



## Intimate Needs – Public Effects

Assessing methods to elicit delicate topics in development research and practice



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## Introduction, background and objectives

This NCCR N-S Transversal Project Mandate (TPM) “Intimate needs – public effects: assessing methods to elicit delicate topics in development research and practice” builds upon findings from the RP09 thematic node “User driven Sanitation” including the sub-theme “Gender and Sanitation in Developing Countries”. The research focus was on testing a set of methods to elicit information on delicate issues with a special eye on gender-specificities regarding sanitation in the public sphere (described in this report) as well as to contribute to a tool-box on innovative methods for field researchers and practitioners (NCCR deliverables, forthcoming).

We have addressed the problem of obtaining data with regards to sensitive issues - addressing gender and sanitation - in Costa Rica, Uganda and Honduras to allow a cross cutting comparison of the methods’ applicability in different geographical contexts, social backgrounds, age groups and cultures.

The field studies were carried out by JACS EAF in Uganda and by JACS CCA in Costa Rica and Honduras. ICFG assumed the responsibility of project coordination and CDE contributed academic support.

The objective of this project was twofold:

- i) Assessment of the applicability of three different methods to collect sensitive information
- ii) Information gathering on gender specific requirements concerning sanitation

Our test methods were:

- a. a technique from the participatory rural appraisal repertoire “Gender Action Learning System” (GALS)
- b. mobile phone-/computer-based surveys
- c. traditional surveys to be filled in on paper

We addressed, among others, questions on health, hygiene, safety, privacy, accessibility and comfort – all with regards to sanitation. Our interview and survey partners were men and women and adolescents in separate as well as in mixed gender groups.

The three methods in all the three countries were applied in high schools and low-income urban and peri-urban settlements. We developed specific questions considering sensitivities and to avoid making our respondents feel uncomfortable. The respective questionnaires are both integrated into the text or/and attached at the end of this document.

The focus of the research lies on the qualitative comparison of the methods and their applicability: In the section on the evaluation of the methods there will be a participants’ assessment on the applied methods along six defined criteria for participants as well as a summary on the applicability of all testes instruments regarding their qualification in design, application, processing and data analysis from a researchers point of view. Further each methods pros and cons will be highlighted in a nutshell in order to compare with the other applied methods.

The analysis of the results on gender specific requirements in regard to sanitation is preliminary, further work needs to be undertaken to gain a complete picture from the raw data of the respective countries and to allow for cross cutting comparisons in the different geographical contexts, social backgrounds, age groups and cultures.

The here represented report is not about representative data but serves more as an illustration. It is a conglomerate and a synthesis of the outcomes and interpretations of the interdisciplinary research teams from the respective countries. The following people involved are: Prof. Dr. Lily Caballero, Michelle Sosa, Erika Zambrano and Samuel Flores, UNAH, Honduras; Marian Perez and Jacqueline Jiménez, FLACSO, Costa Rica; Prof. Dr. Charles Niwagaba, Evelyn Kyomugisha and Emmanuels Kigenyi, Makerere University, Uganda; Dr. Sabin Bieri, CDE, and Petra Kohler, ICFG, both University of Bern, Switzerland.

**Research topics**

The research topics were always addressed in connection with public sanitary facilities and along the six dimensions health, hygiene, safety, privacy, comfort and accessibility and are the following: use of public sanitary facilities, priorities in the design of public sanitary facilities, management of sanitary needs in public spaces, conditions of public sanitary facilities, limitations in accessibility of sanitary facilities (e.g. for handicapped persons) and their effects (e.g. on work activities), and menstrual hygiene behaviour.

**The six dimensions of research interest**



Figure 1: Dimensions of research interest, GALS Costa Rica, 2012

Six dimensions were chosen as common frame of reference throughout all the three applied methods in the three countries.

The dimensions were defined within and adapted by the interdisciplinary research team of the four attending countries (Figure 1) and are the following:

**Hygiene:** Basic concept of purification, cleanness and personal hygiene.

- All people need to live in clean and healthy environments which have to be maintained
- Cleanness, purification of places or persons
- Habits and practices which favourite health and healthy living
- Illness prevention

**Accessibility:** Grade in which all persons can use an object, visit a location or have access to a service, here sanitation facilities.

- More relevant to people with disabilities (physically challenged), sick, aged persons, pregnant women and young children

**Security:**

- Absence of feeling to be at risk
- Feeling that you are protected against harm or threat
- Trust in something or somebody
- To be able to entry, exit and maintain in a location without being afraid; here referring to sanitary facilities in public areas

**Privacy:** Domain of the personal life which develops into a reserved and confidential area.

- The wish to remain unnoticed or unidentified by the public
- Feeling that a person is alone in a place

**Health:** Absence of illness or disease.

- State of wellbeing of an individual

**Comfort:** Comprehension of all what produces wellbeing and convenience

- Feeling at ease and relaxed with no hardship when using sanitation facilities

Possible combinations of dimensions:

**Hygiene and health:** comprise aspects in relation with the human body, its necessities/requirements, menaces and excretion processes.

**Security and privacy:** cover aspects of the participants' perceptions on protection in relation with public sanitary facilities.

**Accessibility and comfort:** address the facets of the users' perceptions on infrastructural material and the technology of the sanitary facilities

The dimensions were explained to the participants before testing each method in order to clarify on questions and to share the same understanding of the dimensions' meanings and contents.

## Ten criteria to evaluate and compare the methods

Adequate methods and instruments for the investigation into gender-specific sanitation requirements and to provide qualified gender-disaggregated data need to meet a minimum set of requirements. Those were defined as criteria which were developed by an interdisciplinary team<sup>1</sup>, divided into criteria from i) **participants' perspectives** and into such from the ii) **researchers' viewpoints**.

**Six criteria** to evaluate the procedure/method/instrument of mobile phone-/computer-based, paper surveys and GALS from a **participants' perspective**:

- 1) **Inclusiveness**: non-discrimination; integrating of different social groups and participants to express their views; men, women, old, young. Destigmatising; if you don't deal with stigma you can't address discrimination
- 2) **Confidence**: for authentic answers
- 3) **Neutrality**: discuss taboo topics without someone losing his/her reputation
- 4) Social **exchange**: promote mutual exchange and learning and validate personal experience
- 5) **Comfort**: user friendliness of applied method, e.g. was participation enjoyed?
- 6) **Acceptability**: acceptance on theme; can the topics be addressed and are they also relevant for the participants? Acceptance of method; do participants find the method appropriate?

To address and cover all of the above six criteria (1-6) relevant for participants, please consider following questionnaire on method evaluation in the next paragraph.

**Four criteria** to evaluate the methods' applicability from a **researchers' perspective**:

- 7) **Accessibility**: regarding to costs; is the method affordable? E.g. cost effectiveness between mobile phone- and paper survey; 1:1 comparison
- 8) **Viability**: Is the procedure/instrument/method feasible, operable? And to what conditions?
- 9) **Reliability**: steadiness of a measure; is the test result in a reapplied survey under the same conditions stable?
- 10) **Validity**: does the method/instrument measure what it intends to measure?

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<sup>1</sup> NCCR North-South week, Aeschi, Switzerland, March 2010. Present were: Elizabeth Tilley and Christoph Lüthi, Sandec/EAWAG, Marian Perez, FLACSO Costa Rica, Dr. Sabin Bieri and Petra Kohler, University of Berne.

To address and cover the four criteria (7 – 10) relevant for researchers, the process of method selection, testing, analyzing, interpreting and comparison was evaluated. Some of these criteria could only be addressed at the very end of the research. For insight into these results please consider the section “Comparing the methods along the four criteria for researchers”.

## **Questionnaire focusing on method evaluation; participants’ points of view**

To cover the defined criteria for the participants (1 - 6), right after the realization of the surveys (mobile phone-/computer-based and paper surveys) and the participation in GALS, all the respondents were asked to answer individually - in order to enable comparability of evaluation questions in each of the three applied procedure/method/instrument - following questions:

### **Have you been asked on this theme before?**

→ *General question*

a) Yes \_\_\_\_\_

b) No \_\_\_\_\_

### **Did you enjoy the participation in this exercise?**

→ *Addressing mostly criteria 5) comfort and 6) acceptability*

a) Yes \_\_\_\_\_ Why? \_\_\_\_\_

b) No \_\_\_\_\_ Why not? \_\_\_\_\_

### **What did you like most in this exercise?**

→ *Addressing all criteria 1) – 6)*

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### **What did you like least in this exercise?**

→ *Addressing all criteria 1) – 6)*

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**While undertaking the procedure; could you really express what was on your mind?**

→ Addressing mostly criteria 1) inclusiveness, 2) confidence and 3) neutrality

- a) Yes \_\_\_\_\_ Why? \_\_\_\_\_
- b) No \_\_\_\_\_
  - caused pain or shame
  - theme is too private or/and intimate
  - theme is irrelevant
  - theme is too complicated
  - I did not feel welcome to express my view
- c) Other \_\_\_\_\_

**Do you find the procedure/instrument/method allows for authentic answers?**

→ Addressing criteria 2) confidence

- a) Yes \_\_\_\_\_ Why? \_\_\_\_\_
- b) No \_\_\_\_\_ Why not? \_\_\_\_\_

**Could you exchange with and learn from other participants during the procedure?**

→ Addressing criteria 4) social exchange (This question was asked exclusively in the GALS)

- a) Yes \_\_\_\_\_ Why? \_\_\_\_\_
- b) No \_\_\_\_\_ Why not? \_\_\_\_\_

**Was your personal experience validated during the procedure?**

→ Addressing criteria 4) social exchange and 1) inclusiveness

- a) Yes \_\_\_\_\_ Why? \_\_\_\_\_
- b) No \_\_\_\_\_ Why not? \_\_\_\_\_

**Would you leave the procedure the way it is and it is designed?**

→ Addressing mostly 6) acceptability

- a) Yes \_\_\_\_\_ Why? \_\_\_\_\_
- b) No \_\_\_\_\_ Why not? \_\_\_\_\_



## Would you like to participate in future activities in relation to this theme?

→ Addressing mostly 6) acceptability

- a) Yes \_\_\_\_\_ Why? \_\_\_\_\_
- b) No \_\_\_\_\_ Why not? \_\_\_\_\_

## Other comments relating to the held activities/method:

→ Addressing all criteria 1) – 6)

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The corresponding results will find their demonstration in the section “Comparing the methods along the six criteria for participants”.

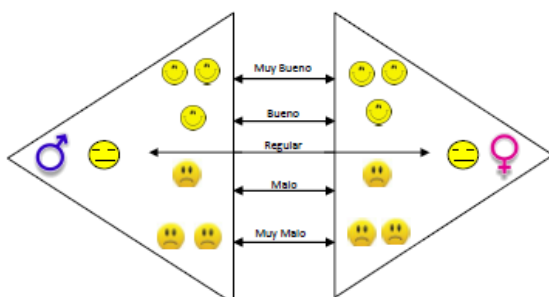
## Methods: Presentation of GALS, mobile phone-/computer surveys and paper surveys

### GALS

“Gender Action Learning System” (GALS) is a focus group discussion method, a technique from the participatory rural appraisal repertoire, – originally used for gender justice in relation to livelihood improvement (Mayoux 2010). It bases upon sex separated focus group discussions, complemented by writing or drawing, and sex mixed presentations and plenary discussions.

Two core elements from GALS were applied: 1. The “Gender diamond” and 2. The “Action trees” and the “Tree of diamond dreams”

#### 1. The “Gender diamond”



„Gender diamond“, Honduras 2012

The purpose of this first step of the exercise is to identify the challenges faced by the participants in connection with their experiences on sanitation issues, integrating a gender perspective.

„Gender Diamond“ in a nutshell:

1. Define topics to be discussed among groups; participants were asked to think and discuss along sanitation in public spaces (in the area where they live in or in regard to their sanitary situation in their schools; e.g. in Costa Rica) along the defined dimensions of health, hygiene/cleanliness, privacy, security, accessibility and comfort.
2. Group work in sex separated groups on half of a “diamond” (one male and one female facilitator for each of the respective group is needed), individuals write notes with their concerns, which then are discussed in the respective (men or women) group.
3. Men and women’s groups come to conclusions on the main issues that they don’t like about the actual state on the sanitation situations they are exposed to and on what they are content with (negotiating process within the group).
4. The cards of both groups are displaced in the respective location (smiley or sad faces varying from very bad to very good) of the halves of the “diamonds” and explained by a representative of the group and discussed in the plenum, which offers the opportunity to clarify on questions and to see the others points and concerns (room for interchange between all the participants). The two halves of the women’s and men’s “diamonds” are merged to a “Gender diamond”.
5. Each participant can afterwards decide on his or her main concerns listed in the Gender diamond - the following procedure will concentrate mostly on the negative aspects experienced in connection with sanitation. Approximately five main challenges - by voting for or by negotiating, depending on the groups preferences - should result from this exercise. These challenges are being used as the basis for the next step – the “Action trees” and the “Tree of diamond dreams”.



GALS; women working on the Gender Diamond, Uganda, 2012.

## 2. The “Action trees” and the “Tree of diamond dreams”

The goal of the exercise with the action trees is to identify the causes of the named problems from the “Gender diamond” and to find possible solutions to address and solve them. The process is similar to the one before.

“Action trees” and “Tree of diamond dreams” in a nutshell:

1. The defined main challenges from the Gender diamond exercise build the trunk of the tree and are used as the basis to refer to and to reflect on.
2. Again sex separated groups are formed and their members work in various steps i) on the roots = causes of the challenges, ii) the branches = possible solutions to address the problems defined before, and iii) potential personal commitments to solving the problems = fruits.<sup>2</sup>
3. The sanitation issues written on cards are assembled together to form women’s and a men’s “action trees”.
4. Presentation and discussion of the trees in the plenum; merging the women’s and men’s action trees to a combined “Tree of diamond dreams” = “mother tree”.
5. The “Tree of diamond dreams” is the final product of the GALS exercise and belongs to the group of participants.
6. The researchers are now challenged in interpreting the results.



„Action tree“, Honduras 2012.



„Tree of diamond dreams“ = „Mother tree“, Uganda 2012.

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<sup>2</sup> For time reasons the fruit exercise was only undertaken in some of the GALS. The way we introduced and applied GALS had primarily the intention to elicit information and not to go into the direction of implementing proposed solutions – although this is a strong element of GALS and is used for community work and development.



„Action trees“, Uganda 2012.

A comprehensive and adapted manual on GALS is in process for Spanish speaking field researchers and practitioners; the same is aimed for English speaking interested professionals (NCCR deliverables, forthcoming).

### **Mobile phone-/computer surveys**

In addition to methods in qualitative data gathering, we wanted to explore on innovative methods, with also quantitative elements, like computer-, mobile phone- or internet based ones (interviewing by e-mails, chat rooms, text messages etc.) to assess the methods appropriateness and to approach certain interest groups by including New Media (e.g. adolescent men or women).

EpiSurveyor<sup>3</sup> – now called Magpi [www.magpi.com](http://www.magpi.com), after a change in name in the beginning of 2013 – is a tool to collect data on computers and mobile phones. Anyone can create an account (the creation of an e-mail address and a password is necessary), design forms, download them to phones, and start collecting data. It is free of costs to a certain limit of data. Medium knowledge of programming is needed for the creation of the question design. The collected data are automatically saved and processed and can be shared with certified members.

EpiSurveyor is programmed and supported by DataDyne’s Kenya team, and is funded entirely by its paying users like the World Bank, USAID, WHO, UNICEF, and International Federation of the Red Cross. It’s being used for interests in health, agriculture, education, conservation, commerce and other sectors with nearly 20,000 users in more than 170 countries worldwide.

The screenshot shows the EpiSurveyor dashboard in a Firefox browser. The main content area features a table of forms and two charts on the right.

Form	Owner	Records	Last Mod	Last Add
00Necesidades_Intimas_hn	sosacelina@yahoo.com	0	13/08/2012	-
COPIA_SEGURIDAD_NO_TOCAR	sosacelina@yahoo.com	0	22/06/2012	sosacelina@yahoo.com
Necesidades_Intimas_cr	sosacelina@yahoo.com	0	22/06/2012	-
Necesidades_Intimas_Efectos_Publicos	sosacelina@yahoo.com	12	04/06/2012	03/06/2012
Necesidades_Intimas_hn	sosacelina@yahoo.com	47	25/07/2012	02/08/2012
PNEP_cr_papel	sosacelina@yahoo.com	0	22/06/2012	-
PNEP_hn_papel	sosacelina@yahoo.com	60	21/08/2012	21/08/2012
Uganda_questionnaire_1207	sosacelina@yahoo.com	19	14/07/2012	13/07/2012
UGANDA_Testing	sosacelina@yahoo.com	3	18/06/2012	12/07/2012
UG_DESIGN_DONT_TOUCH	sosacelina@yahoo.com	0	12/07/2012	-
UG_DESIGN_PAPER_SURVEY_	sosacelina@yahoo.com	0	31/07/2012	-
UG_Paper_Survey_1	sosacelina@yahoo.com	1	31/07/2012	23/08/2012
UG_Paper_survey_2	sosacelina@yahoo.com	3	31/07/2012	23/08/2012

The right-hand side of the dashboard displays two charts for the form 'PNIEP\_hn\_papel'. The top chart, 'Submitted Records', is a bar chart showing the number of records submitted per day in July 2012. The bottom chart, '% that responded "F" to Question "Sexo"', is a bar chart showing the percentage of respondents who answered 'F' to the question 'Sexo' for each day in July 2012.

Survey completion takes place offline, and no network coverage is necessary. The data is not only stored on the platform but also analysed: i. closed questions will automatically be transferred into figures and tables, ii. open questions need further handling and interpretation.

<sup>3</sup> EpiSurveyor is programmed and supported by DataDyne’s Kenya team, and is funded entirely by its paying users like the World Bank, USAID, WHO, UNICEF, and International Federation of the Red Cross. It’s being used for interests in health, agriculture, education, conservation, commerce and other sectors with nearly 20,000 users in more than 170 countries worldwide.

In Costa Rica and Uganda mobile phones were hired and handed out to the students, they had to fill in the answers to our questions, which were stored as a questionnaire in the device. Once connected to a computer with internet connection, the data from device was uploaded to this platform and made ready for interpretation. In Honduras the surveys were undertaken with computers instead of mobile phones.



Application of computer surveys, Honduras 2012.

### ***Paper surveys***

Classic paper surveys were undertaken to test a traditional instrument in contrast to the more innovative ones like mobile phones- and computer surveys. The questionnaire design was content wise the same like the one for mobile phones- and computer surveys in order to allow for a direct comparison between the two methods.



Application of paper surveys, Honduras 2012.

## Partners, sites and settings

**Costa Rica** (FLACSO): peri-urban communities; middle- and low income → 3 GALS (2 communities, 1 high-school), 2 mobile phone based surveys (2 high schools), 2 paper surveys (2 high schools).

**Honduras** (UNAH): urban and peri-urban communities: middle- and low income → 2 GALS (2 communities), 2 computer based surveys (2 high schools), 2 paper surveys (2 high schools).

**Uganda** (Makerere University): urban communities; middle- and low income → 2 GALS (2 communities), 2 mobile phone based surveys (2 high schools), 2 paper surveys (2 high schools).

The conditions under which the different methods were tested vary a bit from country to country:

In Costa Rica 3 GALS were undertaken; 2 community ones and 1 with high school students to find out in a latter step if students tackle and evaluate the GALS instrument in a different way than community members.

In Costa Rica and Uganda mobile phones were hired or bought and handed out to the students, to have them filled in the answers into the mobile phone device whereas in Honduras the surveys with the same questions were undertaken with computers and not with mobile phones because of technological obstacles (renting of mobile phones was not possible) and for security reasons (risky to enter schools in low-income settings with a bunch of valuable technological equipment).

Sample sizes: N for each method application per each of the countries, averages: GALS: 11, mobile phone surveys: 25, paper survey: 25. The total number of N can be calculated from each case multiplied by 2 (2 applications per method) and further multiplied by 3 (applied in 3 countries).

The effective numbers of respondents can be found in the respective countries' reports.

## Testing the three methods

### A) Comparing the methods along the six criteria for participants

### B) Results on sanitation issues; general and gender specificities

The first section is summarizing the outcomes of the participants' evaluation on the methods' along the criteria inclusiveness, confidence, neutrality, social exchange, comfort and accessibility. The respective second paragraph illustrates the results on general sanitation issues and on gender specificities.

## **GALS**

### **A) Results on GALS as method/instrument**

Highlighted positive and evident aspects of the GALS as method and instrument:

- Offers space and option to share and exchange opinions on themes of communal interest
- Permits the involvement of a variety of persons with different skills, personalities, professions and knowledge and can include young, elderly and disabled persons.
- Awareness raising on existing needs and on problem solving; participants get sensitised by the request to reflect on a given theme and in a further step are motivated to formulate possible solutions to solving the problems
- Educative elements; through exchange with and learning from other participants
- Offers for the inclusion of positions of women and men alike; as strong elements the sex separated work groups and the latter reunion and discussion in the plenum

**Comfort, acceptability:** The overall felt enjoyment and comfort with the exercise shows that the theme itself as well as the conducted method was highly accepted. The participants' interests on the topics stand in close connection to their everyday life relevance.

**Most liked** in the exercise were the group work and the participation of community members. Another positive aspect is that this procedure could help in awareness raising on existing sanitary facility needs. Some of the participants liked the exercise with the action tree best, as it asks for possible and concrete solutions to address present challenges.

Sharing ideas among all members of the groups and speaking out loud ones ideas was much appreciated and point to **inclusiveness, confidence** and **neutrality** of the method. In Uganda especially women felt confident because of the sex separate group work at certain stages of the procedure.

The method allows for **social exchange** as well as for **inclusiveness**. This was realized when people from different backgrounds came together to **exchange with** and **learn from other participants**.

The method shows **high acceptability** among the respondents. The majority would leave the instrument the way it is designed. Many participants found the method very educative. Hence its simplicity the procedure was easily understandable.

All respondents would like to **participate again in similar future projects**, which also points to a **high acceptability** of the method.

**Disliked, challenges:** For some participants the time aspect was critical. One GALS takes around six hours and it can be challenging to find participants who are willing and able to join for almost one working day. In Uganda for example, in one of the workshops in a market area the participants demanded for money to compensate for their time spent in the GALS, since they would otherwise have been selling their items in the market. Furthermore the



planning and scheduling of workshops to be held in difficult settings (e.g. street market vendors in Honduras) did not allow in every case for the target groups to actually participate.

### ***Conclusions on GALS as a method/instrument***

It has been shown that GALS is a striking method when it comes to the **identification of topics, which are unusual, sensitive or taboo**. The evaluation through the participants shows that GALS **allows for inclusiveness, confidence, neutrality and social exchange**. Further the participants find themselves **very comfortable** with the instrument pointing to its **high acceptability**. The educative character - sharing with and learning from others -, as well as the reference to the participants everyday life experiences, which raises the interests on the topics, seem to be the main motivators for a serious and lively participation, having a stake in leading to solid, good quality results.

The required knowledge on the handling of this instrument is of another type than for paper- and mobile-/computer -surveys; moderation and group guiding skills are here needed. GALS require more time to be developed and carried out and can reach less participants at once than the other two methods.

Advantageous is, that else than the other two methods, it can capture also the views of illiterate persons, as it allows expressions of other kind of type than writing (drawing symbols, discussions).

## **B) Results GALS on sanitation issues**

General:

- Lack of water, soap and light
- Unhygienic conditions (stench, faeces, menstrual hygiene material)
- Sharing of one toilet by both sexes (and sharing young and old as well as with disabled persons)
- Health related issues

It's not very surprising to find those topics high in the rating of what a bad sanitary facility "offers", mentioned by women and men alike. But the interesting things come out when asked about the causes for these unpleasant conditions: e.g. abortion and disposal of dead foetus as a problem in regard to hygiene/cleanliness in toilet facilities slum Kampala. A GALS in Costa Rica discovered that the lack of light in some public toilets led to the fear that children using the facility could be abused. Although the problems mentioned are tough, even shocking, they were being discussed openly and even recognized as being social problems of the respective community which need to be addressed and solved. Of course with this small sample numbers there is the problem of a slim database and research basing on larger datasets is needed.

## **Gender specificities**

Although men and women indicated that they face similar challenges with sanitation - health related issues are dominant - yet there are some gender differences:

Men were much more concerned with the issues of menstrual blood on the floor from poor pad disposal, and the fact that women get Candida (fungal infection) from dirty toilets which in the end affects them as well. They were also concerned about the **children's health risks** since they share the facilities with them.

The women's concerns in connection with privacy are following: women need (lockable) doors and light to feel safe. In Kampala, as an illustration, some were worried about the lack of doors and roofs or cracks in the roofs which is dangerous for them and their children. In regard to health aspects; many women feared to get contracted with vaginal infections which could be transmitted to their husbands. Respective to comfort some women wish to have something to hang their bags when using the toilet.

Gender specific:

- Men; concerned about improper disposal of menstrual hygiene material, women's health and children's safety
- Women; affected by privacy, health, safety and comfort

## ***Computer-/mobile phone surveys***

### **A) Results on computer-/mobile phone surveys as method/instrument**

Highlighted positive and evident aspects of computer-/mobile phone surveys as method and instrument:

- Educative and innovative elements; new topic and never experienced method before
- Possibility of expressing one's opinion in an anonymous, private, secret and fun way
- No influence by the interrogator
- Technology is attractive to adolescents; popularity of New Media
- Design of questionnaire and shortness of questions are appreciated

**Comfort, acceptability:** Participation was enjoyed by almost all respondents, feeling comfortable with the exercise.

**Most liked:** Notable are the positive comments on the technology aspects of this method. The mobile phone itself is very popular and the innovative character of the instrument is much liked.

**Express what was on one's mind, inclusiveness, confidence and neutrality** of the method: The majority of the participants felt that they could express what was on their minds nevertheless some individuals mentioned that they found the topics too private, intimate or

even humiliating. Others found the instrument a fun way to be asked questions. The secrecy in the exercise was much appreciated.

**Authentic answers, inclusiveness, confidence, neutrality:** The majority stated that the method and procedure allow for authentic answers as there is no interrogator who can influence.

**Personal experience validated, inclusiveness:** Almost all respondents found that their personal opinions on the topic are of importance because personal experiences were addressed. Although the space for social exchange was not provided, as the questionnaire was supposed to be answered individually, it seems like many students exchanged with each other, the research team and the teachers after the application of the method.

The majority of the respondent would **leave the instrument the way it is**, emphasising on the clear questions. Some proposed to shorten the questionnaire.

**Participation in future activities, acceptability:** The willingness to participate in future exercises is very high among the participants because they see the exercise as productive, educative and also helpful in keeping their communities clean. Lack of time was an argument from some who do not wish to participate again.

**Disliked, challenges:** Some respondents felt uncomfortable with certain questions which they found too intimate and some perceived the questionnaire as lasting too long. In a few cases the internet connection failed which complicated the procedure.

### ***Conclusions computer-/mobile phone surveys as method/instrument***

The above results on the students' evaluation on computer-/mobile phone surveys show that the method allows for inclusiveness, confidence and neutrality. The overall approval to leave the design and content of the instrument that way they are stands in positive connection to experienced comfort and to acceptability. Social exchange was not addresses per purpose, as the questionnaire was supposed to be answered individually. Anonymity is hence a core element of the instrument: The possibility of expressing one's opinion in an anonymous, secret, private way reduces social pressure and could be **a promoter for authentic answers**, especially because there is no interrogator who can influence. Additional motivators for serious participation are the fun and innovative character of the technology (including New Media). And again, the topics importance for their quotidian life seems to be very motivating for the students to deliver valid data as well as to think about future ideas for their communities.

### **B) Results computer-/mobile phone surveys on sanitation issues**

In general very similar topics of main concerns like in the GALS were mentioned. Still there are some gender differences:

#### **Gender specificities**

Female respondents in Uganda added to the fact that public toilets are always dirty, that they always fear to get contracted with diseases, especially with Candida. Male students on the other hand were pointing out that they would include pad disposal buckets, meaning that disposed menstrual hygiene pads in the toilet bother them a lot.

Male students showed a high interest in the constructing and location aspects of the toilets: where they are accessible by the people, a main problem is that toilets in public spaces are often used by too many people, so the construction of more toilets is recommended. The toilet unit itself should be provided with a “good squat hole”, doors, windows, painted walls, light and proper ventilation.

Women on the other hand were more concerned with the cleanliness of the toilet facility and related dimensions like health concerns. For safety and privacy reasons lockable doors are important and they would include in their sanitation facility things like air freshener, liquid soap, sinks, water and toilet paper.

Gender specific:

- Men; more concerned with construction aspects of toilets and location, accessibility, and quantity
- Women; more concerned about lacking cleanness (hygiene and health concerns), safety and privacy

## ***Paper surveys***

### **A) Results on paper surveys as method/instrument**

Highlighted positive and evident aspects of paper surveys as method and instrument:

- Traditionality; not a fancy instrument but appreciated as being well-known
- Design of questionnaire and directness of questions are appreciated
- Inspiration by the answering options in some questions

**Comfort, acceptability:** All participants indicated that they enjoyed participation in the exercise; the reasons given were more or less the same as for the other methods. Further mentioned was that to express what one truly thinks about the conditions of sanitary facilities was important and permitted.

**Most liked in the exercise:** There is not much difference from the answers on the computer-/phone-surveys except for that this instrument is not said to be innovative. The design and directness of the questions were appreciated.

**Express what was on one’s mind, inclusiveness, confidence and neutrality of the method:** All participants indicated that they managed to express themselves freely, independently and without shame.

**Authentic answers, inclusiveness, confidence and neutrality:** The responses were very similar to the computer-/phone survey ones since the participants were emphasising that a

person can answer the questions individually, that they were not forced and that they were answering what they understood.

**Personal experience validated, social exchange, inclusiveness:** The same arguments were stated here as for the two other methods.

**Leave the procedure the way it is, acceptability:** As in the computer-/phone surveys, the majority of the respondent would leave the instrument the way it is designed. In the formulation of the advantages and suggestions on the computer survey the answers there are more differentiated than the ones in the paper survey.

**Participation in future activities, acceptability:** The majority of the respondents expressed desire and willingness to participate in future activities, also more focusing on the topic than on the method itself. To share knowledge with others is of high importance. The exercise is perceived as educative and some wished the research time to come back to their schools for educative programs. Some do not wish to participate again because of lack of time.

**Further comments on the method:** The additional comments on the method were fewer than in the other two methods and not new. Some respondents found the method interesting as they were inspired by the answering options in some questions.

**Disliked:** Again, the questionnaire was perceived by several respondents as too long. And some felt uncomfortable by the private and intimate character of certain questions.

### ***Conclusions on paper surveys as method/instrument***

Although not being a fancy instrument, participants focused more on the topic than on the method itself, paper surveys seem to work reliable and are accepted by the participants if they feel motivated to fill in the questionnaire in a serious way. Participants felt comfortable with the instrument and the content, could manage to express themselves freely, independently and without shame, indicating that the method allows for inclusiveness, confidence and neutrality - as the other two methods.

Apparently also in the paper survey participants find it easy to express their true opinions; anonymity plays also a core role in this instrument. Furthermore the everyday reference and the educative elements can be seen as additional motivator to gaining authentic answers.

## **B) Results on paper surveys on sanitation issues**

Both female and male students had similar answers to particular questions. Both sexes rotate around aspects of general cleanliness, hygiene, health (getting infections) and comfort and the general feeling that toilets in public spaces are often used by too many people. In regard to accessibility, in e.g. Uganda both sexes shared the idea that there are some physically challenged people in their schools who have no special provision of a facility.

Students there expressed their concern about how such people with disabilities should be treated and not discriminated, as they depend on people helping them accessing the toilet.

### **Gender specificities**

Female students in Uganda are concerned with aspects of cleanliness, privacy and safety whereas male students are more occupied with the facilities' construction and toilet quantities (very similar to the outcomes from the mobile phone-/computer surveys). Asked on what else a toilet is being used for – apart from urination and defecation – female participants indicated that they use a facility to change their menstrual hygiene material (the majority stated to exclusively use of the toilet in their home during menstruation) and to make up while male students are busy with washing themselves and read.

### ***Conclusions on the three methods from a participants' point of view***

Common for all the three methods is that they allow for inclusiveness, confidence, neutrality, social exchange (especially for GALS, fostering interchange and discussions), and comfort. The instruments themselves as well as the topics around sanitation are generally well accepted among the participants.

One of the core elements is the **importance of the reference to everyday life**. If people can connect discussed topics with their lives and are asked to tell about their personal daily experiences, needs, concerns and possible solutions to address the problems, the motivation to participate and to deliver good quality answers is high.

There is awareness raising on existing sanitary facility needs and on problem solving; participants get sensitised by the request to reflect on a given theme and in a further step are motivated to formulate possible solutions to solving the problems.

**To be allowed and able to express freely what is on one's mind**, the educative character, the sharing with others and the liked question design - these are all further positive and evident aspects of all the three methods. Regardless of the instrument applied: Some few participants found the topic inappropriate and the questions too intimate.

**Applying for GALS exclusively** is that most liked are the aspects of community participation, the exercises on the action tree, social exchange and inclusiveness of participants with various backgrounds. The interest in participating again for a similar future exercise was stated here more empathic than in the evaluation section from the other two other methods.

**Applying for computer-/phone-survey exclusively:** The phone device itself and the, innovative character of the instrument are very popular amongst the adolescents. Provided anonymity, leading to an assessment of the instrument as being confident, and fun seem to be the main motivators for emitting authentic answers. Some participants were stimulated to think about future ideas for their community. One weak point is that internet connection failures can hinder data entering, -collection and -analysing.

**Applying for computer-/phone-survey and paper surveys:** The question design, directness of the questions and the individual answering system were much appreciated in both methods alike. The positive answers on **inclusiveness, confidence and neutrality of the method** show that authentic answers can also be gained via paper survey. But the duration to fill in the questionnaires was perceived by some participants as lasting too long.

### ***Conclusions on gender specificities from the three methods***

Whatever method was applied in order to find out on gender specific concerns and needs in regard to sanitation, the results look outstandingly alike. Be it for GALS, computer-/mobile phone- or paper surveys, the gender specific findings are more or less the same and can be summarized and stated as following: Women are more concerned about and affected by aspects of privacy, health, safety and some by comfort issues. Men, apart from the disgust on improper disposal of menstrual hygiene material by women, are more concerned with construction aspects of toilets and their locations, their accessibility and quantity of toilets in connection with the number of their users.

### **Comparing the methods along the four criteria for researchers**

A matrix in regard to each of the methods practicability, qualification in design, application, processing and data analysis along the four criteria for researchers - accessibility, viability, reliability and validity - was applied. A combination of the three countries outcomes is presented in the following.

<b>Method</b>	<b>Design</b>	<b>Application</b>	<b>Processing</b>	<b>Analysis</b>
<b>GALS</b> Accessibility Viability Reliability Validity				
<b>Phone survey</b> Accessibility Viability Reliability Validity				
<b>Paper survey</b> Accessibility Viability Reliability Validity				

## **Summary on the outcomes on the methods evaluation along design, application, processing and data analysis**

The focus lies here on first, what has been found as being common for all the three evaluated methods and second stresses on what applies for both, the mobile phone/computer- and the paper surveys.

### ***Applies for all the three methods:***

In general: the construction of the instruments, the application of the methods and the analysis of the data require a qualified team.

### **Design**

Time is needed to create the questions, time must be scheduled to link with leaders and authorities of communities to search for participants and to gain access to, one must count on contacts (e.g. in schools, communities), on the capacities of the staff/workforce on the research methods (methods must be known in detail) and on the particular theme, the instrument must be designed in a language that is understandable to the addressed participants. The local, thematic and contextual adaptations are necessary before application.

### **Application**

The logistic and requests to the participants (preparation work) is complex (e.g. to contact school directors to get permission and the professors to organize classes for the procedure). Accordant to the criteria of selection (e.g. sex, age, socio-economic background), an inventory of organizations, groups, classes etc. is needed in order to check if they conform definitions and selected criteria. The participants disposability must be assured via communication with the respective responsible persons (e.g. head teacher). Participants' readiness to participate and interest in the exercise determines the quality of received responses and is a key factor in the success of the exercise. The same briefed crew should undertake all the data application as to assure valid information. For the facilitators it is indispensable to work in teams allowing technical support and facilitating a proper processing.

### **Processing**

The processing of the open questions requires the creation of categories in order to classify the answers. The information needs to be systemized: first of all, categories are defined and created, then the information is classified along these categories.

### **Data analysis**

It depends on the ability of the workforce to do the interpretation and classification of the data. The data analysis requires the same investment and efforts as for the paper- and the mobile phone-survey. The data analysis requires quite time because a detailed reading of the answers is needed and a systematization in the interpretation of qualitative data (the



answers to the open questions). The designs of the methods generates pre-structured information, the assessed data can be analyzed by a re-classification conforming to the dimensions defined in the team.

***Applies for mobile phone/computer and paper- surveys:***

**Processing**

The reprocessing of the data is time consuming, because all the information needs to be transcribed into the EpiSurveyor platform. The EpiSurveyor program analysis the closed question automatically and transforms the data automatically into graphs and tables. With the filled questionnaires on the mobile phones the upload occurs automatically - as soon the phone is connected to the respective EpiSurveyor data platform. The same takes place with the data filled in on computers.

With the paper survey an intermediate step of typing the answers to the platform is necessary. The processing of the open questions requires the creation of categories in order to classify the answers. The tool for the processing of the data is not very efficient, the open answers are not reflected in the outcome of the platform and the multiple choice answers are separated in bars and not in colons, implicating to transmit the data to other calculation programs (e.g. SPSS or Excel). The data gathered are immediately saved and sent to the server and can be easily accessed.

**Data analysis**

The data analysis requires the same investments and efforts as for the paper survey. The interpretation of the results costs time but no expenses need to be spent on an analysis software. The reports generated by the platform does not allow for a direct reading of the answers from the open questions; it is included in the table, but needs further edition and interpretation, additional instruments and techniques are needed in order to facilitate the analysis of data.

## Evaluation on methods from a researchers view point in a nutshell

Stressing on some peculiarities, positive and negative aspects of each of the methods:

Method	Peculiarities	Pros	Cons
<b>GALS</b>	<p><b>Inclusiveness;</b> involvement of a variety of persons with different skills, personalities, professions and knowledge - even person who cannot read nor write</p> <p><b>Gender sensitivity;</b> particularly due to the gender separate group works and the following gender mixed plenary discussions</p> <p><b>Expenditure of time;</b> Time needed for the conduction of one workshop: 4.5 to 6 hours</p> <p><b>Expenses;</b> Average costs for the conduction of one GALS (data from Costa Rica, in USD): Material: 80.-, Snacks and refreshments: 60.-, Transport: 40.-. In total around 180.- for one GALS</p>	<p>Gender sensitivity</p> <p>Not that expensive; to be considered material, provision of snacks, possible transportation of participants</p>	<p>Long duration (up to 6 hours)</p> <p>Data of the outcomes need further treatment; interpretation of data is time consuming</p>
<b>Mobile phone/ computer surveys</b>	<p><b>Anonymity;</b> no influence by interrogator</p> <p><b>Innovative character;</b> including New Media</p> <p><b>Expenditure of time;</b> Average time for participants to fill in the questionnaire: around 45 minutes for one computer survey</p>	<p>Anonymity</p> <p>Innovative character</p> <p>No costs for the program</p> <p>No transcription efforts</p> <p>No misinterpretation of hand writing</p>	<p>Exclusion of persons who are illiterate or unfamiliar with mobile phones or computers</p> <p>Technological limitations; access to devices, failure in internet connection</p>

	<p><b>Expenses;</b> Average costs for the conduction of all mobile phone surveys (data from Costa Rica, in USD): Material: 10 phones à 100.- were bought; a total of around 1'000.- for all mobile phone surveys. No expenses for software program and access to EpiSurveyor but possible costs for transport and provision of refreshment</p>	<p>Helps in avoiding the use of paper (-questionnaires) Huge data sets can be recorded Storing, interpretation, and sharing of data sets Very suitable for the application of short questionnaires with closed and multiple questions, or/and specifications on the questions Answers to closed questions are analyzed automatically</p>	<p>High in costs; buying or renting of devices Answers to open questions need further treatment for interpretation</p>
<b>Paper surveys</b>	<p><b>Traditionality;</b> not a fancy instrument but appreciated as being well-known <b>Expenditure of time;</b> Average time for participants to fill in the questionnaire: around 40 minutes for one paper survey and another 45 minutes on each questionnaire for the transcription to the EpiSurveyor platform <b>Expenses;</b> Material: paper and printing costs around 0.10 USD per sheet; 1.- USD per questionnaire (10 pages), multiplied by number of respondents. No expenses for software program and access to EpiSurveyor but possible costs for transport and provision of refreshment</p>	<p>Low in costs; expenditures only for material (hardcopies) Hard copies of the questionnaire are always available for reference</p>	<p>Exclusion of persons who are illiterate Possible misinterpretation of hand writing It is possible that some questions may remain unanswered Transcription efforts needed Answers to open and closed questions need further treatment for interpretation</p>

## Conclusions and outlooks on tested methods

The conclusions on the methods along the four criteria for researchers show that GALS, computer-/mobile phone- and paper surveys are very promising in fulfilling the criteria accessibility, viability, reliability and validity, if described conditions attract interests and find implementation.

As shown before, all the three methods allow for covering relevant criteria for participants; inclusiveness, confidence, neutrality, social exchange (especially GALS; fostering interchange and discussions), and comfort. The instruments themselves as well as the topics around sanitation are generally well accepted among the participants. Achieving all these criteria seems to foster authentic answers from respondents.

A core element for the motivation to participate and to deliver good quality answers is the reference to everyday life aspects of the respondents. To be allowed and able to express freely what is on one's mind, the educative character, the sharing with others and the liked question design - these are all further positive and evident aspects of all the three methods. A further positive outcome of the conducted exercises is the growing awareness raising on existing sanitary facility needs and on problem solving of elicited challenges.

There is no thing such as the best or the most appropriate method amongst the tested ones. Bearing in mind the differences between the instruments, each of the method for itself has its own strengths and shows best performance in a certain field of application. But especially GALS and computer-/mobile phone surveys have shown to be very powerful in addressing and answering delicate topics. Nevertheless very similar and concrete (gender) specific findings in regard to sanitation concerns and -needs emerged from all of the applied instruments, indicating that either the selected methods are most appropriate in eliciting sensitive data or/and that it is not so delicate for women and men to talk about intimate issues like assumed at the beginning of the research.

Depending on the research interest, context, (pre)condition, disposability of economic and human resources, and in due consideration of described pros and cons, each of the presented method or/and method combinations can be practically applied for any experimental field from development research and practice. Nonetheless more research would be needed to broaden the spectrum on intimate topics as well as on appropriate methods for their recording.

## **Annexes**

- Questionnaires in English and Spanish

## **References**

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