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# BLA (Bipolar Laddering) applied to YouTube. Performing postmodern psychology paradigms in User Experience field

Marc Pifarré, Xavier Sorribas and Eva Villegas
*Enginyeria Arquitectura La Salle Universitat Ramón Llull*
*Spain*

## 1. Introduction

The little details of products and services are often the most influent aspects to achieve a pleasant user experience. But, how can we obtain those little relevant details?

Normally the topics about user response are predefined by the team who perform the test, then users only answer about what a facilitator asks trough the entrusted tasks. Once the test is done, data is treated in an empirical way. But this conception of the test entails significant blind points, so this model offers a low margin of spontaneous information generated by the users, of course literals comments are noted, but subjective information is only consider as a support for empirical results.

Classical usability testing methods are inspired in experimental psychology and based in the hypothetic-deductive paradigm, but another paradigm coming from postmodern psychology is also applicable in user experience field: the Socratic paradigm.

Socratic paradigm depart from a non-objective basis perspective, nowadays is often used in some post-modern psychology schools, which applies Socratic techniques for psychological exploration and treatment. This model is characterized by obtaining the information from the user itself and not only from the observation of his behavior.

The idea of shifting from the hypothetic-deductive model to the Socratic one is inspired by the change of paradigm done by the constructivism and other post-modern psychotherapy schools in clinical psychology field. Constructivism defends a subjective and Socratic treatment of the individual; on the other hand, the classic model is based on hypothetic-deductive paradigm, so is aimed to obtain objective results using an empirical model.

## 2. Change of paradigm in clinical psychology

The key of Socratic techniques success in clinical psychology is mainly due to the will to adapt the therapy to the user, this vision is the opposite of classical psychotherapy conception which departs from the basis that the success of the treatment depends of patients' adaptation to the therapy (the better users adapt the better the results).

In order to adapt the therapy to the user the constructivist model doesn't works with a previously stipulated programs or specific guides regarding pathologies. This school applies techniques based in a maieutic conception rather than a hypothetic-deductive exercise.

What characterize the Socratic model in psychotherapy is that solutions use to come from the client (user) not from the psychologist; the psychologist is an expert who helps the subject (user) to define problems properly and find the better solution for his client. The information with the psychologist works to achieve a psychological change is completely generated by the user, this way, the psychologist can be sure the information is always significant.

The change to a constructivist paradigm in therapy means a change in the conception of patients' recovery process. It is not the psychologist changing the patient, but the patient changing himself with the help of the psychologist.
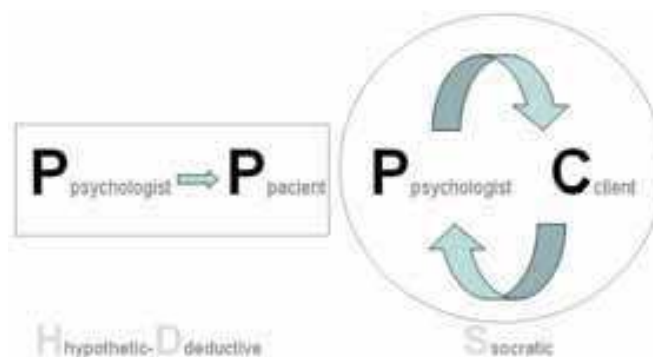


Fig. 1. Socratic psychotherapy means a change in the relationship between psychologist and patient

To get this effect, the psychologist does not predetermine or use closed systems, as it does not resolve, or even give advice. In order to adapt the therapy to the client entirely, the Socratic psychologist applications depart from a blank page, then solutions are built from a subjective treatment of the problem. Contrarily, the Hypothetic-deductive applications uses standards or rigid content techniques, so the information worked with in the therapy will hardly adapt to the patient in all the dimensions.

## 3. Adaptation of Socratic paradigm to the User Experience field

Post-modern clinical psychology schools use Socratic techniques to explore the way which the client interacts with their significant relationships, so the type of communications and behavior established with significant people is what determines the mental disorder. The paradigm shifting performed in the UX field, consists in focusing the study on the relationship between the person and the product, as the way the user interacts with a product or service is what gives the real value of that product or service.

Techniques normally performed on usability and user experience studies are based on hypothetic–deductive method. According with that model we are able to obtain information from the user interaction with the product and treat resulting data in an empirical way. But

this paradigm can present also disadvantages because we are only obtaining data about items previously defined by the person or the team who performs the test.

The way of using Socratic techniques in User Experience is parting from the minimum information possible. The test carried out must be as similar as possible to a bare page. Even though it may be a difficult and non orthodox task, interviewer must consider the user as a real expert whom they are getting advice from.

This model defends a participative product and test design, where all elements presented in the interview are going to be obtained from the users. Under no circumstances interviewers will suggest any element to the users; they only can work with the information generated from the users themselves, otherwise the subjective reliability will be negatively affected.
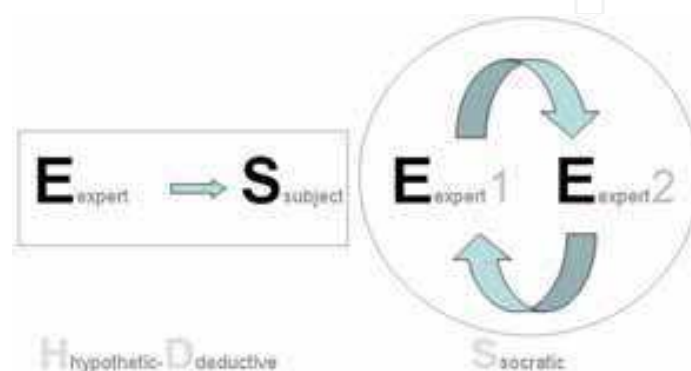


Fig. 2. The main key in a Socratic Method is to establish an expert-to-expert relationship between user and interviewer.

It is certainly difficult to find more precise and complete observation tools than the user itself. From his criteria is possible to discover aspects of the product that would have taken months of inductive observation to be detected as significant elements.

## 4. BLA (Bipolar Laddering): A Socratic Technique to Gather User Experience Information.

Starting from a constructivist paradigm basis, Bipolar laddering (BLA) method is defined as a psychological exploration technique, which points out key factors of the user experience with a concrete product or service. This system allows knowing which concrete characteristics of the product cause users' frustration, confidence or gratitude (between many others).

BLA method works on positive and negative poles to define the strengths and weaknesses of the product. Once the element is obtained the laddering technique is going to be applied to define the user experience relevant details.

The object of a laddering interview is to uncover how product attributes, usage consequences, and personal values are linked in a person's mind. The characteristics obtained through laddering application will define what specific factors make consider an element as strength or as a weakness.

Once the element has been defined, the interviewer asks the user for a solution of the problem in the case of negative elements or an improvement in the case of positive elements.

### 4.1 BLA Performing

BLA performing consist of three steps:

1.-**Elicitation of the elements**: The test starts with a blank template for the positive elements (strengths) and another exactly the same for the negative elements (weaknesses). The interviewer asks users to mention what aspects of the product they like best or help them in their goals or usual tasks. The elements mentioned need to be summarized in one word or short sentence

2.-**Marking of elements**: Once the list of positive and negative elements is done, the interviewer will ask the user to score each one from 0 (lowest possible level of satisfaction) to 10 (maximum level of satisfaction).

3.-**Elements definition**: Once the elements have been assessed, the qualitative phase starts. The interviewer reads out the elements of both list to the user and applies the laddering interviewing technique asking for a justification of each one of the elements (Why is it a positive element? Why this mark?). The answer must be a specific explanation of the concrete characteristics that make the mentioned element a strength or weakness of the product.

### 4.2 Results

There are two categories of resulting elements:

Elements regarding poles:

1.-**Positive elements** are those which the user perceives as strong points of the product, those which help them to work better or which make them feel good. These elements can be functional, esthetic or of any other type.

2.-**Negative elements** are those which the user perceives as weak points of the product, those that hinder, slow down their actions or simply are not pleasant at any level.

Both positive and negative elements are classified as Common and Particular elements.

1.- **Common Elements** those are strengths or weaknesses cited by more than one user. Those common elements are established comparing the definitions of each element. Data treatment must be qualitative to be reliable, so overlapping the name of the element is not enough to establish a common element due the difference of meaning that users can give to a similar term.

2.-**Particular elements** are strengths or weaknesses that have been cited only from one of the users.

## 5. Case Study

As an example of BLA application the case study performed of YouTube website is going to be presented. The study was held in summer of 2007 on the University La Salle with a scope of twelve people with ages from 18-35 years old, all the members of the sample were YouTube users.

### 5.1 Application

The test was done in the laboratory of user experience (UserLab) of La Salle, Ramon Llull University , resources for the test were: An interviewer and one computer with internet connection (internet explorer 7 and Firefox 2.0 were available for the user to navigate).

The interviewer entrusted the user to freely navigate by YouTube webpage and to mention what elements of the website were positive ones and what others were negatives ones based on the experience they had.

No specific time was given to users although the average time to complete the test was one hour and a half.

### 5.2 Results

Obtained results using BLA are, as stated before, separated by the users between positive and negative elements and then revised to consider them common or particular elements.

Sixteen positive common elements, twenty-three positive particular elements, seven negative common elements and eighteen negative particular elements were obtained.

Those results are exposed on tables for a quick reference.

Common elements are numbered followed by a capital C.

Particular elements are numbered followed by a capital P.

*1) Common elements*

The two common tables are exposed with further explanation of the information they gave.

| Common positive elements | | | |
|---|---|---|---|
| | **Description** | **Average Score** | **Mention index** |
| 1C | The content is unlimited | 8,66667 | 50,00% |
| 2C | Videos are organized in categories | 8 | 25,00% |
| 3C | It allows you to set playing lists | 8,33333 | 25,00% |
| 4C | It's useful distraction tool | 9 | 16,67% |
| 5C | related videos | 8 | 83,33% |
| 6C | Allows to link videos easily | 10 | 16,67% |
| 7C | IT's easy to upload videos | 8 | 16,67% |
| 8C | Search by keywords | 7,75 | 33,33% |
| 9C | Video information (community) | 8 | 41,67% |
| 10C | Censorship | 8,66667 | 25,00% |
| 11C | Being able to put references on a website | 9 | 33,33% |
| 12C | Being able to see other people favorites | 8,5 | 16,67% |
| 13C | Videos are buffered very fast | 9,2 | 41,67% |
| 14C | There's no publicity | 9,5 | 16,67% |
| 15C | Video diffusion | 10 | 16,67% |
| 16C | Punctuation, ranks | 8,5 | 16,67% |

Table 1. Positive common elements

Aside from the average scores, which will be explained later, a mention index is obtained. This indicator shows the percentage of users that have cited an element. A high mention index means that the element is perceived by the users.

In this study case, positive common element five has a mention index of 83% this allows us to acknowledge that related videos is an element that users really take into account.

| Element Code | User 1 | User 2 | User 3 | User 4 | User 5 | User 6 | User 7 | User 8 | User 9 | User 10 | User 11 | User 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Common positive elements** | | | | | | | | | | | | |
| 1C | 9 | | 8 | 8 | 9 | | | 10 | | | 8 | |
| 2C | 7 | | | | | | 8 | | 9 | | | |
| 3C | 8 | | | | | | 9 | 8 | | | | |
| 4C | 9 | | | | 9 | | | | | | | |
| 5C | 9 | | 7 | 7 | 8 | 8 | 8 | 7 | 8 | 10 | | 8 |
| 6C | 10 | | | | | | 10 | | | | | |
| 7C | 8 | | | | | | | | | | 8 | |
| 8C | | 8 | | | | | 8 | 8 | | | | 7 |
| 9C | | 7 | | | 8 | | 8 | | | 10 | | 7 |
| 10C | | 7 | | | | 10 | | 9 | | | | |
| 11C | | 9 | | | 10 | | 8 | | | | 9 | |
| 12C | | | 9 | | | | | | | 8 | | |
| 13C | | | | 8 | 9 | | | 10 | | | 9 | 10 |
| 14C | | | | | 9 | 10 | | | | | | |
| 15C | | | | | | 10 | | | | | | 10 |
| 16C | | | | | | | | 7 | | | | 10 |

Table 2. Positive common elements individual user scores

This table shows how each common element is scored by the users who have mentioned it. These particular scores are also useful once merged with the definition of the element, as a result, a better understatement of how users perceive each element is obtained.

The same type of results is obtained also for the negative elements.

| | Description | Average Score | Mention index |
|---|---|---|---|
| **Common negative elements** | | | |
| 1C | Bad Video quality | 1,75 | 33,33% |
| 2C | Information is not well related | 3,5 | 16,67% |
| 3C | A user history is missing | 4 | 16,67% |
| 4C | Videos length is limited | 3,25 | 33,33% |
| 5C | It doesn't allow to download videos | 2,25 | 33,33% |
| 6C | Overcrowded interface/ confuse page | 3,5 | 25,00% |
| 7C | Problems with the search engine | 3,2 | 41,67% |

Table 3. Negative common elements

As a result of the test seven common negative elements were generated. The majority of the mention index results are found in a bracket between 33% to 50% being elements that are notably perceived by the users. As a relevant element we can see 1C were 33% of the users mentioned the bad quality of the video on YouTube, also when we look at the scores given to that element they are extremely low.

When an element with high index of mention comes along with a low average score (such as 1C) tends to indicate a relevant weak point of the product being tested.

| Common negative elements | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Element Code | User 1 | User 2 | User 3 | User 4 | User 5 | User 6 | User 7 | User 8 | User 9 | User 10 | User 11 | User 12 |
| 1C | 1 | 2 | 3 | 1 | | | | | | | | |
| 2C | 4 | | 3 | | | | | | | | | |
| 3C | 5 | | | | 3 | | | | | | | |
| 4C | | 2 | | 2 | | | | | | 6 | 3 | |
| 5C | | | | 4 | 4 | | 0 | | 1 | | | |
| 6C | | | | | | | 2,5 | 3 | | 5 | | |
| 7C | | 1 | 5 | 4 | 3 | | | 3 | | | | |

Table 4. Negative common elements

*1) Particular elements*

A total of 41 particular elements were generated those were spilt in 23 positive elements and 18 negative elements.

Positive elements have a high average of 7.9 with 5 perfect scores found.

This represents a high positive perception of the elements mentioned by the users.

Negative elements have an average of 2.9 with two scores with a 0.

Seven elements were middle scored with assessments between 5-4

| Particular negative elements | | | |
|---|---|---|---|
| | Description | Score | User |
| 1P | It doesn't have references to common users of the video | 5 | User 3 |
| 3P | It doesn't have tags | 3 | User 3 |
| 4P | There are no movies/series | 5 | User 5 |
| 5P | There's no error corrector on search such as "did you mean…" | 2 | User 5 |
| 6P | An alert system is missing | 0 | User |
| 7P | There are not enough explanations/information | 2 | User 7 |
| 8P | Changes in typologies | 3 | User 7 |
| 9P | The label doesn't correspond with the video content | 2 | User 8 |
| 10P | Elements that call for the attention of the users | 4 | User 8 |
| 11P | It doesn't allow you to search while watching a video | 1 | User 8 |
| 12P | You can't view the video from the middle | 4 | User 9 |
| 13P | There's no buffer progress bar for the videos | 0 | User 10 |
| 14P | Navigation is confusing | 3 | User 10 |
| 15P | The interface is confusing and outdated | 5 | User 10 |
| 16P | Loss of video quality when you upload a video | 3 | User 11 |
| 17P | Videos have been taken out due copyright issues | 4 | User 11 |
| 18P | No censorship on violent videos | 4 | User 12 |

Table 5. Positive particular element

Each element score is expanded with the definition given by the user. This allows the precise understanding of each strength or weakness detected by the users.

### 5.3 Data Analysis

When reviewing elements an especial emphasis must be taken on scores as they show a very good perception of how users perceive the element. When the definition attached with the score is analyzed a precise compression of the element is achieved being able to understand why the user has cited it.

**1. Top and bottom scores**

On positive elements High scores tend to show key elements of why user perceives the product as a pleasant experience. Those elements shouldn't be modified in a redesign process.

Example 1: Element 17 Particular Positive

| Element | Description | User | Score |
|---------|-------------|------|-------|
| 17P | With the video on pause it keeps buffering | 9 | 10 |

*Justification*: *Very useful especially for slow connections, you let the video download and then you watch it.*

This element has a perfect score by the User 9. Analyzing the qualitative registration allows seeing that to have a slow internet connection is a determining factor behind the assessment of this element.

On negative elements very low scores denote elements that create high frustration to the user and really affects the experience they have with the product. Those elements should be taken in to account in a redesign process.

Example 2: Element 11 Particular Negative

| Element | Description | User | Score |
|---------|-------------|------|-------|
| 11P | It doesn't allow me to view more than one video on the same page | 8 | 1 |

*Justification*: *You can't view the video and search on the same page, you have to open another page and that's slow and tedious.*

*Solution*: *Allow me to search while the video window keeps playing. The search could be on the side.*

On this example we obtain a precise definition of the user problem with the product, acknowledging what entails to him. Asking the user for the solution of the problem allows a better understanding of the problem itself.

**2. Middle scores**

On the positive pole middle scores tend to represent elements that the user appreciates and is pleased about but doesn't impress him, this type of elements tend to be taken for granted by the user.

Example 3: Element 10 Particular Positive

| Element | Description | User | Score |
|---|---|---|---|
| 10P | You can personalize your space | 6 | 7 |

*Justification*: *It allows you to get warnings when someone comments a video you have uploaded. It helps to build a community. You can tag videos as favorites and you and other people can see it in your space.*

On negative elements middle scores are present on elements that annoy the user and create and unpleasant experience without affecting the will of using the product.

Example 4: Element 18 Particular Negative

| Element | Description | User | Score |
|---|---|---|---|
| 18P | No censoreship on violent videos | 12 | 4 |

*Justification*: *The fact that they are accessible for everybody can tend to people imitating what they see on the videos.*

*Solution*: *Those videos should be erased permanently, it would make YouTube less democratic but there's a minimum control necessary.*

**3. Paradoxical scores**

Occasionally some users define a negative element with a high score or a positive element with a low score, on those cases users must corroborate it to ensure the reliability of the element assessment.

Those elements are defined as paradoxical scores and tend to be very interesting elements to look after.

On positive elements negative scores tend to apply to elements that are perceived as bonus features that work badly. Users perceive it as a good thing as a concept, but their final experience is not pleasant. The fact that they perceived it as a bonus feature is what provokes that they don't cite them as a negative element.

Example 5: Element 12 Particular Positive

| Element | Description | User | Score |
|---|---|---|---|
| 12P | Bubble interface | 7 | 3 |

*Justification*: *It allows to visualize the path that I do on YouTube. It allows locating other videos which are in theory related, but they are not well related.*

*Improvement suggested*: *You don't really understand how it works. It doesn't give any explanation. When you exit it doesn't save the relations. It's unintuitive... actually is a piece of shit.*

Fig. 3. YouTube bubble interface (this element is already removed from Youtube website)

**4. Heterogeneous marks**

In some common elements there is a high difference between the scores of the same element, that phenomena is been called heterogeneous marks.

That tends to happen for two reasons. One is that users consider different specific characteristics of the same element, so they are really assessing different things. Checking qualitative registers it is possible to find out exactly what each user is assessing.

The other reason for heterogeneous marks is the different level of affectation of this particular element. Then, the same element can affect users in a very different way. To detect this kind of phenomena in the results analysis would be necessary to separate user narrations for each element.

Example 6: Element 5 Common Negative

| Element | Description | Score |
|---|---|---|
| 5C | It doesn't allow to download videos | 2,25 |

*User* 4               Score: 4

*Justification*:. *It doesn't allow me to download videos and I have to use other programs.*

*Solution: Give me the option to download it and that when I upload it I can decide if other users can download or not the video.*

**User** 5               Score: 4

*Justification: The video format is particular to YouTube you need an external tool to download the video.*

*Solution: Just give me the option to download the video.*

**User** 7               Score: 0

*Justification: I want to have the videos. I want to be able to archive them, store them and be able to see the video in any situation.*

*Solution: Allow me to download videos*

**User** 9               Score: 1

*Justification: You can never store a video you have to connect to internet always.*

*Solution: Download button next to the video or that when you have finished the video it gives the option to download it next to the replay options.*
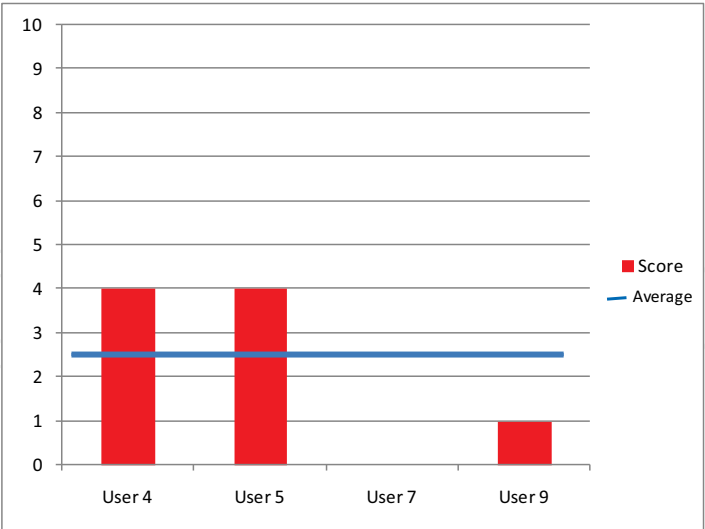
Chart 1. Common Negative element 5 Users score

We encounter four users citing the same element but when we examine the scores we find a significant difference between them.

In this example there are two scores being quite neutral on the subject and two scores being extremely low.

An analysis reveals that the users giving the bottom scores perceive downloading videos as a major necessity in the way they expect to use the product, as the narration shows users 7 and 9, doesn't have knowledge about programs to download videos from Youtube. In the other hand, users 4 and 5 have solved the problem trough external sources and don't rely on Youtube website to solve the problem.

It's also very interesting how given solutions tend to be alike but also have different particularities on the way they solve the problem. This information allows redesigning the product taking into account the real user's needs and desires.

## 6. Conclusions

Applying a Socratic method for obtaining information allows to discover subtle information of the product, This is very difficult to achieve trough classical methods. This methodological proposal not only claims for the participative product design but also promotes the user´s participation in the test product design.

From the basic results diagram, as there are strong and weak points, we can establish a sophisticated system to define the significant points of user experience regarding any kind of service or product.

To get this type of results a change of paradigm in classical user experience field is being applied.
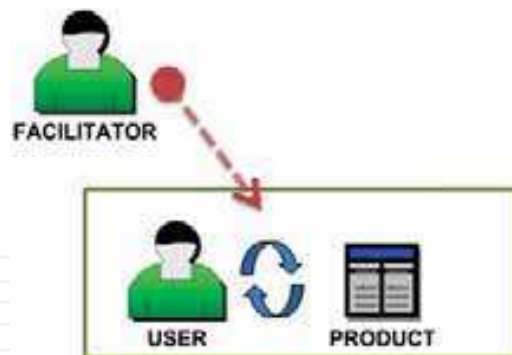
Fig. 4. Classical usability model.

We change from observing the interaction between the user and the product to making the user generate information about the product.
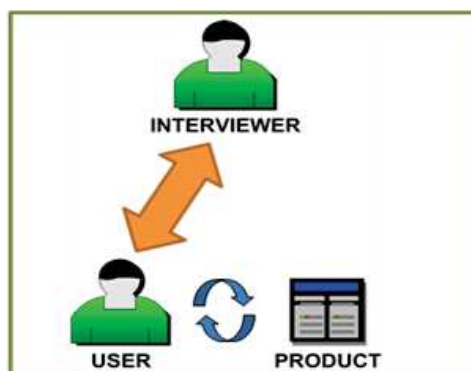


Fig. 5. Socratic Interviewing model

Contrarily to the methodology used in classical usability, the user and the facilitator are working together defining relevant factors of the product co-creating the content of the test from a blank template. The participants will have an expert role as users of the product as well the interviewer will have an expert role as a test performer.

Resulting data allows discovering a large amount of information about the relevant characteristics of the product and how and why they affect users. With the justification of each element and the score given to it we can have a quite accurate idea about how this element is experienced by the user.

Using BLA method we are trying to see the product through the user´s filter, through his perception, emotions, reasoning and value system getting a close approach to the user experience. The aim of this method is not to observe the user through the product but the product through the user.

## 7. Acknowledgment

## 8. References

Jorgensen, D.L.: Participant Observation: A Methodology For Human Studies. Newbury Park, CA: Sage Publications, 1989.

Cook, T. D., Campbell, D.T.: Quasi-Experimentation: Design and Analysis Issues for Field Settings. Boston: Houghton-Mifflin Co, 1979.

Sanders, E.: Information, Inspiration and Co-creation. In Proceeding of the 6th International Conference of the European Academy of Design. (Bremen, University of the Arts, 2005).

Sanders, E.: Virtuosos of the experience domain. In Proceedings of the 2001 IDSA Education Conference (2001)

Neimeyer, R. A. Features, foundations and future directions. In Neimeyer, R. A., Mahoney, M. J. (Eds.): Constructivism in Psychotherapy. Washington: American Psychological Association, 1995.

Mahoney, M.J. Participatory epistemology and the psychology of science. In Gholston, B., Shadish, W. R., Neimeyer, R.A., Houts, A. C. (eds.): Psychology of science. Cambridge: Cambridge University Press, 1989.

Guidano, V.F.: Constructivist psychotherapy: A theoretical framework. In Neimeyer, R. A., Mahoney, M. J. (Eds.): Constructivism in Psychotherapy. Cambridge: Cambridge University Press, 1989.

Tomico, O., Pifarré, M., Lloveras, J.: Experience landscapes. In Proc. *DESIGN 2006 Conf.* (Dubrovnik, Croatia, 2006).

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Edited by Kankesu Jayanthakumaran

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