). Most of the respondents in both treatment districts said that the messages from local leaders made them believe that the *Sada* content was important (Gelan=87 percent;

Warsaj=99 percent). Overall, the *Sada* contents were well-received; the programs were perceived as credible, trustworthy, and culturally appropriate.

The Value of *Sada* as an Information Medium Was About Equal to Radio

The use of both radio and the *Sada* appear to be highly complementary as mass media and small media channels to reach Afghan society with information. In Warsaj district, respondents reported that they would prefer to receive information about politics in Afghanistan from the *Sada* (58.7 percent) as opposed to receiving such information from the radio (40.7 percent). In Gelan, slightly more respondents would rather receive political information from the radio (47.4 percent) than from their *Sada* (44.0 percent).

The *Sada*'s Technology Was Highly Reliable and Easy to Use

Overall, the majority of respondents in both treatment districts found the *Sada* unit "very easy" or "easy" to operate. Ninety-nine percent of *Sada* users in our treatment districts reported no difficulties with the device.

Several *Sada* users stated that they liked the battery and its solar-powered charger, noting that using the *Sada* did not have any associated operating expenses.

1. The VFH *Sada* Project

The *Sada* is a low-cost, battery-powered audio player¹ with a built-in speaker, designed to communicate audio information to oral communicators. Information recorded on a plug-and-play chip can be replayed, discussed, and shared with others in small listening groups. The information on the chip cannot be copied or modified (Appendix A).

In the summer of 2004, Voice for Humanity (VFH), a non-profit humanitarian organization based in Lexington, Kentucky, introduced the *Sada* in Afghanistan. The recorded messages encouraged voter registration prior to Afghanistan's 2004 presidential election. A post-hoc evaluation of that project showed that voter registration and voter turnout on election day were higher in areas where the *Sadas* were distributed than in other areas.

In August 2005, VFH distributed an additional 41,000 *Sada* units (20,500 pink units for women, and 20,500 silver units for men) in 23 provinces of Afghanistan.² The *Sada* plug-and-play chip contained information about the parliamentary elections and civic engagement, including civil society governance, principles of democracy, the purpose for a constitution, the responsibilities of a parliament, the purpose for an election, basic human rights, women's rights, and the importance of voter participation. The *Sada* information encouraged Afghans to (1) participate more fully in civil society processes, and (2) vote in the September 2005 parliamentary election. These messages were delivered using (1) entertainment-education programs, that is, dramas, songs, and comedy skits with embedded civic education messages, (2) readings from the Koran, and (3) messages from Afghan opinion leaders about the importance of civic engagement. This content was provided in the two main languages of Afghanistan, Dari and Pashto.

¹ The *Sada* unit comes with a solar-powered battery charger.

² The *Sada* project was funded by the United States Agency for International Development (USAID).

2. Study Overview and Methodology

The goal for the proposed evaluation was to assess the appropriateness of the *Sada* device for disseminating information about civic engagement in Afghanistan.

Study Design Overview

For the purposes of the present research study, two provinces were selected as research sites, Ghazni and Takhar. In Ghazni province, Gelan district was randomly selected as the treatment site (i.e., the site where the *Sada* device was distributed), and in Takhar province, Warsaj was the selected treatment site.

The two provinces were strategically selected: (1) each province was situated geographically in an area that was not exposed to *Sada* in 2004, when *Sada* units were distributed by VFH prior to the Presidential election,³ (2) each province was in an area that was beyond the radio broadcasting footprint of Afghan media, and thus less likely to be impacted by radio messages about the parliamentary election, (3) each province was in a relatively secure region of the country, and (4) each province was physically accessible to the research field teams.

The two districts within each province were selected using UNHCR profiles.⁴ The selection criteria for the experimental and control districts in each province were (1) that the districts within each province were similar in population size and ethnic composition, and (2) that the districts within each province were secure from Taliban threat so that field staff would be safe when conducting interviews.

Study Areas

The data were gathered in Gelan in Ghazni Province, and in Warsaj in Takhar Province. Gelan is located in the southwest of Ghazni province, approximately 2.5 hours from the province center. The district consists of mostly desert and drought affected land. An estimated 78,000 individuals live in Gelan. The population is 100 percent ethnically Pashtun, and speak Pashto. This district was a stronghold of the *Taliban* before their regime was toppled. Military groups, including *Taliban* remnants are said to be currently active in this district.⁵

³ *Sada* units were not distributed in either Ghazni or Takhar in 2004, or in the provinces immediately surrounding Ghazni and Takhar.

⁴ UNHCR is the United Nations High Commissioner for Refugees. This agency publishes Field Office District Profiles for each of the provinces in Afghanistan.

⁵ Information about each of the study districts is drawn from UNHCR (1) Field Office Ghazni District Profiles, and (2) Field Office Takhar District Profiles, available at the UNHCR website.

Warsaj is located in the southernmost region of Takhar province. It is ethnically *Tajik* (100%). The population consists of approximately 40,000 individuals. The language spoken in Warsaj is *Dari* (Persian). The district is mountainous with limited land for agriculture. Many villages are inaccessible by road. This district did not experience heavy fighting during the *Taliban* time, and has not been affected by drought.

Individuals in these two study districts live in large compounds made of mud bricks. These compounds contain a few houses with large yards surrounded by high walls. It is usual for several related families to live together in one compound. Each family has an average of six members. Women are mostly confined to their compounds and immediate surrounding areas. Their movement is limited to their own village. Women that travel outside their compound, do so with a male escort, and cannot show themselves to men who are not members of their family without a male family member being present. It was necessary for female interviewers to conduct interviews with female study participants. Electricity is limited in all four districts.

Study Sample

Table 1 summarizes the sample sizes for the treatment groups for the post-election survey.

Table 1. Sample Sizes for the Follow-Up (Wave 2) Survey in the Two Treatment Districts in Afghanistan.

Region	Province	Treatment Districts	Post-Election Survey
Southeast (Pashtun)	Ghazni	Gelan	175
North (Tajik)	Takhar	Warsaj	189
	TOTAL		364

See Appendix C for a profile of the treatment district survey respondents.

Sampling Procedures

The present study used a list sampling method to identify group survey respondents. The list sampling method for selecting the respondent group was a cost-effective, time-efficient, and appropriate method in the Afghan context. The study called for interviews with *Sada* users. Approximately 250 *Sadas* were distributed in each of the experimental districts (*Gelan and Warsaj*). In order to interview only those individuals that received a *Sada* it was necessary to be able to locate those individuals. Locating those *Sada* recipients necessitated a list of individuals that receive a *Sada* unit.

In order to obtain a list of *Sada* users, VFH facilitators collaborated with the District Administrator's office in each district. In Ghazni province, two VFH staff members met with the District Administrator (DA) in Gelan district (the experimental site) to introduce the *Sada* program. The DA appointed 20 women and 20 men to act as team leaders. The team leaders worked at the village level in their respective districts to generate a list of names of potential *Sada* recipients. These recipients, to the extent possible, represented individuals who were respected in their local community, thus providing an opportunity to access their social networks.

Each team leader collected 10 names, resulting in a list of 200 women's names and 200 men's names in Gelan District. The list of 400 names was given to Altai Consulting, a Kabul-based research agency. Altai Consulting selected a random sample of 125 women and 125 men from the list of names for Gelan district. The same list-generation and random name-selection processes were followed for Warsaj, the experimental district in Takhar province.

Altai Consulting, a premier research agency in Afghanistan, conducted a baseline survey of the four districts in the two study provinces in August 2005, (1) using the list of 250 names (125 women and 125 men) in the experimental districts, Gelan and Warsaj, and (2) using a random sampling method and screening questions to obtain study samples of 125 women and 125 men in Andar district that matched Gelan in ethnicity and language, and 125 women and 125 men in Farkhar district that matched the study sample in Warsaj district.

Each of the 250 individuals who were interviewed in each experimental district (Gelan and Warsaj) received a *Sada* listening device. Distribution of the *Sadas* was coordinated by VFH in Kabul, and carried out (1) by local distributors in Gelan district, and (2) by two VFH coordinators in Warsaj district. A local woman accompanied the VFH men to ensure that they would be able to give the *Sada* to the women on the list.

In each district, the VFH coordinators provided a brief training session on how to use the *Sada* device (how to turn the device on and off, how to recharge the batteries using the solar charger, and how to scroll through the content), prior to distributing the device to each individual.

Survey Instrument

A post-election questionnaire (Appendix B) was developed. The survey questionnaires were translated into Afghanistan's two main languages, Dari and

Pashto, pre-tested with a representative sample of the study population, and revised as necessary.

Data Collection

Altai Consulting was contracted to conduct the fieldwork and data collection for the follow-up surveys. This agency was responsible for (1) training the fieldworkers, (2) pre-testing the survey instruments, (3) fielding the survey, (4) conducting quality assurance data monitoring on a daily basis while in the field, (5) compiling the raw data, and (6) cleaning the dataset.

Two teams of Altai Consulting research fieldworkers (each team with its own Team Leader) conducted in-person interviews using the questionnaires with participants in the four study districts.

Data Management

The data from the field surveys were entered into an SPSS data file for storage and processing at Altai Consulting in Afghanistan. Altai Consulting (1) assigned variable labels and value labels for each variable, and (2) cleaned the data.⁶ The cleaned data files were sent to the evaluation team in the United States for analyses.

Data Analyses

Analysis of the survey data consisted of univariate examination of the variables; the data were screened to ensure that the assumptions for statistical analyses were fulfilled. Erroneous data were identified and addressed. The analyses were conducted using a data set of respondents that participated in follow-up surveys (N=364). All analyses were conducted using SPSS version 13.0 (SPSS, 2004).

Response Rate

The overall response rate in the follow-up survey was 77.8 percent. The response rates for the follow-up survey in each of the study districts were as follows: Gelan, 70.0%; and Warsaj, 75.6%.

The response rate for Gelan District was the lowest among the districts. Security issues in Gelan prevented the researchers from contacting some individuals for the follow-up survey. The field Team Leaders reported that several women said that they did not receive a *Sada* following their baseline interview. According to the distribution lists, those women did receive the listening device. The Team Leaders suggested that the women who said they did not receive a *Sada* were

⁶ Only the Kabul-based research agency and the U.S.-based evaluators had access to the data files prior to delivering the findings report to VFH.

afraid to acknowledge receipt because of possible repercussions from *Taliban* who were patrolling the area by motorcycle. In one village, the *Taliban* seized an individual's *Sada* (Personal interview, October 16, 2005). Similar problems occurred in Warsaj district.

3. Findings: *Sada* Use and Technology Assessment

The follow-up survey questionnaire contained questions for respondents in the experimental districts to assess (1) how they used their *Sada* (e.g., did they listen with others, did they organize listening sessions in their homes), (2) how they liked the contents, (3) their attitudes toward the contents, and (4) what they thought about the technology/device (e.g., ease of use, color, battery life).

Only three individuals (out of the 175 that received a *Sada*) in Gelan district did not have their *Sada* at the time of the follow-up survey; two respondents had given the *Sada* to a friend, and one person gave their device to a neighbor. All of the respondents in Warsaj reported current ownership of their *Sada*.

Locations Where Respondents Listened to *Sada*

Figure 1 shows the percentage distributions of locations where *Sada* recipients listened to the audio content. The majority of respondents in both Gelan and Warsaj listened to their *Sada* in their own homes, or in a relative's home. In Warsaj, more than half of all respondents said that they also listened to the *Sada* at a friend's house.

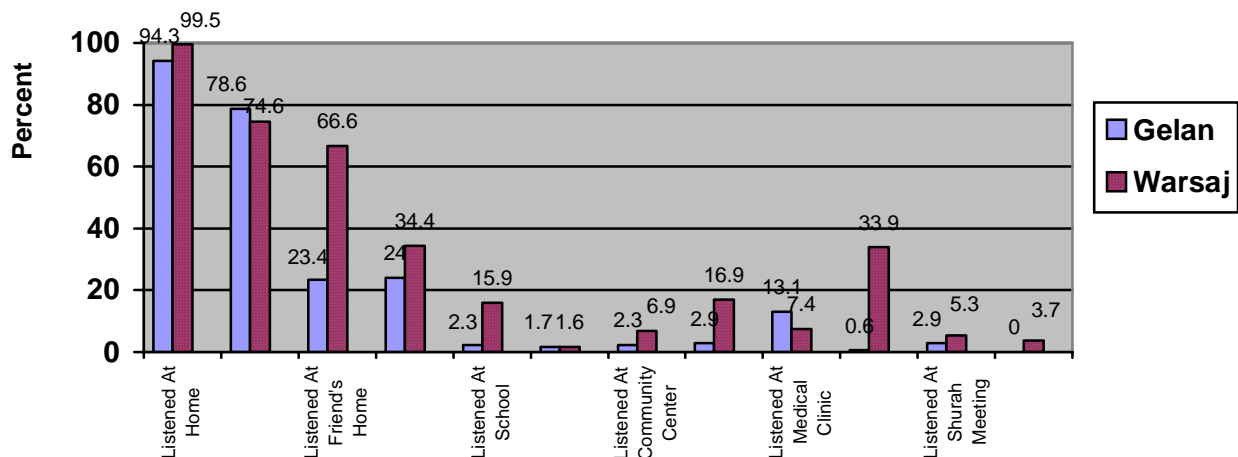


Figure 1. Percentage Distribution of Locations Where Respondents Listened To *Sada*, in Gelan and Warsaj Districts, Afghanistan (Gelan, N=175; Warsaj, N=189).

Listened to *Sada* With Others

In Gelan, 75 percent of respondents listened to *Sada* with other individuals (N=131). Some 96 percent of *Sada* recipients in Warsaj listened with others (N=182). Figure 2 shows the percentage distribution for individuals or groups with whom *Sada* was shared. The majority of respondents in both districts listened with their spouse and/or family members.

The mean number of individuals in both experimental districts that listened to the *Sada* with the *Sada* recipient, in his or her home, was 7.8 (± 5.5 persons), with a range of between one and 40 individuals. *Sada* recipients held approximately 5.7 listening sessions in their homes (± 6.3 sessions). The number of listening sessions in one's home ranged from one to 50.

The mean number of listening sessions in public settings in both districts was 1.4 (± 5.3). The majority of *Sada* users did not conduct listening sessions in public settings (64 percent). On average, 2.1 people (± 4.8) listened to the *Sada* with the recipient in a public setting. In Gelan, 12 respondents reported connecting the *Sada* to loudspeaker and broadcasting the *Sada* programs. In Warsaj, only 4 individuals connected their *Sada* to a loudspeaker. The mean number of times that the *Sada* was broadcast in a large group setting was 3.1 (± 1.2).

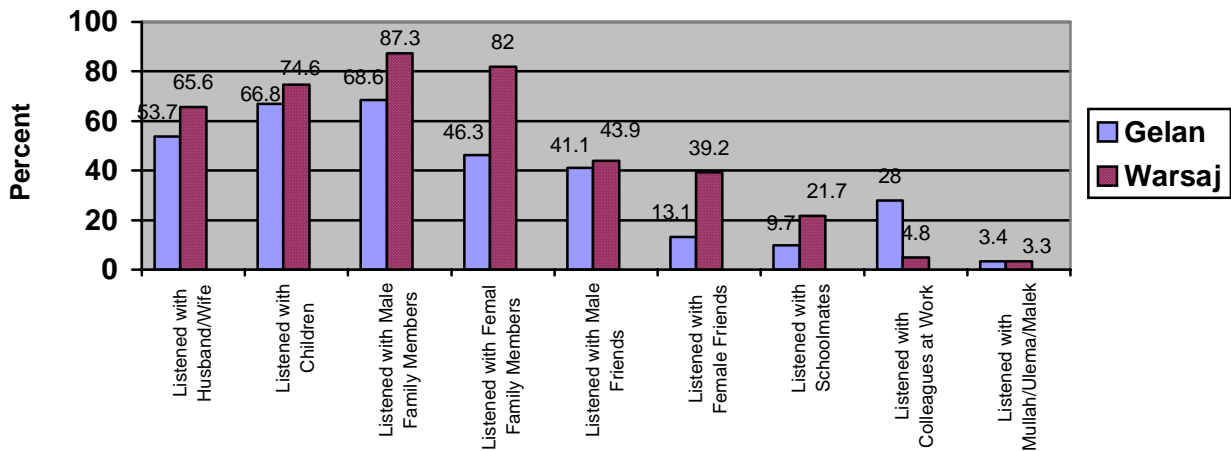


Figure 2. Percentage Distribution of Respondents That Listened To Sada With Others, in Gelan and Warsaj Districts, Afghanistan (Gelan, N=175; Warsaj, N=189).

Discussed Sada With Others

At least 63 percent of respondents in Gelan discussed what they heard on *Sada* with others (N=110). In Warsaj, some 47 percent of respondents discusses *Sada* contents with others (N=98). More respondents in Gelan discussed the *Sada* programs with their spouse and/or family members, compared to respondents in Warsaj (Figure 3).

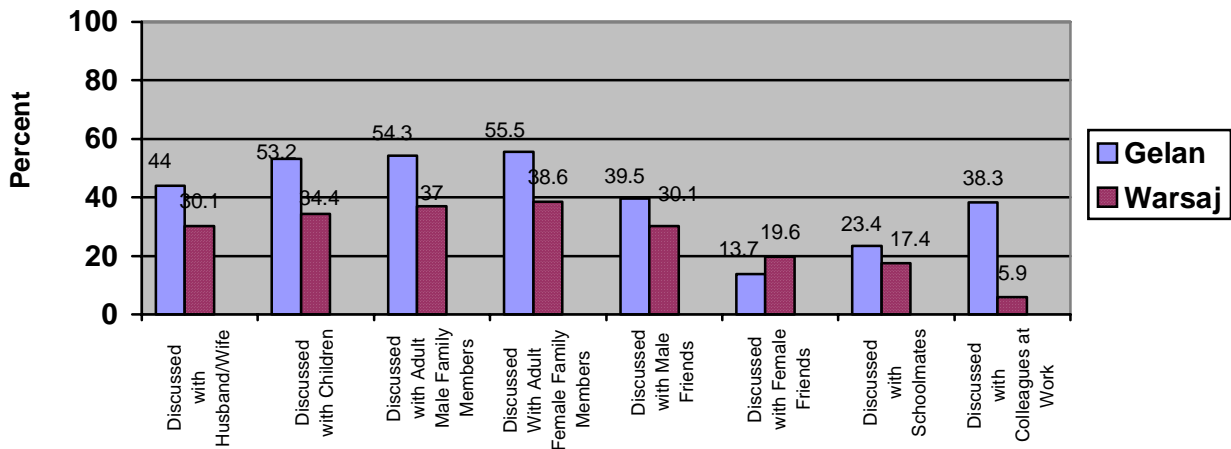


Figure 3. Percentage Distribution of Respondents That Discussed Sada With Others, in Gelan and Warsaj Districts, Afghanistan (Gelan, N=175; Warsaj, N=189).

Listening Habits

Sixty-one percent of respondents in Gelan listened to the entire *Sada* contents (N=107). Almost all respondents in Warsaj (99.5 percent) listened to the entire *Sada* contents (N=188). At least 37 percent of respondents in Gelan listened to their *Sada* two or more times per day (N=65). In Warsaj, 34 percent of *Sada* users listened to the contents two or more times per day (N=65). At least 46 percent of individuals in Gelan listened to the *Sada* once per day (N=80), compared to 50 percent in Warsaj (N=95).

Figure 4 shows the percentage distributions for *Sada* listeners' content preferences. Overall, listeners in both Gelan and Warsaj preferred the information about the importance of the parliamentary elections (49.1 percent and 59.8 percent respectively). In Gelan, messages about security issues (e.g., turning weapons over to the government) were liked the least (22.3 percent). Respondents in Warsaj did not like the messages about democracy and civil society, as much as any of the other content (34.9 percent).

Respondents were asked two opened-ended questions about the *Sada*: (1) "What did you like the most about using the *Sada*?" and (2) "What did you like least about using the *Sada*?" The majority of respondents liked listening to the drama, comedy, or songs (N=93), and many liked the information about the elections (N=18), about the parliament (N=15), about women's rights (N=11), and the children's programs (N=6). Several *Sada* users liked the battery and charger, and the fact that using the device did not have any associated expense (e.g., paying for batteries) (N=25). A few respondents liked the simple, local language of the programs (N=9). Some 55 listeners said that there were not enough songs

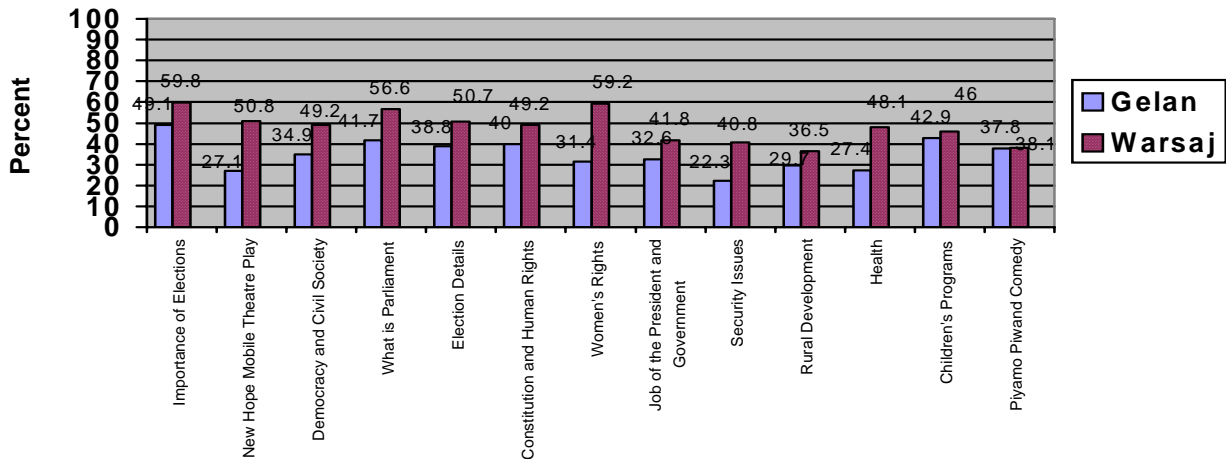


Figure 4. Percentage Distribution of *Sada* Listeners' Content Preferences, in Gelan and Warsaj Districts, Afghanistan (Gelan, N=175; Warsaj, N=189).

on the *Sada* or that the songs were not good (N=55). Several respondents remarked that they did not like the sound of the donkey in one of the programs (N=38). Other respondents did not like that the battery lost its charge quickly (N=16).

Post-Election *Sada* Use

Respondents in both Gelan and Warsaj districts reported listening to their *Sada* following the September 18, 2005 parliamentary election. In Gelan, 95 percent of respondents continued listening to their *Sada* (N=167), and in Warsaj, 98 percent of listeners played their *Sada* (N=186). At least 56 percent of Gelan residents that received a *Sada* listened once per day following the election (N=98); some 44 percent of *Sada* recipients in Warsaj played the contents in the post-election period (N=84).

Attitudes and Beliefs About *Sada* Content

Respondents in Gelan and Warsaj were asked a series of questions to determine how they felt about the *Sada* content. Figures 5-11 present the percentage distributions for listeners' attitudes toward the accuracy, trustworthiness, interest-level, helpfulness in understanding election issues, language, entertainment-value, and overall importance of the *Sada* information.

All of the respondents in Warsaj, and 98 percent of the respondents in Gelan, believed that the *Sada* provided correct information. At least 99 percent of *Sada* recipients in Warsaj, and 98 percent in Gelan, agreed that the *Sada* information was trustworthy. Almost all of the respondents felt that the *Sada* content was interesting to listen to (Gelan=97 percent; Warsaj=99 percent), and that what they heard on *Sada* helped them to understand the importance of the parliamentary election (Gelan=98 percent; Warsaj=98 percent).

Some 78 percent of *Sada* users in Gelan, and 70 percent in Warsaj, agreed that the program language was easy to understand. Almost all agreed that the programs were entertaining (Gelan=93 percent; Warsaj=99 percent). Most of the respondents in both experimental districts said that the messages from local leaders made them believe that the *Sada* content was important (Gelan=87 percent; Warsaj=99 percent). Overall, the *Sada* contents were well-received; the programs were perceived as credible, trustworthy, and culturally appropriate.

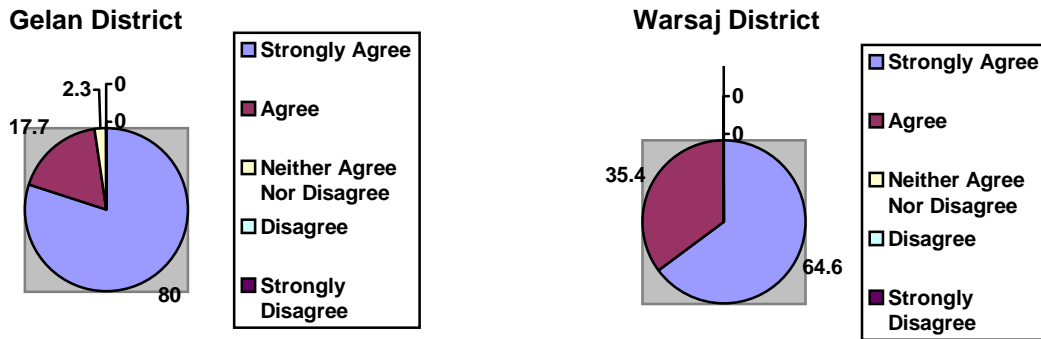


Figure 5. Percentage Distribution of Respondents That Agreed or Disagreed With the Statement “I Believe That the *Sada* Provided Correct Information,” in Gelan and Warsaj Districts, Afghanistan (Gelan, N=175; Warsaj, N=189).

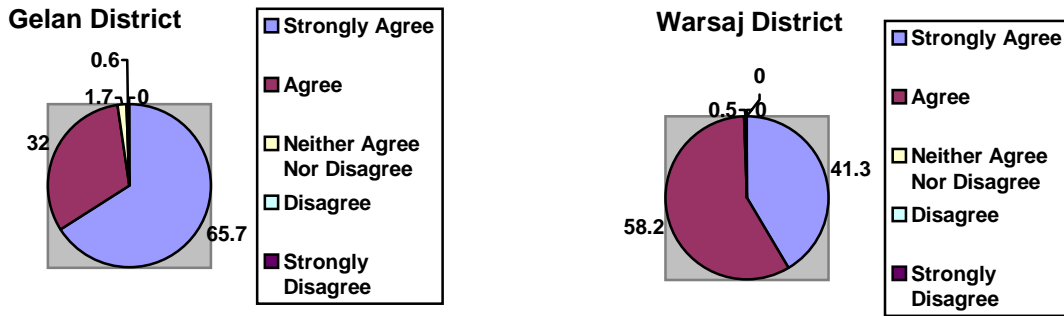


Figure 6. Percentage Distribution of Respondents That Agreed or Disagreed With the Statement “I Trust the Information That I Heard on the *Sada*,” in Gelan and Warsaj Districts, Afghanistan (Gelan, N=175; Warsaj, N=189).

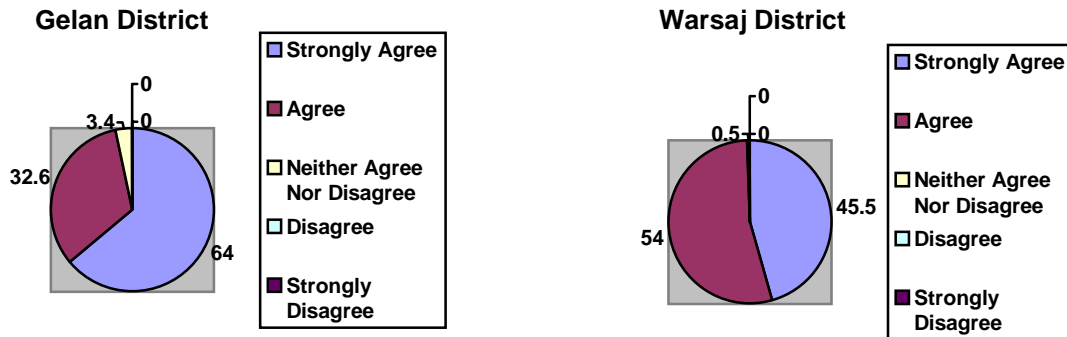


Figure 7. Percentage Distribution of Respondents That Agreed or Disagreed With the Statement “The Programs That I Heard on *Sada* Were Interesting,” in Gelan and Warsaj Districts, Afghanistan (Gelan, N=175; Warsaj, N=189).

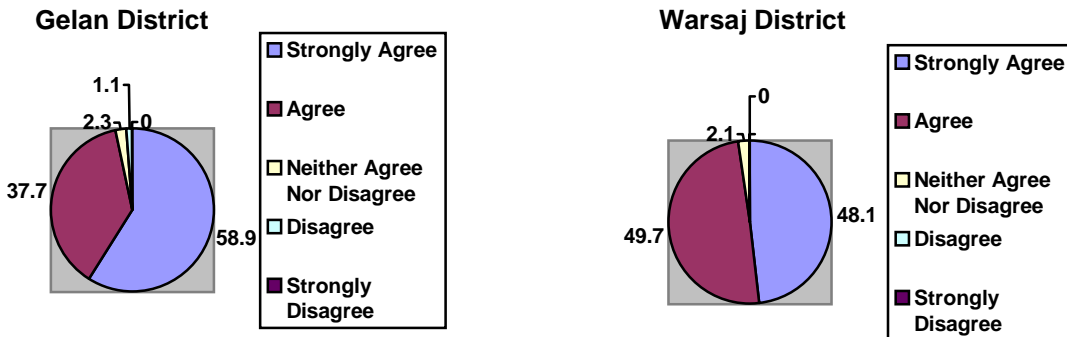


Figure 8. Percentage Distribution of Respondents That Agreed or Disagreed With the Statement “The Programs That I Heard on *Sada* Helped Me to Understand the Importance of the Parliamentary Election,” in Gelan and Warsaj Districts, Afghanistan (Gelan, N=175; Warsaj, N=189).

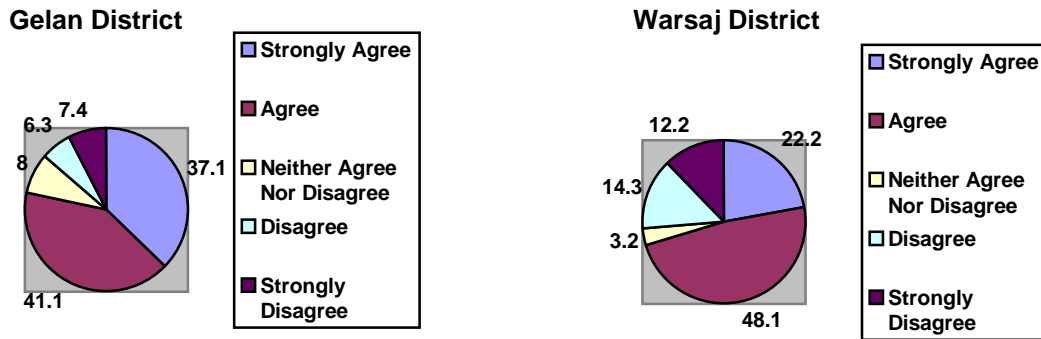


Figure 9. Percentage Distribution of Respondents That Agreed or Disagreed With the Statement "The Language Used in the Sada Was Easy to Understand," in Gelan and Warsaj Districts, Afghanistan (Gelan, N=175; Warsaj, N=189)

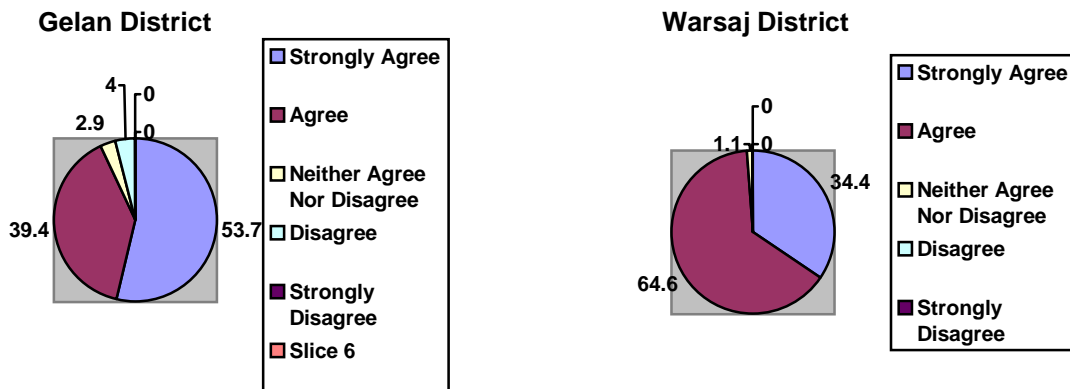


Figure 10. Percentage Distribution of Respondents That Agreed or Disagreed With the Statement "The Programs on Sada Were Entertaining," in Gelan and Warsaj Districts, Afghanistan (Gelan, N=175; Warsaj, N=189).

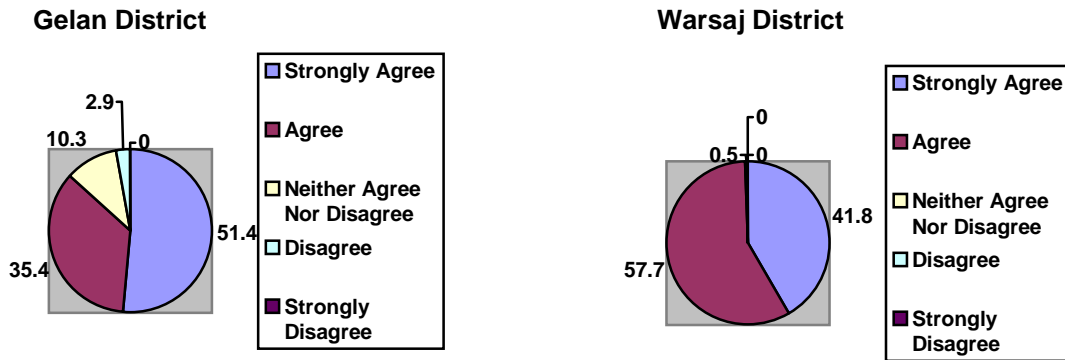


Figure 11. Percentage Distribution of Respondents That Agreed or Disagreed With the Statement “When I Heard the Messages From Local Leaders, I Knew That the *Sada* Content Was Important,” in Gelan and Warsaj Districts, Afghanistan (Gelan, N=175; Warsaj, N=189).

Preference of *Sada* Versus Radio

In Warsaj district, respondents reported that they would prefer to receive information about politics in Afghanistan from the *Sada* (58.7 percent) as opposed to receiving such information from the radio (40.7 percent). In Gelan, slightly more respondents would rather receive political information from the radio (47.4 percent) than from their *Sada* (44.0 percent) (Figure 12).

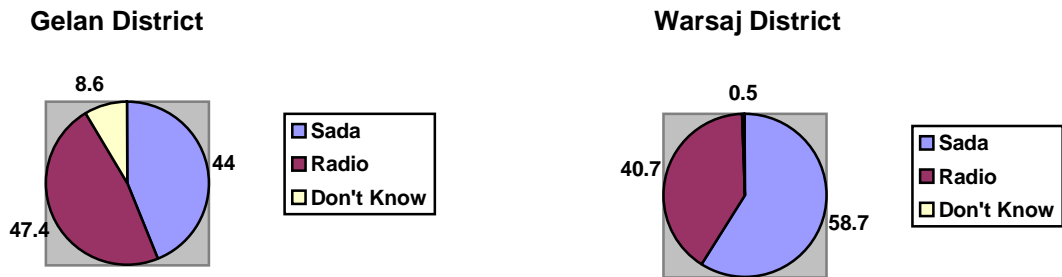


Figure 12. Percentage Distribution of Respondents’ Preference of *Sada* or Radio for Receiving Information About Politics, in Gelan and Warsaj Districts, Afghanistan (Gelan, N=175; Warsaj, N=189).

Sada Technology Assessment

The majority of respondents were in possession of their *Sada* for at least four weeks at the time of the post-election interview (68 percent in Gelan, and 90 percent in Warsaj). Only four individuals in Gelan, and five respondents in Warsaj, reported that their *Sada* was not fully functional (none were examined to confirm defectiveness). The batteries failed in one *Sada* in Gelan, the solar battery charger did not work for two *Sadas* in Warsaj, the buttons did not work on two *Sadas* in Gelan and two *Sadas* in Warsaj, the speakers did not function on one device in Warsaj, and the earbuds were not working for one *Sada* in Gelan.

Some 85 percent of *Sada* recipients in Gelan received training on how to use the *Sada* device, compared to only 71 percent of recipients in Warsaj. Figure 13 shows the percentage distributions for the perceived level of ease or difficulty of use of the *Sada* device. Overall, the majority of respondents in both experimental districts found the *Sada* unit “very easy” or “easy” to operate.

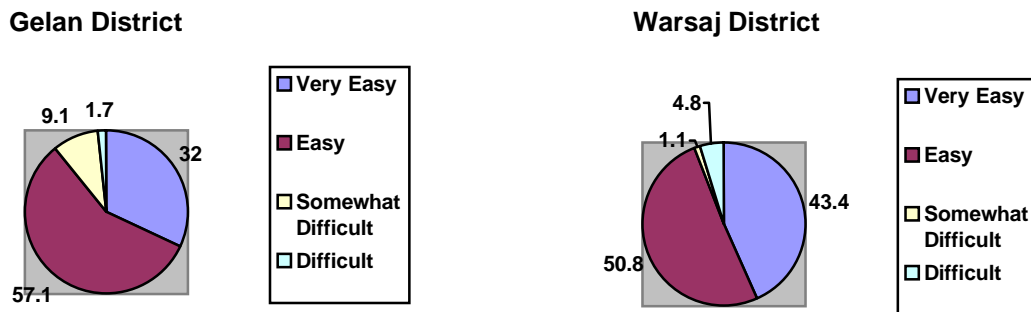


Figure 13. Percentage Distribution of Respondents' Perceived Ease of Use of the *Sada* Device, in Gelan and Warsaj Districts, Afghanistan (Gelan, N=175; Warsaj, N=189).

The length of time that the batteries lasted before having to be recharged (using the solar re-charger) varied between one hour (N=31) and 48 hours (N=3). The mean number of hours of battery use was 8.8 (± 7.1 hours). The number of hours that respondents reported it took to re-charge the batteries using the solar re-charger was approximately 4.4 hours (± 5.8 hours).

Figure 14 shows the frequency of use for the earbuds with the *Sada* device. Respondents in Warsaj used the earbuds more often than listeners in Gelan.

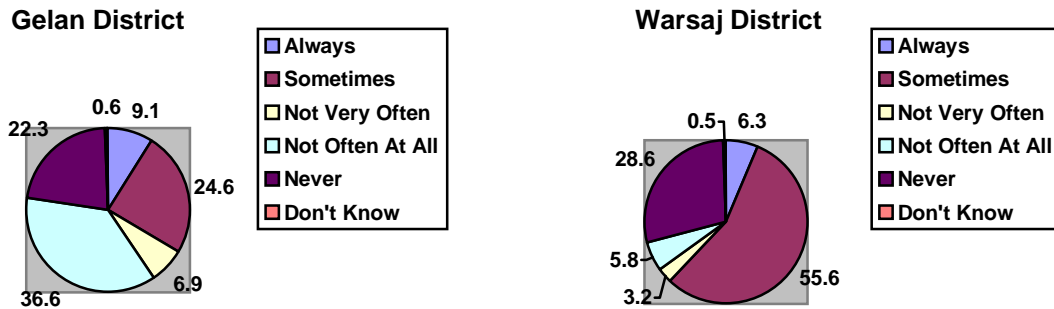


Figure 14. Percentage Distribution of Respondents' Use of Earbuds With the Sada Device, in Gelan and Warsaj Districts, Afghanistan (Gelan, N=175; Warsaj, N=189).

The majority of men (81 percent) and women (81 percent) in Gelan reported liking the color of their *Sada*. Almost all of the men (97 percent) and all of the women (99 percent) in Warsaj said that they liked the color of their *Sada*. When respondents in both districts were asked what color they would prefer for their *Sada*, 37 respondents answered: Black or brown (N=22), red (N=8), white (N=4), blue (N=1), gray (N=1), and pink (N=1).

4. Discussion and Conclusions

The present evaluation study assessed the appropriateness of the *Sada* technology as an educational vehicle in Ghazni and Takhar provinces of Afghanistan.

Technology Assessment

How appropriate was the *Sada* technology as a device for disseminating information in Afghanistan? Our findings suggest that a majority of the *Sada* recipients listened to the entire *Sada* content, usually in group situations, and spread over multiple listening sessions. A fairly high percentage of *Sada* recipients (63 percent in Gelan and 47 percent in Warsaj) reported discussing the *Sada* programs with others. At least 95 percent of the *Sada* recipients in Gelan, and 98 percent in Warsaj, continued listening to the *Sada* after the parliamentary election was over, suggesting the long-term utility of such educational devices.

Almost all of the *Sada* recipients in both Gelan and Warsaj believed that (1) the *Sada* provided correct information, (2) the *Sada* information was trustworthy, (3) the *Sada* content was interesting, and (4) what they heard on *Sada* helped them to understand the importance of the parliamentary elections. Most agreed that the program language was easy to understand, the programs were entertaining,

and audio-taped messages from local leaders in the *Sada* made them believe that the *Sada* content was important.

The *Sada* technology worked well; only one percent of *Sada* users in our experimental districts experienced difficulties with the device, for example, a malfunctioning battery, navigational buttons, or solar charger. A majority of respondents (both men and women) in both experimental districts found the color of *Sada* attractive, and the device easy to operate.

Triangulation with Qualitative Research Findings

Findings from a qualitative study of *Sada* use in five provinces in Afghanistan, suggested that the small media listening device was instrumental in (1) educating women and men about the negative consequences of forced marriages, namely, marrying daughters at too early an age, and especially to older men, (2) promoting discussion about the parliamentary election, and about women's rights, and (3) increasing women's participation in the parliamentary election (Sengupta, Singhal, Shefner-Rogers, 2005; Personal field notes, 2005).

Respondents found the *Sada* both educational and entertaining, and continued to listen to *Sada* programs after September 18th. An in-depth discussion with the research team leaders, suggested that respondents were very enthusiastic about *Sada* and its contents. One of the Altai Consulting Team Leaders received letters from the survey respondents in both the experimental and control districts, asking him to send them (more) *Sadas* (Personal Interview, 2005). Almost all male and female focus group participants asked for new plug-and-play *Sada* chips with educational information on such topics as child development, family planning, Islamic education, and health (disease control/hygiene) (Personal field notes, 2005).

References

Personal Field Notes (2005). Focus group discussions in Parwan province, October 11 and 15, Afghanistan.

Personal Interview (2005). Interview with Altai Consulting Team Leaders Shirhjan and Mohammadulla. October 16^t, Kabul, Afghanistan.

Sengupta, A, Singhal, A, Shefner-Rogers, CL. (2005). *Women's use of Sada in Afghanistan: Dissemination, dialogue, and transformation*. Qualitative report presented to Voice for Humanity, Lexington, Kentucky.

SPSS 13.0 (2004). SPSS Inc., Chicago, IL.

Appendix A: Profile and Photos of the Sada Device

VFH AUDIO PLAYERS

- Designed for Oral Communicators
- Based on DSP technology
- Compresses Speech Data 125X
- Capacity up to 500 hours (428 CD's)
- No Moving Parts
- Multiple Power Options, e.g. solar
- Group or Individual Listening
- No instruction manual required
- 3-tier hyper-speech indexing
- Plug and Play Content
- Cannot be Copied or Modified
- 10x cheaper than equivalent capacity MP3 players, (i.e. cost per hour of play time)



Appendix B:

Profile of Treatment District Survey Respondents

Percentage Distribution for Selected Characteristics of Participants That Received a *Sada* by Survey Wave and Area of Residence in Ghazni and Takhar Provinces, Afghanistan.

Characteristic	Takhar Province			
	Gelan (Experimental)*		Warsaj (Experimental)	
	Wave 1**	Wave 2**	Wave 1	Wave 2
	N (%) N=250	N (%) N=175	N (%) N=250	N (%) N=189
Gender‡				
Female	100 (40.0)	64 (36.6)	123 (49.2)	84 (44.4)
Male	150 (60.0)	111 (63.4)	127 (50.8)	105 (55.6)
Ethnicity				
Pashtun	249 (99.6)	165 (94.3)	0 (0.0)	1 (0.5)
Tajik	1 (0.04)	10 (5.7)	250 (100.0)	187 (98.9)
Uzbek	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.5)
Other (Arab)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Language				
Dari	18 (7.2)	17 (9.7)	249 (99.6)	188 (99.5)
Pashto	232 (92.8)	158 (90.3)	1 (0.04)	1 (0.5)
Uzbek	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Mean age of respondents in years (SD)***	32.1 (12.8)	32.3 (12.3)	30.3 (11.5)	30.5 (11.4)
Marital Status‡				
Single	52 (20.8)	35 (20.0)	74 (29.6)	55 (29.1)
Married	189 (75.6)	135 (77.1)	171 (68.4)	130 (68.8)
Widowed	9 (3.6)	5 (2.9)	5 (2.0)	4 (2.1)
Ever attended school				
Yes	79 (31.6)	67 (38.3)	144 (57.6)	106 (56.1)
No	171 (68.4)	108 (61.7)	106 (42.4)	83 (43.9)
Mean education in years (SD)	8.3 (3.6)	8.3 (3.7)	8.6 (3.2)	8.6 (2.9)
Literacy‡				
Can read/write letter	112 (44.8)	92 (52.6)	143 (57.2)	116 (61.4)
Cannot read/write letter	138 (55.2)	83 (47.4)	107 (42.8)	73 (38.6)
Paid work outside the home‡				
Yes	86 (34.4)	66 (37.7)	146 (58.4)	94 (49.7)
No	164 (65.6)	109 (62.3)	104 (41.6)	95 (50.3)

* Study participants in the experimental districts received a *Sada* unit; study participants in the control districts did not receive a *Sada* unit and were not exposed to *Sada* messages.

** Wave 1 refers to the pre-election survey completed in August, 2005; Wave 2 refers to the post-election survey completed in October, 2005.

*** SD=Standard deviation

Source: Data for Table 1 are from personal interview surveys conducted by Altai Consulting in Kabul, Afghanistan in the provinces of Ghazni and Takhar.

‡ p<.001.