Feedback for Urban Planning and Solutions

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1 ABSTRACT

As the objects of urban planning have the inhabitants or visitors as a target groups, it is often sought to get some input into the planning process by the target group.

This paper discusses the possibilities of using psychometric, internet based, assessment tool to evaluate the attitudes of people towards different aspects of the urban planning and solutions and the people's preferences toward them in urban environment as an alternative to the most often used questionnaires. These used to be costly in the "paper" times. Today, there are other issues, like the ICT barrier (be it age, connectivity or other resource).

The paper is based on a pilot study which has been run in 2008 at one of the many housing estates in Czech republic, that have grown through the ages of the communist rule and are in general a good example, where the urban planning can go to extremes, when searching for a price/m2 solution.

The pilot study proved, that it is possible to get relevant feedback, further more, opened more issues that are addressable in such projects and are not so easy to be solved by conventional questionnaires.

2 INTRODUCTION TO THE PROJECT

In 2008 the Ministry of regional development opened a call for architectural solution to further development of the housing estate – Karviná, Hranice. A project had been started by Ing. Arch Eva Špačková (Špaček projekt s.r.o., www.spacekprojekt.cz).

As the requirements of the project were to include the sociological study before starting to design, it has been decided to run a questionnaire, and in parallel, to use an internet based psychometrical methodology to gather basic information on the attitudes of the inhabitants of the housing estate towards its present status quo and also towards general requirements to living environment.

The main tasks of the survey at that time were to find out, what are the needs of the inhabitants related to their living environment, and the survey was oriented in two directions:

- to find out the key benefits of the present urban solution and their possible improvements;
- to find out the key risks that the inhabitants are perceiving within their neighbourhood.

At the same time, the survey should validate the possibility using the internet based psychometrical diagnostics, that is of:

- receiving feedback from large amounts of people in short time;
- minimising "role playing" when answering questions from the questionnaires which means receiving a better value of the results.

It was decided to use a internet based survey methodology because it binds both requirements together.

(a) the results are available instantly either at the time of the survey (as a preliminary results) or right after the end of the survey.

(b) survey respondents are presented with words (one after another) each surrounded by the same eight colour balls, out of which they select three. This process eliminates the "role playing" within the responses, as the respondents do not have any clue of what the "correct" answer (reaction) is and so they "just select colours".

The other reasons were (1) the ratio of resources needed to the richness of the results, for the questionnaire has always to be printed out, handed out in large numbers and have the process of gathering it back for evaluation (2) the individual psychometric values that are provided as the results of the survey, which can easily be used to match project main targets.

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3 INTRODUCTION TO THE METHODOLOGY

This chapter discusses the internet based psychometric diagnostics methodology, which was used for the survey. The methodology is based upon words and colours.

In general, when composing a questionnaire for a survey such as in the discussed project, there are many questions being alike.

Do you agree, that the most important problem to solve in your neighbourhood is ….

Do you agree, that the mos important inprovement to your neighbourhood could be …

Are you satisfied with living in …

Do you plan to move to a different address …

The used methodology, instead of requiring the user to think about the replies to all of the questions, records instead „only“ selections of three colours (out of eight) chosen by the participant of the survey when being presented a single word.

The selection then repeats for 60 basic words, which include words such as Me, I want, I must, Reward, Weather, Partner, Energy, People, Nature, … These „basic“ words, which are used also in other application fields of the internet based psychometric diagnostics are then accompanied by next „topic“ words, up to a total of 120.

The topic words always represent the focus of the survey. Words used in this survey are discussed in greater detail in chapter 3.2.1.

3.1 Colours

Have been used in history in large scale and are still being used for diagnostic purposes.

In modern times, Max Lüscher and his studies proved, that human perception of colors is affected by human emotions.

Current usage of colours in diagnostics:

- Lüscher institute (http://en.wikipedia.org/wiki/Max_L%C3%BCscher);
- Colour Association, o.p.s. (www.camethod.com);
- Balance management (www.balancemanagement.com);
- DAP Services (www.dap-services.com).

3.2 The usage of colours in the diagnostics

The coloured circles (since 2007 shaded to provide a full spectrum of the different shades of each colour) are now a protected (Alicante) result of the 25 years of research, which was targeted to have an input from the respondent that would be maximally independent on the differences in displaying colours on different types of displays and also to match human individual colour preferences.

Also, for the accuracy of the diagnostics process, the colour circle rotates during the diagnostics process, as for the respondent not to get used to “clicking always in the same positions”.

Instead of word, pictures, photographs or even animations can be placed in the middle of the circle. The ability of the diagnostic test to record and then evaluate associations in the human brain expressed by selecting colour circles remains unchanged in all cases. DAP Services is running marketing surveys for companies, that want to know, how will their target groups perceive certain types of packaging or even the design of the goods.

3.3 Words, associations

Associations were studied and used

http://en.wikipedia.org/wiki/Association_(psychology)

http://en.wikipedia.org/wiki/Free_association_(psychology)

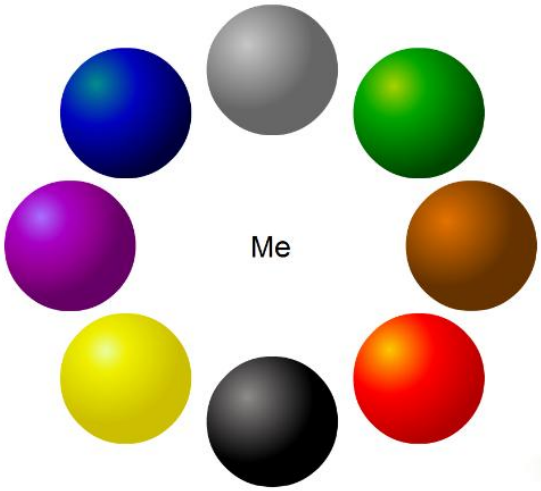

Fig. 1: Colors used within the survey.

3.4 Words used within the survey

This chapter presents the individual words that we have used within the survey and discusses the reasons for including the words in the survey.

Mostly the "topic" words are listed here. The standard words are in bold and underlined.

Words	***Factor***	***Notes***
Me, Anonymity, Guests, Neighbourhood, **Society**, Dog, Youth, **Loneliness**, Privacy, Mothers with children, **People**, Strangers	Communities	We wanted to find out, what are the relations of the individuals towards communities.
Street, Walkway, Internet, Pedestrian zone, Road, Roadway, City centre, Paveway, Path, Orientation,	Communications	These are communication words
Park, Town square, Parking possibilities, Garden, School, Playground, Services, Kindergarten, **Nature**, Market place, Coffee shop, Library, City/Town, Spa park, Mothers' club, Youngsters' club, Seniors' club, Car, Music club,	Facilities	
Sport, Dance, Games, Walking, Cycling, Barbecue, Picknick, Playing, Party, Resting, Cleaning services, Activity, **Movement**,	Activities	
Accident, Noise, **Risk**, Criminality, Litter,	Unwanted	
Art, Statues, Safety, Parking fees, Beauty, **Change**, **Information**, Ownership, Peace, **Health**, Freedom, Country	Other	

Table 1: Words used within the survey.

From the table there is to be seen a clear concept of selecting words, that at best match attitudes to the daily life of the housing estate inhabitants.

Some of the words might seem a bit awkward in the context of such survey, but the table includes only a simple translation of the words, not the transformation of the associations, which would be needed to conduct a similar study in different languages.

For example, the associations to the czech version of the word "Movement" (pohyb) have nothing to do with social movements, it associates only the movement in the physical sense of the word.

3.5 Respondent´s processes at the time of survey

To give the reader a closer understanding of how such a survey is being run from the point of the respondent, we have described shortly in this chapter some details about how-to (participate as a respondent):

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At the time of survey, the user is directed to a web page. The link usually reflects the actual project (as with the current REAL CORP evaluation: www.dap-services.com/projects/real-corp2012). This leads to a page that collects the age and gender of the respondent.

After entering the age (selecting year of birth), and gender, the respondent is asked to provide his own colour preferences by clicking on all eight provided coloured balls. After the initial color selection, the respondents then choose three colors for each displayed word (see Fig.1). At the end of the survey, sociological data are entered and before that, once again the respondent selects all eight colors.

The duration of the survey for the respondent is about 20 minutes.

3.6 Motivation of the respondents

Internet questionnaires usually have a 2%-3% return rate. This drawback can be adressed by our methodology in the following way: as the psychometric survey includes the „standard“ words among the „topic“ words, it is possible to use the existing database (of over 350.000 respondents) to provide a personal feedback to the respondent, regarding to his own psychometrical measurements.

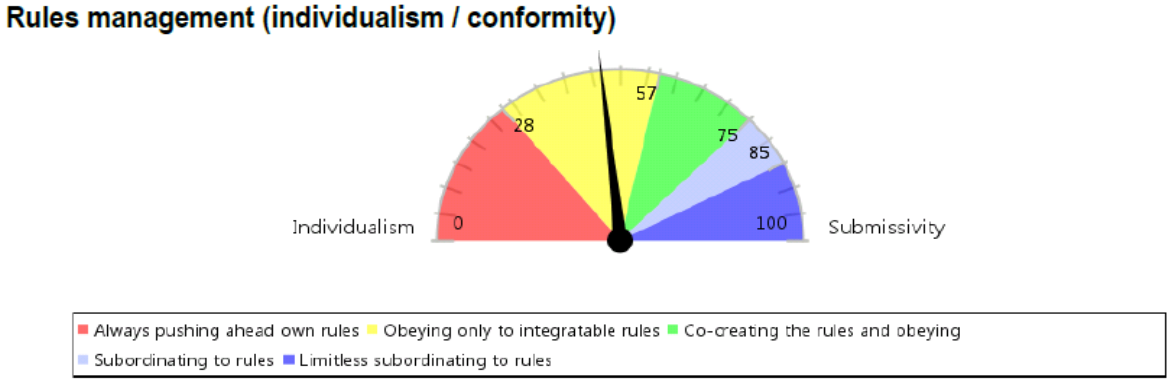

Fig. 2: Example of result: Rules management.

For example the following values can be returned to the respondents:

It is also a benefit for the survey, when the motivation of the respondents is addressed by providing by this personal results, because the organizer of the survey can then receive a validated array of e-mail addresses of the respondents.

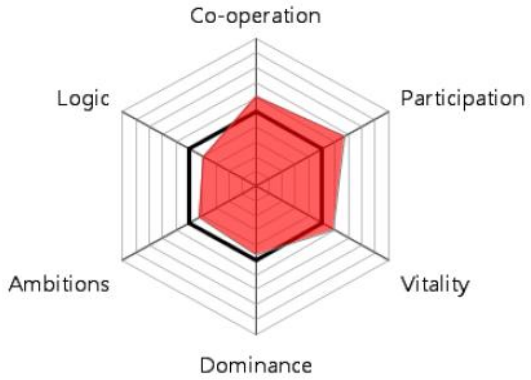

Fig. 3: Example of result: Constructive behavioural types.

3.7 Evaluation

The color reactions of the respondents to the words are then evaluated based on two factors. (a) correlations, (b) colors. The evaluation process is currently beíng patented and is part of the company internal know-how.

As a result

- the words can be identified and related to attitudal groups;
- there can be correlation networks identified among the words.

In this project, high correlations were measured for the following words, which we have grouped to form factors within positive and negative attitudes.

4 INTERPRETATION OF THE RESULTS

Each measured result can be interpreted in the context of the current project.

In this project we have interpreted the results in the main identified factors as follows.

4.1 Positive attitudes

Positive attitudes were identified as those scoring high in correlations to the following association chain:

I want + I may + I can + Reality + I reward myself

which can be interpreted as respondents „real wish that will bring self-reward“. This correlation chain was identified in a statistically relevant amount of responds.

4.1.1 Summary of positive attitudes interpretation

The respondents value possibilities for safe and various movement activities, accessibility to information and neighbourhood that will be pleasant and will not allow for harmful agressivity.

4.1.2 Detailed positive attitudes interpretation

For positive attitudes the following words/association chains scored high in their colour selections correlations:

(A) Movement + Walking + Health + Fun + Rest + Peace

This can be interpreted as the needs of the respondents concerning their surroundings. They require a restful pacefull zone with no limits on movements, where health „improvement“ can take place, and at the same time the place should allow to host social events (an opposite to Loneliness).

(B) Internet + Children mothers' club + Library + School + Mothers' leave

This can be interpreted as the needs of the respondents concerning further education and of the mothers who are at home with their kids concerning the available infrastructure services.

(C) Orientation + Ease of finding one's way out

This can be interpreted as the need of the respondents to have a good knowledge within the housing estate in relatio mainly to safety (pavements, roads, parking places), getting information, local activities, as well as from the risk point of view (places with potential agressivity).

4.2 Negative attitudes

Negative attitudes were identified as those scoring high in correlations to the following association chain:

I do not want + Risk

For negative attitudes the following words/association chains have scored high in their colour selections correlations:

(A) Criminality + Risk

The respondents want to live in a safe place and perceive their neighbourhood as not being safe and free from criminality.

(B) Noise + I do not want (+ kindergarten, playground, park, guests)

This can be interpreted that noise should not be in associated places (see brackets above), and where the guests are.

(C) Litter + I do not want (+ park, playground, walkway)

This adresses the negative attitudes of respondents to litter in the associated places (see brackets above).

(D) I do not want + I see + town + street + accident + car

The respondents do not wish to be endangered by the traffic in the streets.

(E) Garden + Country + Services + Town square

The respondents wish to have better access to own gardening possibilities, better access to services associated to country (fresh food, food markets).

5 CONCLUSION

Using internet based psychometrical diagnostics has been proven as being functional in providing feedback for urban planning and solutions.

In general it can be used wherever the infrastructure allows for an internet connection (even though there are tablets, which are able to save the results of the diagnostics locally and send it for procession as soon as they connect).

The key factor of internet based survey – the motivation to undertake the survey can be in this case supported by providing a personal feedback for the respondent at the same time (as a reward for completing the diagnostics). If the respondent agrees to receive such a personalised psychometrical result (see chapter 3.6) there is also his e-mail address recorded for future reference.

For the cases, where information technology gap should be the core of the problem, there still are to be used questionnaires.

Positives

- in developed countries with accessible internet infrastructure and narrow (or none) human/ICT barrier, quite a large amounts of data can be gathered, mostly using today's social networking tools to run some form of a contest with an ipad2/3 as the main prize;
- the results can be computed and generated throughout the survey and the process of input can be easily monitored; are available instantly on demand, as they are generated from the database based on the actual status of the data;
- the respondents have very little (next to none) possibilities to see what results are there to be produced which makes it for them even easier to run the diagnostics (having the freedom “not to think” while letting the associations appear in their minds and letting literarely their hands to choose the colours.

Negatives

- there still is some work on the interpretations, they are not yet fully end-user readable;
- ICT gap/barrier does not allow for use in some cases.

5.1 Future possibilities

We are in active search for a strategic partner (for each major world language) that would like to use the methodology to form a language specific product, that would have at least two forms, one more open to perform more research-oriented surveys, and one, configurable, but more closed, that could be used widely to support the urban planning and development.

To see how our reports can look like, check out our partners site at www.balancemanagement.com.

Most probably, within a year or two, there will be a feedback solution based on the discussed methodology, that can be easily used and is such a low cost that it gradually becomes a usual way of gathering feedback in this case.

6 REFERENCES

http://www.balancemanagement.com
http://www.dap-services.com
http://www.camethod.com
ŠPAČKOVÁ, Eva: Sídliště na přání (Housing estate to a with). Ostrava, 2008.