

Participatory Development Projects in The Andes — Looking for Empowerment with Q-Methodology

Script underlying the presentation of the Q-Method Exercise presented at PRGA Impact Assessment Workshop, October 19-21, 2005, CIMMYT Headquarters, Mexico

by

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Abstract

This is about the first steps in a study on poverty alleviation and the question whether participatory interventions make a significant contribution to the empowerment of poor Andean farmers. Participatory methods of intervention have been applied now for many years in many development projects, based on the philosophy that development will not be sustainable if the “end-users” of so called “beneficiaries” are not appropriately involved and participating in the projects. The process of active participation is supposed to empower the people involved and improve their personal development which at the same time is often considered to be as important for poverty alleviation as a good economic return of a development project.

Q-Methodology is used in order to achieve better insight into the subjective nature of this famous factor “empowerment”, which is considered important even by the World Bank now. (Narayan D., 2002) The subjective reality of a person is a functional reality, it is often much more functional than the external “objective” reality, because it is what people perceive and what makes up their life. With Q-Methodology people can be grouped into “factors” (groups of people) with different functional realities, with different perceptions of “reality”, with different reactions within certain situations. The thesis is that if people get “empowered” by an intervention of a project, at least their inner, subjective reality is supposed to change, even if their external reality might not change substantially yet. Therefore people in several different places in the Peruvian Andes are assessed with Q-Methodology before and after intervention of two different types of projects and changes shall be tracked. At this stage there only exist the data “before-intervention”, the interviews “after-intervention” will take place next. The projects mentioned are FAO Farmer Field Schools near Huancayo, central part of Peru and the Rural Sanitation Program SANBASUR near Cusco, more in the South of Peru. In Huancayo the study includes 88 persons, 51 project participants and 37 test persons (non participants); in Cusco the study is including 77 project participants and 77 non-participants. First analyses of the baseline data are on the way.

Introduction

In the recent past, but especially in the last decade, Development Organizations got convinced that projects have to be carried out in a participatory way. From a humanistic point of view, this does not even need a justification, as well as very few persons ask to justify that societies shall be organized in a democratic way. "...in examining the role of human rights in development, we have to take note of the constitutive as well as the instrumental importance of civil rights and political freedom" (Sen Amartya, 1999). In that sense participatory approaches for any kind of interventions would already be justified through their constitutive importance, no further justification should be needed.

Nevertheless, in order to defend the participatory interventions to donor agencies and development economists, there is still a need to prove the instrumental importance of the participation, too. Participation for them is not good enough on its own as a constitutive value. It must be an instrument to reach the goal of poverty alleviation and this still lacks to be proved scientifically in most cases. Actually there are two general hypotheses that must be accepted or refused in order to get a satisfactory answer.

- 1) Participatory interventions empower people.
- 2) Empowerment gets people out of poverty.

These two hypotheses are the base of a dissertation thesis and at that state of the work I am principally working out the question whether participatory interventions do contribute to empowerment or not. This research question is submitted to the investigation with Q-Methodology which will be presented at this workshop.

Terms

Several terms used in the ongoing work are based on very controversial definitions like poverty, wellbeing, empowerment, participatory development etc. Therefore some explanations might be needed:

Poverty

Poverty shall not be understood only as a very low state of people's income or assets or energy intake respectively protein intake. These indicators are often not comparable and do not describe the complex dimensions of the problem. Poverty shall be understood instead as the opposite of well-being in as many dimensions as possible, whereas I strongly rely on Amartya Sen's approach of development/underdevelopment based on the expansion or reduction of capabilities and freedoms. On the other hand I emphasize specially the individual, subjective perspective of feeling poor or non-poor, which is most real but generally is not included in important assessments of living conditions because this (subjective) reality is not easy to analyze quantitatively.

Well-being

Well-being as an opposite of living in poverty has got many dimensions and generally means as few as possible restrictions in freedoms and capabilities that make an individual suffer. There shall be considered the physical conditions that allow the individual to survive at short term (like enough food and water, a place to sleep/live, protection from cold, heat, aggressive environment etc.) as well as necessities that allow survival in a longer term, like solutions for health problems, possibilities to socialize, to work, to get education etc.

Participation (participatory development, participatory research)

Participation should be as self-explaining as democracy is and has probably got as many interpretations as democracy has and this is politically highly relevant. There has been a

demand for participation of “the poor” by many grass root organizations as an answer to the general politics of donor agencies (representing the rich, colonizing, industrialized countries) treating “the poor” like objects of projects or target population and beneficiaries.

This demand for participation was based on a fundamentally different approach to the mainstream development approach. It does not classify people and entire populations into beneficiaries or recipients of charities and funds on one side and donors and developers on the other side but is based on the conviction that all human beings (individuals and groups, ethnics) must get the right to participate in decisions and above all to decide on their own destiny, on their “development”. As this did not fit in most major state agencies politics first, but could intellectually not be ignored any more after a certain time, mainstream developers did what typically happens with political challenges: they use the same term and give it different interpretations. Nowadays almost all development projects try to use a “participatory approach” for the sake of political correctness. But in very few cases “development initiatives” are initiated and decided by the “target population” in a participative process. Very often the participation is limited to the participant’s opinions and contributions asked concerning an already planned or introduced project. And even starting there, participation can still be understood and implemented in highly different degrees, shortly resumed all in between consultative, collaborative and collegial (Conroy, C. et al. 1997)

Empowerment

As most will agree, empowerment is also a heavily overloaded term; everybody uses its own definition. Again I will take the notion in the sens as Amartya Sen is taking Marx’s notion of “replacing the domination of circumstances and chance by the domination of individuals over chance and circumstances.” (Sen A., 1990) which seems to be quite comprehensive. But empowerment in that sense obviously is not easy to assess. In most cases project leaders will show in their evaluations that people have been “empowered” by proofing participants knowledge, degree of application of learning contents, organizational changes, maybe they show how many participants got a job after a respective education, etc. But these results concerning empowerment do not (or in few cases) refer to the term empowerment in the sense of “replacing the domination of circumstances and chance by the domination of individuals over chance and circumstances”. This research wants to go beyond, we shall see, whether there are sustainable changes inside people’s realities, do they feel different, are they different after a so-called empowerment process?

Q-Methodology

As mentioned before, the empowerment assessment of projects or programs often concentrates on the change of opportunities that result from the intervention (employability, better education, knowledge about proper rights, decision processes etc) These opportunities may indeed alter a person’s potential reality, but they are not “empowering” unless they enter into that person’s actual reality. (adapted from Narayan D., 2002 and Brown S., 2003) If we want to know about empowerment of (poor) people in the sense of a change in their actual, inner and functional reality, we need a method to assess this reality and eventual changes of this reality. Q-Methodology serves as a supplement to the strategies that emphasize the material world outside the individual. Q-Methodology allows individuals to express themselves with a minimum involvement from externally imposed or ostensibly derived meanings. It takes the subjective judgements and considerations of individuals as hard facts and at the same time the data gathered are subject to advanced quantitative analysis (factor analysis), whereas the variables (people) are not grouped based on objective (socio-economic, biometric, etc.) similarities but based on their subjective perceptions, their vision of the world.

The origins of Q go back to William Stephenson, a physicist (Ph.D. 1926, University of Durham) and psychologist (Ph.D. 1929, University of London), who served as the last assistant to Charles Spearman, the inventor of factor analysis. Spearman once referred to

his *protégé* as the most creative statistician in psychology, but from virtually the moment of its inception, the broader considerations of Q as a methodology were destined to be controversial and to be shunned by most of academic psychology. Today, Q methodology is being widely adopted in the social sciences, but for the most part is little remembered in psychology itself, save (in the United States) for the technical procedure of Q sorting. Only recently has there been evidence that a younger generation of psychologists is rediscovering Q methodology and becoming acquainted with the vision which William Stephenson promoted for more than a half century. (Brown S. 2005)

Q-technique

The technical steps of doing a Q-Study are the following: First there must be gathered as much material as possible describing the problem or subject treated (normally statements, slogans, but can be stories, songs, pictures, comics, etc.) in order to get a broad and most comprehensive description of all facets of a question. This is the **Q-Concourse**, something like the universe of the theme to start working with. It refers to the volume of subjective communicability on a topic like “living with eating disorders”, “Gulf War”, “concepts of adventure” or “living in poverty” etc. Concourse (in Latin “concursum”) means running together. By the way, concourses are not restricted to words, but may include or consist of paintings, pictures, music etc. It should be as broad as possible concerning viewpoints about the issue in question.

From this material you select the **Q-samples** which are those statements (or pictures or what ever) that best stand for the different existing opinions or ideas on a subject. It is a subset of the “Concourse” and the problem is how to select a subset so as to provide representativeness. Typically used are experimental design principles by Fisher (Fisher, R.A. (1935). Often the subject of a concourse can be divided into two or three categories and these subdivided into different dimensions. Following see a possible example for gathering opinions on an intervention like a large dam, a tourism project, a copper mine, etc.etc.)

Considerations concerning a project	Ecology(A)	Economy(B)
Ethical (1)	A1	B1
Commercial (2)	A2	B2
Constitutional (3)	A3	B3

Equal numbers of statements would then be selected from each of the cells. (Brown S.R., 1993) which means that if you want 4 statements of each category you get $N=(4)*(6)=24$ statements to select out of the Concourse.

These Q-samples (numbered randomly) are then submitted to the respondents for the **Q-sorting**. Each person rank-orders the samples from agree to disagree, which can go from -2 to +2 or even from -5 to +5 and mostly people are asked to follow a normal distribution in order to avoid rankings only at both extremes.

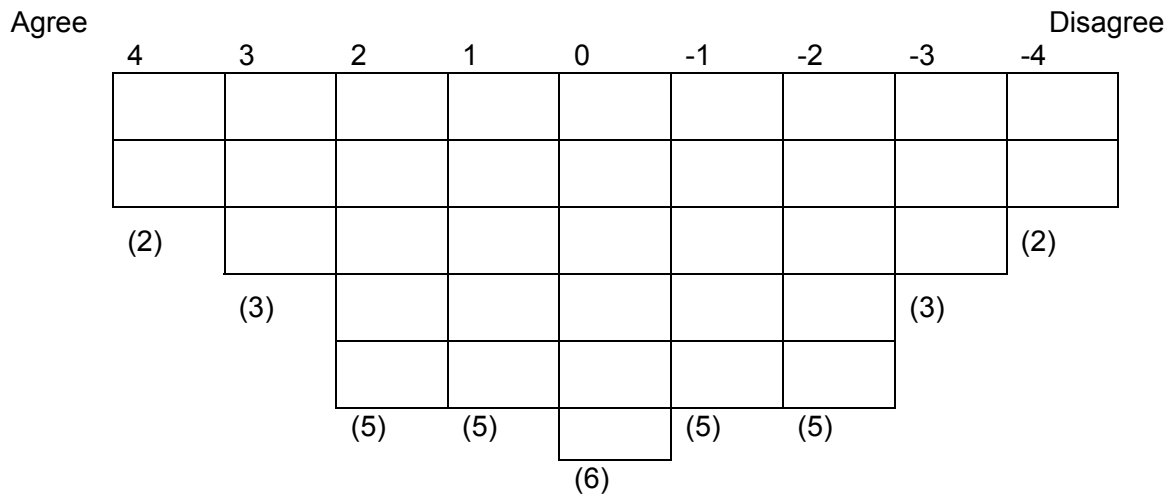


Fig. 1. (N=36) Example of a q-sort distribution, where people are allowed to strongly agree respectively disagree with only two of the 36 statements

Normally the statements (or pictures etc.) are typed on cards which can be distributed accordingly.

Then these sorts (individual judgements of the participants) are submitted to **Factor Analysis** and rotated until different factors show up. Each factor represents a different group of people who see/perceive/feel the world in a similar way.

The principal aim of a Q-Study is to get out the different existing factors (functional groups) concerning a certain subject/question at issue, even if among these viewpoints were opinions of a minority. The quantity of people doing the q-sorts is not as important as might be in other quantitative research. If the Concourse is comprehensive, the samples are selected in a most possible representative way then even some 15-20 q-sorters (who are hopefully selected not exactly all from the same political party or pressure group etc.) can show up the ever existing “factors” within the society. Normally a set of 70 sorters do not show up with more factors than can be found with a diverse group of 20 sorters.

Ideally after the sorting process, sorters shall be interviewed individually in order to get additional information which can often be of help with difficult interpretations of the data resulting of the factor analysis.

The Peruvian Andes And The Projects

The two “participatory” projects which are evaluated in the ongoing study in the Peruvian Andes are both with similar target population (rural poor) but in different sites and addressing two different subjects.

In the surroundings of Huancayo, FAO has been introducing Farmer Field Schools in many places in order to teach people Integrated Pest Management and how to reduce the use of pesticides. The villages are poor, but not really removed, the altitude is between 3000–3800 m.o.s. and they are at a distance of 1-2 hours to Huancayo, the capital of the department. From there it takes about 8 bus hours to Lima, the capital of the country. People speak Spanish but many of the older ones are almost illiterate. People have got enough food but many young people do not see perspectives for their live in the region.

The projects had been published in public sites in different communities and people could subscribe, if they wanted to participate. The participation in the project itself is limited to the teaching style which differs completely from the traditional top-down style of teaching in Peru. Instead of the common listening-repeating and memorizing process participants (adults and young adults) in Farmer Field Schools learn by doing, by observation, by group work, by discovering, by asking, by trying different options, by listening to colleagues etc. People shall get more self confidence; they shall learn to appreciate their own knowledge and the one of their colleagues and get used to networking and information procurement.

The SANBASUR projects are co organized by different state agencies (Swiss and Peruvian) and local communities. The sites in Cusco are much more remote than in Huancayo, the altitude differs from 2000- 4200 m.o.s., people often do not speak Spanish but Quechua and are illiterate. People are often very poor which means that they often do not have enough food for a good alimentation of their children, health care system is very basic and even so the medical stations are too far to get there at time in cases of emergency.

The rural sanitation projects of SANBASUR only start in places where there is a direct demand from a community (authorities). After the first technical appraisals, the whole community that wants to get the intervention must agree in active collaboration. There are penalties for community members who do not fulfil their compromises. Normally the sanitation intervention is very broad. School teachers are coached in order to emphasize the problem of clean water and hygiene in the schools, while a health care community worker starts visiting every household and working with (mostly) women on improving the sanitary aspects. The men are compromised in constructing water pipelines and toilets; project agencies only pay material and the engineer who plans and implements the installations. All work must be done by the community itself. After the successful installation of the sanitary system, the respective health care worker stay some more time in the communities in order to supervise the change of behaviours (washing hands, cleaning around the house, using the toilets etc.) and further promote the correct handling and maintenance of the installations, which after a short time are completely and exclusively managed by community boards.

Data Collection

For the study in Huancayo I included 88 persons, 51 project participants and 37 test persons (non participants), for the study in Cusco I included 154 persons, 77 project participants and 77 non-participants. Actually there are 4 subgroups which are separately analyzed before and after intervention of a project.

Concourse:

The statements for the concourse were taken from personal experiences with former surveys, formal and informal conversations and group discussions in different rural sites in Peru and over several months. In a several days meeting with 2 agricultural engineers, 2 sociologists and an agricultural economist, we worked on 105 statements for the Q

concourse. Out of this concourse we selected 48 Q sample statements, all concentrating on 8 crucial aspects of poverty. They refer to aspects/values like power, enlightenment, wealth, well-being, skill, affection, respect, and gender relations. These values are close to those proposed by Lasswell (Lasswell H.D. 1976, and mentioned in Dobyns et al., 1971) with the exception of gender relations, which replace Lasswell's value of "rectitude".

We had to adapt the statements in order to use them for an oral administration which is not the usual case. Normally the sorting process is done with cards which have to be rank ordered within a given scheme mentioned before and even possibly along the normal distribution. We had to reduce the range of possible answers to a max of +2 to -2 (-2 -1 0 +1 +2).

A first pilot study with 28 persons allowed us to test the feasibility and get an idea of accuracy. Considering the lessons learnt with the pilot we then reduced the Q sample statements to a number of 40 and applied it in a pre-study in Cajamarca (Northern Andes of Peru) to 73 persons from 15 different villages (Züger R., 2003) before applying the method in Huancayo and Cusco. We were three interviewers, one of us also speaking Quechua. The main problem was to synchronize the way of how to conduct the interviews and how to write down the oral rankings as congruently as possible.

The second series of interviews (after project intervention) will take place at the end of 2005 first months of 2006. The Q-sort exercise will be exactly the same as it was some 2 years ago, but additionally we will have conversations with every participant about possible external changes they might have occurred within this period, but also about there priority settings and there plans etc.

Data Analysis of The Base Line Study

As already mentioned, at this stage there only exist baseline data which are analysed in 4 independent groups (Huancayo Participants Group, Huancayo Non-Participants Group, Cusco Participants Group, Cusco Non-Participants group). The same four groups will be interviewed and analysed in 2005-2006 and then individual comparisons will be made. As an illustration I will describe the Cusco Participants Group as it shows at the moment.

The data analysis was done with the PQ_Method software, following the instructions of the software manual, as well as based on recommendations by many Q list-serve members and on papers of the following authors: (Mc Keown and Thomas, 1988), (Brown S.R., 1978), (Brown S.R., 1993), (Fürntratt E., 1968) and (Schlinger M.J., 1994).

The statements, rankings per factor (normalized factor scores) and loadings find enclosed in the appendix (1-3). The dataset consists in 77 sorts (persons) and 40 statements (n=40). This means that statistical significance for loadings are achieved when

- The absolute loadings are > 0.41 or < -0.41 ($(1/\text{SQRT}(40)) * 2.58$ (SQRT=square root)
- And the difference (d) between loadings on different factors (x and y) is at least $2.58 \times \text{SED}$ (SED=standard error of the difference)

A factor normally is acceptable as a factor if it is defined by at least 3 variables (Fürntratt 1968) (Thurstone, 1938) but in the sense of the psychological interpretation normally a best solution lies below the mathematically possible solution (Fürntratt, 1968). Nevertheless in the underlying example I chose a varimax rotation solution with 6 factors, even if there exist some correlations between factors 1, 4, 5, and 6. In a solution with only 3 factors, correlations between the factors were much more and much less of the variance was explained. (42% are explained with 3 factors, 57% can be explained with 6 factors) and all the factors were defined with more than 3 variables:

Factor characteristics:

Factors	1	2	3	4	5	6
No of defining variables	17	13	4	5	6	5

Correlations between factor scores

Factors	1	2	3	4	5	6
1	1.000	0.395	0.219	0.349	0.493	0.368
2		1.000	0.048	0.357	0.175	0.327
3			1.000	0.299	0.141	0.207
4				1.000	0.305	0.325
5					1.000	0.238
6						1.000

Characterization of The Six Factors

At that stage the analyze is not finished. Different solutions with 4-5 factors and hand rotation instead of varimax rotation might bring more insight in the still very complex factors.

Factor 1)

Represents a most progressive, confident, proud, open-minded, gender sensitive and consequent type, with a positive attitude, does not wait for help, decided to help themselves (alone and within the community)

Factor 2)

Factor 2 persons are also proud, not consequent and not so self confident, tend to dependence, are not very open-minded to the wider world but socially integrated and feel o.k. in their environment.

Factor 3)

People who feel powerless, have many fears, have no physical safety (food and possibilities to lend money) have got a very reduced confidence in others and in the capacities of women, they believe that if they were better organized, they could do better and are not willing to accept everything authorities tell them.

Factor 4)

In many points factor 4 persons are similar to factor 1 persons, but they complain that there is no money available and that without help from outside there is nothing to do. (These respondents need to be very well analyzed, probably they are a very bright under group of Factor 1 and some of their answers are biased because they complain in order to get support)

Factor 5)

These people are in between Factor 1 and 2. They are moderately progressive, very pragmatic and socially well seen in their community, like 2, but more open-minded.

Factor 6)

People are very similar to people of Factor 3, they have many fears, do not believe in better future, but there are contradictions: they are those people who say that there is always a bit of money and food left for emergencies and for other people who are in need of. They are also very contradictory concerning gender.

(For statistical details see appendix 3: distinguishing statements)

At that stage the analyze is not finished. Different solutions with 4-5 factors and hand rotation instead of varimax rotation might bring more insight in the still very complex factors. The challenge will be to get "some few clearly defined types of rural poor" which might be a hypothetical essay if reality shows a too great complexity. The decision to reduce the number of factors in order to get a simpler characterization of the different types does not seem an interesting option at the moment. Too many interesting facets might get lost. But in order to compare and enclose this part of the study with the other 3 groups of the study it might be necessary later on to reduce the number of factors that can be considered.

Further Use of The Results of This Q-Study

The hypothesis of the research based on this Q-study is that if people involved in a participatory project get empowered, they are supposed to change. What exactly the changes will be is not clear yet and must be shown by the results. But people can be expected to develop in a direction with more self confidence, more positivism, more active attitude etc.

That's why after project intervention in both places (Huancayo and Cusco), the same people are supposed to repeat the same Q-sorting and individual changes as well as movements of the groups shall be tracked. In the ideal case people participating in projects would move from one factor to another (more empowered one) over the time, whilst non-participants would remain in their factor. Hypothetical illustration, see fig. 2, (Brown S.R., 2003). Higher factors are supposed to represent more empowered people.

Person	Project participation	Degree of empowerment (1 < 2 < 3 < 4) (factor groups)	
		At Time 1 (before)	At Time 2 (after)
1	0	1	1
2	0	3	3
3	0	2	2
4	1	1	3
5	1	3	4
6	1	2	4

Fig.2 (adapted from Brown S.R., 2003 and Züger R., 2004)
Hypothetical illustration of expected changes in empowerment over time, due to participation in a Participatory Development Project.

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Appendices

- 1) Statements
- 2) Rankings (normalized factor scores) of the different factors
- 3) Distinguishing Statements
- 4) Loadings

1) Statements

Nr	Cat	Text
1	P	Las instituciones vienen apoyar a la comunidad pero Usted nunca tiene la posibilidad de integrarse al grupo
2	E	Educación para nuestros hijos no les va ayudar nada, es tiempo perdido
3	W	Muchas veces uno les da el gusto a sus hijos
4	S	Hablar delante gente, delante la comunidad es difícil
5	Wb	Está Usted de acuerdo con el dicho: Pobres nacimos, pobres moriremos?
6	G	Las mujeres que son congresistas, alcaldes y regidoras, seguro que son buenas esposas y madres.
7	A	No hay que confiar en nadie, solo en uno mismo
8	P	Los de Lima tienen todas las ventajas y la gente de provincia no tiene ninguna
9	E	Es muy importante informarse sobre la política
10	W	Usted presta dinero cuando uno de sus vecinos lo necesita?
11	S	Sus vecinos muchas veces vienen a preguntarle y pedirle consejos a Usted?
12	G	Es bueno que en las reuniones participen ambos, mujeres y hombres.
13	A	Cuando alguien se enferma, la gente de la comunidad viene ayudar?
14	R	Hay que aceptar todo lo que dicen las autoridades. Ellos sabrán mejor que nosotros.
15	P	Los agricultores deben unir sus esfuerzos para ser escuchados.
16	W	Aquí comemos bien todos los días.
17	S	Participar en un grupo sin conocer a nadie es incomodo.
18	Wb	Usted tiene muchos planes y sueños para el futuro.
19	G	Las mujeres no saben para opinar de los problemas importantes, son humilladas.
20	A	Participar en reuniones es bueno para conocerse en la comunidad.
21	R	Los antiguos trabajaron duro y parejo, es un orgullo seguir sus pasos.
22	W	Es imposible organizarse sin el apoyo de las instituciones
23	S	Cuando Usted necesita saber algo, hay alguien a quien puede preguntar en otro lugar?
24	G	Cuando hay que tomar una decisión, las parejas deben conversar y decidir juntas
25	A	Siempre sobra algo para darle a alguien quien está todavía mas necesitado que uno mismo
26	P	Muchas veces se puede mejorar la situación sin el apoyo de afuera
27	E	Las cosas que se hablan en las charlas son demasiado difíciles, mejor es quedarse con sus quehaceres.
28	W	Uno siempre ahorra algo de sus ganancias para invertir.
29	S	Usted siempre prueba cosas nuevas en la casa o en la chacra?
30	Wb	Si uno realmente quiere algo, lo puede lograr
31	Wb	El miedo siempre nos acompaña.
32	A	Si los vecinos trabajan juntos, hacen buenas cosas dentro de la comunidad
33	R	Por ser agricultor no nos respetan, deberíamos hacer otra cosa
34	E	Si los agricultores tuvieran mas dinero deberían invertir más en venenos contra la plagas
35	W	Cuando se necesita dinero siempre hay alguien en la comunidad quien presta.
36	S	Si el año para la agricultura es malo hay que hacer otras actividades para ayudar a la familia
37	G	Si a las mujeres se les enseñase la agricultura lo sabrían hacer por lo menos igual como los varones
38	R	El orgullo es un lujo que solo pueden tener los ricos
39	Wb	La alegría es mas fuerte que el miedo
40	G	Los hombres tienen mas carácter para aprender y quieren conocer mas que las mujeres.

(categories (cat): P= Power, E= Enlightenment, W=Wealth, S= Skill, Wb= Wellbeing, G=Gender, A= Affection, R=Respect)

2) Rankings (Normalized Factor scores)

The most positive respectively negative ones:

Factor 1)

No.	statement	z-score
Statement		
30	Si uno realmente quiere algo, lo puede lograr	1.04
15	Los agricultores deben unir sus esfuerzos para ser escuchados	1.013
13	Cuando alguien se enferma, la gente de la comunidad viene ayudar	0.98
<hr/>		
2	Educación para nuestros hijos no les va ayudar nada, es tiempo perdido	-1.97
22	Es imposible organizarse sin el apoyo de las instituciones	-2.01
1	Las instituciones vienen apoyar a la comunidad pero usted nunca tiene la p...	-2.03

Factor 2)

No.	statement	z-score
Statement		
12	Es bueno que en las reuniones participen mujeres y hombres	1.12
24	Cuando hay que tomar una decision las parejas deben conversar y decidir j...	1.12
32	Cuando los vecinos trabajan juntos, hacen buenas cosas dentro de la comu..	1.12
<hr/>		
8	Los de Lima tienen todas las ventajas y la gente de la provincia no tiene	-1.75
36	Si el año para la agricultura es malo, hay que hacer otra cosa para apoyar a..	-2.09
2	Educación para nuestro hijos no les va ayudar nada, es tiempo perdido	-2.09

Factor 3)

No.	statement	z-score
Statement		
5	Esta Usted de acuerdo con el dicho pobres nacimos, pobres moriremos	1.30
15	Los agricultores deben unir sus esfuerzos para ser escuchados mejor	1.30
20	Participar en reuniones es bueno para conocerse mejor en la comunidad	1.30
<hr/>		
38	El orgullo es un lujo que solo pueden tener los ricos	-1.89
37	Si a las mujeres se les enseñase la agricultura, lo sabrían hacer por lo me...	-2.15
10	Usted presta dinero cuando uno de sus vecinos lo necesita	-2.17

Factor 4)

No.	statement	z-score
Statement		
12	Es bueno que en las reuniones participen mujeres y hombres	1.15
15	Los agricultores deben unir sus esfuerzos para ser escuchados mejor	1.15
30	Si uno realmente quiere algo lo puede lograr	1.15
<hr/>		
14	Hay que aceptar todo lo que dicen las autoridades, ellos sabrán mejor que...	-2.27
4	Hablar delante la comunidad es difícil	-2.29
26	A veces se puede mejorar la situación sin el apoyo de afuera	-2.48

Factor 5)

No.	Statement	z-score
Statement		
20	Participar en reuniones es bueno para conocerse mejor en la comunidad	1.35
24	Cuando hay que tomar una decision las parejas deben conversar y decidir j..	1.35
36	Si el año para la agricultura es malo hay que hacer otras actividades para...	1.21
<hr/>		
1	Las instituciones vienen apoyar a la comunidad pero Usted nunca tiene....	-1.94
27	Las cosas que se hablan en las charlas son demasiado difíciles....	-1.99
5	Esta Usted de acuerdo con el dicho porbres nacimos, pobres moriremos	-1.99

Factor 6)

No. Statement	statement	Z-score
5	Esta Usted de acuerdo con el dicho pobres nacimos, pobres moriremos	1.12
13	Cuando alguien se enferma, la gente de la comunidad viene ayudar	1.12
20	Participar en reuniones es bueno para conocerse mejor en la comunidad	1.12
33	Por ser agricultor no nos respetan, deberíamos hacer otra cosa	-1.83
2	Educación para nuestros hijos no les va ayudar nada, es tiempo perdido	-2.25
11	Los vecinos muchas veces vienen a preguntar y pedir consejos de Usted	-2.68

3) Distinguishing Statements

Factor	Distinguishing statements	Normalized score P <0.1
1	Hablar delante la comunidad es difícil	-1.62
	Es imposible organizarse sin el apoyo de afuera	-2.01
	Es muy importante informarse sobre la política	-0.16
	No hay que confiar en nadie	-0.05
	Muchas veces se puede mejorar la situación sin el apoyo de afuera	0.65
2	Participar en un grupo sin conocer a nadie es incomodo	0.99
	Si a las mujeres se les enseñase la agricultura lo sabrian hacer por lo me..	0.86
	Las cosas que se hablan en las charlas son demasiado difíciles	0.67
	No hay que confiar en nadie, solo en uno mismo	-0.67
	Hay que aceptar todo lo que dicen las autoridades, ellos sabran....	-0.85
	Los de Lima tienen todas las ventajas y	-1.75
Si el año para la agricultura es malo hay que hacer	-2.09	
3	Aquí comemos bien todos los días	-1.51
4	Cuando se necesita dinero siempre hay alguien quien presta	1.16
	Muchas veces uno les da el gusto a sus hijos	-0.97
	Hablar delante la comunidad es difícil	-2.29
	Muchas veces se puede mejorar la situación sin el apoyo de afuera	-2.28
5	Las mujeres no saben para opinar	0.68
	Cuando alguien se enferma, la gente de la comunidad viene ayudar	-0.71
	Educación para nuestros hijos no les va ayudar nada, es tiempo perdido	-1.34
6	Muchas veces se puede mejorar la situación sin el apoyo de afuera	-1.31
	La alegría es mas fuerte que el miedo	-1.04
	Los vecinos muchas veces vienen a preguntar y pedir consejos de Usted	-2.68