

## Using mixed methods - combining card sorts and in-depth interviews

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## **COMBINING CARD SORTS WITH IN-DEPTH INTERVIEWS IN A CONCURRENT MIXED-METHOD DESIGN**

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### **SUMMARY**

Trust research invariably asks questions about sensitive issues, highlighting the need to build rapport and trust between the researcher and participant. It may also be necessary to ensure participants are not sensitized to the focus on trust. This chapter outlines the use of a card sort with an in-depth interview in a concurrent mixed-method design to help overcome these issues.

### **INTRODUCTION**

The problem of obtaining valid and reliable information when asking questions about sensitive issues is not unique to trust research. Notwithstanding the problems associated with gaining access, or increased non-participation due to individuals expecting negative consequences, participants' subsequent evasive answers or socially desirable responses can reduce the utility of data collected (Crowne and Marlowe, 1964). Participants' concepts of what is sensitive are socially constructed and so what matters is whether a participant considers the research sensitive for whatever reason (Arksey and Knight, 1999). Where this occurs, participants may use their answers to protect themselves from potential harm or embarrassment, to present themselves in a positive light, or to please the researcher. This, in turn, may threaten accuracy or interpretation of data collected (Dalton et al., 1997). Not surprisingly, this issue is recognized widely; most research methods texts emphasizing the need to minimize such problems by ensuring the research topic is salient to the participant, explaining the benefits to her or him and to emphasizing privacy and anonymity (for example Kvale and Brinkmann, 2009; Saunders et al, 2012).

Building upon this and similar advice, research methods texts expound subsequently how, when conducted by a skilled interviewer, face to face interviews can elicit honest responses about sensitive topics, revealing much insightful information and, of equal importance, not causing upset or distress. Whilst the amount of advice on how to ask questions on sensitive topics such as trust varies enormously between texts, that in Lee's (1993) seminal text *Doing Research on Sensitive Topics* is extensive. Even though assurances of anonymity are normally given, it is clear that, especially in the early stages of an interview, posing a direct question on a topic perceived as sensitive is likely to give poor results (Van Der Heijden et al., 2000). This is due, at least in part, to disclosure of sensitive information being only likely to be possible once trust has been established between the researcher and participant. Consequently it is crucial in the early stages of an interview to introduce questions and collect data in such a way as to allow participants' cooperation and trust to be gained so that they will respond candidly without fear that this will be compromised (Dalton et al., 1997).

My experiences as a trust researcher have shown repeatedly the importance of building trust with participants prior to asking questions about potentially sensitive issues such as reasons for their feelings of trust and distrust in relation to work colleagues. Asking such questions early on in the interview process is likely to result in either a noncommittal answer or, alternatively, a refusal to respond. At the same time it has highlighted the need to beware of sensitizing participants to the importance of trust in the research. If precise research foci are explained in detail at the outset of an interview, this is likely to raise their importance in participants' consciousnesses and, as a consequence, may introduce some form of bias in their responses; thereby compromising the research or limiting the scope to develop new understandings (Lee, 1993). As it is each participant's ethical right to have the reasons for the research explained, this raises a potential dilemma. If potential participants are provided with insufficient information regarding the purpose of the research, they will be unable to make an informed decision regarding whether or not to take part. Consequently, considerable care must be taken in how the purpose of the research is explained to allow informed consent without sensitizing.

In this chapter I consider the use of a popular data gathering technique, the card sort (Whaley and Longoria, 2009). Although not commonly used by trust researchers, when combined with an in-depth interview, this offers a method for researching the relative importance of a range of employees' feelings, including both trust and distrust, in response to organizational situations. Following an overview of sorting techniques and a discussion of the card sort method, I outline a concurrent mixed-method design in which a card sort is followed immediately by an in-depth interview that draws directly upon the card sort data. This is illustrated from my personal experiences of using this approach to explore the occurrence of trust, in relation to other feelings in response to organizational change. By not sensitizing participants specifically to trust the concurrent card sort and interview enable initial testing of propositions (or hypotheses) by blending different data collection techniques (Edmondson and McManus, 2007). In particular they allow testing of: firstly, the strength of trust/distrust relative to other feelings; secondly whether trust and distrust judgments are symmetrical, occurrence of one precluding the other and, thirdly, whether trust and distrust judgments entail conceptually different expectations and anticipated independent outcomes and the reasons for these.

## **AN OVERVIEW OF SORTING**

Sorting techniques, whereby participants sort items or stimuli such as physical objects, pictures or cards containing words into different groups, are useful in that they provide a way of eliciting agreement and disagreement regarding item categorization (Whaley and Longoria, 2009). The categories into which items are sorted may be chosen by the participant, the interviewer or a mixture of both (Rugg and McGeorge, 2005). As an elicitation technique sorting, and in particular the card sort, has a number of distinct advantages, not least simplicity of administration for the researcher, ease of understanding for the participant and relative speed of the process (Fincher and Tenenbergh, 2005). Combining with other techniques, such as the in-depth interview, allows the reasons behind participants' categorizations to be explored and understood, making sense of the data collected.

Sorting techniques have their origin in Personal Construct Theory (Kelly, 1955). This is based on the belief that, although different people categorize items differently, there is sufficient commonality to enable understandings alongside sufficient differences to support individuality (Butt, 2008). Individuals reflect their own feelings by placing items into categories on the basis of one or more criteria. Consequently an individual may classify an item such as 'trusting' into one of a number of categories reflecting the extent she or he feels it, based on criterion or criteria relating to how their employing organization has managed a particular process.

A card sort offers the simplest form of sorting technique, each item to be sorted being a card with a picture, drawing, word or phrase printed on it. Participants are asked to place (sort) these cards into their own categories or categories supplied by the researcher (such as 'not felt', 'felt to some extent', 'felt strongly' and 'felt most strongly'), the latter being referred to as a constrained card sort (Rugg and McGeorge, 2005). Such researcher supplied categories aid comparison of responses across participants, although it is important to ensure that those provided are both realistic and understandable. It is this form of card sort, where categories are supplied by the researcher, which is the focus of this chapter.

Within the research methods literature limited advice exists on the use of card sorts, a notable exception being Rugg and McGeorge (2005). In their 'tutorial' article on sorting techniques they begin to address this, highlighting how, compared to related techniques such as repertory grids (see chapters ## and ## in this volume), sorting techniques have received little formal attention. Commencing with advice regarding choice and number of items to be sorted, they suggest these can be derived through either preliminary research or from the literature, stressing that items should be from within the same horizontal level in a hierarchy; for example employees' emotional responses to organizational change. They state there should be no fewer than eight items and a maximum of between 20 or 30 items for single criterion repeated sorts. However, they also add that a greater number of items can be used in some circumstances, as illustrated later in this chapter.

Once items have been chosen they need to be prepared for physical sorting by participants. Rugg and McGeorge (2005) advise: When preparing cards, all should be the same size, words or phrases on every card being printed using the same font and font size. Each card should be given a code number to aid the recording process, printed preferably on the back so as not to interfere with the sorting process. Where a constrained sort is used, they advise the researcher to provide clear labels for each category into which the cards will be sorted. Instructions to the participants regarding sorting criteria should be clear and the process explained precisely by the interviewer. Despite such careful preparation, where cards are sorted more than once, the first sort is likely to cause the most problems, participants being unfamiliar with the process and not always understanding precisely what is required.

For practical reasons I have found it helpful to have an empty table on which the cards can be spread and physically moved during the sorting process. Where participants develop their own categories, it is important that the researcher clarifies precisely the definition the participant is using for each. Advice from Rugg and McGeorge (2005) emphasizes that clarification is best done once the cards have been sorted into categories, as participants often change their minds during this process. Results of a card sort session are usually recorded on paper, noting the details the sort, the categories used and the code numbers of each item sorted into each category. Using code numbers on the back of cards saves considerable time as only the number rather than the precise word or phrase needs to be recorded. These data are subsequently analysed, often quantitatively on their own, providing information on which feelings are felt most frequently and the relative strength of these feelings. However, as noted earlier it can be advantageous to use the card sort as a precursor to a concurrent in-depth interview, to explore the criteria and reasoning for the categorization. Such interviews can allow participants to explain seemingly contradictory strong feelings, for example 'trusting' and 'under pressure', in relation to their own particular context: in this example the need to perform to a high level following promotion (Saunders and Thornhill, 2003).

## **COMBINING CARD SORTS WITH IN-DEPTH INTERVIEWS**

In recent years there has been an increased use of mixed-method designs using a combination of data collection techniques (Bryman, 2006; Tashakkori & Teddlie, 2010). In concurrent mixed-method designs, such as the card sort and subsequent in-depth interview data are collected and analysed in parallel (Creswell et al., 2008). The findings are then integrated for the purposes of either triangulation or complementarity. While triangulation aims only at corroborating data and obtaining convergent validity (Scandura and Williams, 2000), complementarity emphasizes enhancement and clarification through the identification of additional rather than competing interpretations to more fully explain the phenomenon being researched (Hammersley, 2008). Consequently, an in-depth interview offers a way of understanding the reasons for the categorizations uncovered by the card sort. For topics where the researcher does not wish to sensitize the participant to the precise focus of the research, the card sort offers a way of establishing a rank categorization of the items of particular interest such as trust and distrust relative to each other and to other feelings, the in-depth interview allowing the underlying reasons to be explored.

Inevitably, the combining of a card sort with in-depth interviews means quantitative (rank) data are used in conjunction with quantitative (interview) data. This has been the subject of considerable epistemological debate since the early 1970s (Bryman 2006), some researchers arguing that the two methods are incompatible. However, in recent years there has been an increased use of mixed-method designs. Such hybrid methods (Edmondson and McManus, 2007) add value by providing additional complimentary data and thereby increasing interpretive power.

Mixed-method designs have been used by trust researchers to support understanding (e.g. Norman, 2010; see also Chapter ?? in this volume), qualitative data providing additional explanatory capability (Möllering, 2006; Saunders et al., 2010). In particular empirical mining of qualitative data has allowed meanings to be attributed to quantitative data (Nooteboom, 2006; Currall and Inkpen, 2006). Use of a concurrent card sort and in-depth interview (discussed next) integrates a quantitative constrained card sort of a variety of possible feelings in relation to an organisational situation or event with a qualitative subsequent in-depth individual interview to explore and understand each participant's reasons for their categorisation represented by the sorted cards. It therefore collects data that establishes the relative strength of different feelings, including trust and distrust, alongside the reasons for these within a specified context. During the card sort participants are asked to sort a randomly presented set of between forty and fifty cards according to the strength each is felt. Each card reports a different feeling that might be experienced in relation to an organisational situation. The words and phrases on the cards reflect the range of possible emotions and moods in response to similar situations being derived from previous research.

## **PERSONAL EXPERIENCE OF THE CARD SORT AND IN-DEPTH INTERVIEW IN TRUST BASED RESEARCH**

In some of my work on trust, particularly that undertaken with Adrian Thornhill, a structured card sort of possible responses to change has been integrated with a subsequent audio recorded in-depth interview to explore and explain the reasons for each participant's categorization of responses and interpretation of the associated contexts. To date the approach has been used to research the strength of trust relative to other feelings (Saunders and Thornhill, 2003; Saunders 2011); whether trust and distrust are symmetrical, occurrence of one precluding the other (Saunders and Thornhill, 2004) and, currently, whether trust and distrust judgments entail conceptually different expectations and anticipated independent outcomes and the reasons for these (Saunders et al., 2014). This research has been undertaken with participants selected using either probability or non-probability sampling.

In its most recent incarnation, the card sort involves each participant sorting 49 randomly presented cards that each expresses a possible feeling that might be experienced in relation to the organizational situation. Cards are worded in the active voice; for example 'sceptical' rather than "scepticism". Feelings include 'trusting' and 'distrustful', 12 expressions and manifestations of trust and distrust identified by Lewicki et al. (1998) and 35 emotions identified and used by Saunders and Thornhill (2004) having been derived from literatures relating to the psychology of stress and emotion. Whilst these responses have been used successfully when the focus has been on trust and internal change, colleagues and I have also used a card sort followed by an in-depth interview (with a variation in the cards sorted) to explore external organizational change situations, for example mergers and acquisitions in the hospitality industry (Saunders, Altinay and Riordan, 2009).

Research is conducted in accordance with established ethical principles, participation being voluntary. Audio recording is used only with permissions, interviews being transcribed subsequently. Assurances of anonymity are offered and the research purpose explained to the participant, for example to establish and understand her or his 'feelings in relation to the managed change at the organization', it being stressed there are no wrong answers. By not explicitly referring to trust, participants are not sensitized to either trust or distrust.

[Insert fig. 1 about here]

For the first sort each the participant is given the complete set of cards and asked to categorise the possible feelings by physically placing each card under either the heading 'do not feel' or the heading 'feel to some extent' (Fig. 1). The research has, to date, left the referent for each participant's feelings unspecified and consequently open for them to select. During sorting, participants are allowed to change their mind, moving cards between the two headings. Following completion of the first sort, those cards that contain a 'feeling' categorised as 'do not feel' are removed and recorded. Each participant is then asked to undertake two further sorts of the remaining cards. In the second sort, participants are asked to categorize the remaining cards under either the heading 'feel to some extent' or 'feel strongly'. Those cards that have been categorized as 'feel to some extent' are removed and recorded. In the third sort participants identify the three cards that they 'feel most strongly' from those they categorized as 'feel strongly'. These cards are subsequently removed and recorded. Although the cards are presented at random, the recording sheet design places those feelings that earlier research suggested were likely to be related in close proximity. This helps potential patterns in the rankings that emerge to be seen more easily, thereby aiding subsequent interviews.

The quantitative data is derived from each participant's categorization of each feeling using a four point ordinal scale. These ranked feelings draw directly on the change experience of each participant, providing not only a sense of validity but, through the card sort data collection sheet, a means to ground and explore these feelings through the in-depth interview. Each interview flows seamlessly from the card sort, commencing with the participant discussing their reasons for categorizing the three feelings 'felt most strongly' (fig. 1). Where not amongst those categorized as felt most strongly, the selection and relative positions of feelings of 'trusting' and 'distrustful' is introduced using the question '...I've notice that you categorized... .. can we talk about this?' This allows the structure for each interview to be grounded in each participant's categorization of the emotions that he or she had experienced because of organizational change, involving a form of participant validation during the interview (Pidgeon, 1996). Participants are encouraged to discuss and explain their response in the context of their own perceptions of the changes. This allows their trust reactions to be described and explored from a grounded and subjective perspective. Because the relative rankings of each participant's feelings are introduced in a manner that is precisely related to their own responses, reasons for the selection and relative positions of seemingly

contradictory feelings can be explored. Within such explorations participants invariably reveal the referents for their feelings, including trust and distrust, as well as providing other insights.

## DISCUSSION

This chapter has outlined how a card sort can, in combination with an in-depth interview be used to ask questions about sensitive issues such as trust and distrust. Initially I have outlined the overall purpose of research as to establish and understand the participant's 'feelings about the managed change at [organization name]', it being stressed there were no wrong answers. Within my accompanying explanation I have tried to provide sufficient information to enable each participant to decide whether or not to consent to take part, offering further clarification as requested without sensitising them to issues of trust and distrust. Subsequently the use of the card sort provides an opportunity to build rapport with each participant and gain her or his trust through an exercise, which my experience suggests, is actively enjoyed. The physical sorting of feelings into different categories appears to break down barriers between the researcher and participant, responses to participants' questions about the process such as 'can I change my mind?' and 'what do you mean by...?' allowing the researcher to further emphasise the focus on each participants' views and the meanings they attribute to individual feelings. Where participants are reluctant to categorize a feeling or are having difficulties, this is usually apparent through non-verbal cues such as hesitation or moving a card between categories. Here I have found that reassurances to take as much time necessary are helpful, where necessary suggesting they might consider leaving the card until others have been categorized within the sort.

The card sort draws directly on the experience of each participant, providing not only a sense of validity but also a subsequent means to explore these through the in-depth interview. As participants undertake their sort, they often provide a short commentary to support their categorizations, which can offer clues regarding possible subsequent interview questions. The concurrent in-depth interviews allow these categorizations to be explored and understood in the contexts from which they are derived, building upon these data to ground each participant's feelings of trust and/or distrust. By focussing initially upon categorizing feelings through a card sort, participants are not sensitized to trust. Consequently, it has been possible to collect data on the strength of trust relative to other feelings and, in particular, to explore whether trust and distrust are symmetrical, occurrence of one precluding the other. As outlined above, incorporation of theoretically derived expressions and manifestations of trust and distrust (Lewicki et al., 1998) has enabled the testing of whether trust and distrust judgements entail conceptually different expectations and anticipated outcomes (Saunders et al., 2014).

Simultaneous collection of in-depth interview data allows referents for trust and distrust to be established. It also reveals that different participants can select the same highly ranked feelings for completely different reasons. This is important as, in addition to allowing the meanings attributed to each card to be compared, the interviews also provide insights regarding how a range of factors can impact upon trust. For example, the reasons for categorizing 'trusting' as 'most strongly felt' were, although diverse, related to how change had impacted positively on their working lives. Reasons given included improved job security, greater autonomy and a better understanding of what is happening (Saunders and Thornhill, 2004).

Combining data from the card sort with data from in-depth interviews is particularly beneficial to study phenomena such as trust, which may be affected by equivocality (unclear meaning) or ambivalence (mixed feelings) amongst participants. The use of an in-depth interview alongside a card sort allows the researcher to ensure she or he has the same understanding

of the words or phrases on the cards as the participant. Not sensitising these participants to any particular feelings, allows situations where what might be considered an unusual relationship of mixed feelings such as trust and distrust to surface. These can subsequently be explored in the in-depth interviews.

Invariably, if working within a pragmatist philosophy, the adoption of concurrent mixed-method is dependent upon its suitability to answer the research question. Hence, trust researchers first have to justify why their particular research question would benefit from this method. In addition trust researchers need to demonstrate how the data can be integrated to provide fuller understandings and additional insights. Both aspects are important as the use of a card sort and in-depth interview requires considerable preparation. In addition, my experience and that of my colleagues indicates that undertaking one card sort with an associated in-depth interview takes between 60 to 90 minutes with each participant. Finally, it is important to be mindful that asking questions about sensitive topics, such as trust or distrust can cause stress to the participant. As researchers we need to be aware of this and plan accordingly ensuring that, where necessary, counselling support can be made available for participants.

## REFERENCES

- Arksey H and Knight P (1999) *Interviewing for Social Scientists*. London: Sage.
- Bryman, A. (2006). 'Editor's Introduction: Mixed Methods Research.' In A. Bryman *Mixed Methods Volume 1*, XXV-LII.
- Butt, T. (2008) *George Kelly: The Psychology of Personal Constructs*. Basingstoke: Palgrave MacMillan.
- Creswell, J.W., Plano Clark, V.L., and Garrett, A. L. (2008). 'Methodological Issues in Conducting Mixed Methods Research Designs. In M.M. Bergman (Ed.), *Advances in Mixed Methods Research*. Thousand Oaks: Sage Publications, 66-83.
- Crowne, D.P. and Marlowe, D. (1964). *The approved motive: Studies in evaluative dependence*. New York: Wiley.
- Currall, S.C. and Inkpen, A.C. (2006). 'On the complexity of organizational trust: a multi-level co-evolutionary perspective and guidelines for future research.' In R. Bachmann and A. Zaheer (eds) *Handbook of trust research*. Cheltenham: Edward Elgar, 235-46.
- Dalton, D.R., Daily, C.M., and Wimbush, J.C. (1997) 'Collecting sensitive data in business ethics research: A case for the unmatched count technique'. *Journal of Business Ethics*. 16 1049-1057.
- Edmondson, A. C. and McManus, S. E. (2007). 'Methodological Fit in Management Field Research'. *Academy of Management Review*, 32.4: 1155-1179
- Fincher, S. and Tenenbergs, J. (2005). 'Guest editorial: Making sense of card sorting data'. *Expert Systems*. 22(3) 89-93.
- Hammersley, M. (2008). 'Troubles with Triangulation'. In M.M. Bergmann (Ed.), *Advances in Mixed Methods Research*. Thousand Oaks: Sage, 22-36
- Kelly, G.A. (1955). *A Theory of Personality: The Psychology of Personal Constructs*. New York: WW Norton.
- Kvale, S. and Brinkmann, S. (2009). *InterViews: Learning the Craft of Qualitative Research Interviewing*. Los Angeles, CA: Sage
- Lee, R.M. (1993). *Doing Research on Sensitive Topics*. London: Sage.
- Lewicki, R.J., McAllister, D.J. and Bies, R.J. (1998). 'Trust and distrust: New Relationships and Realities' *Academy of Management Review*, 23.3, 438-58
- Möllering, G. (2006). *Trust: Reason, Routine, Reflexivity*. Oxford: Elsevier.



- Nooteboom, B. (2006). 'Forms, sources and processes of trust.' In R. Bachmann and A. Zaheer (eds) *Handbook of trust research*, Cheltenham: Edward Elgar, 247-63.
- Pidgeon, N. (1996). 'Grounded theory: theoretical background'. In Richardson, J.T.E. (Ed), *Handbook of Qualitative Research Methods for Psychology and the Social Sciences*, Leicester: BPS Books. 75-85.
- Rugg, G. and McGeorge, P. (2005). 'The sorting techniques: a tutorial paper on card sorts: picture sorts and item sorts'. *Expert Systems* 22.3, 94-107
- Saunders, M.N.K. (2011). 'Trust and strategic change: an organizational justice perspective' in R. Searle and D. Skinner (eds) *Trust and Human Resource Management*. Cheltenham: Edward Elgar, 268-286
- Saunders, M.N.K., Altinay, L. and Riordan, K. (2009). 'The management of post-merger cultural integration: implications from the hotel industry'. *Service Industries Journal* 29.10, 1359-75
- Saunders, M.N.K., Dietz, G. and Thornhill, A. (2014, forthcoming). 'Trust and distrust: polar opposites, or independent but co-existing?' *Human Relations*
- Saunders, M., Lewis, P. and Thornhill, A. (2012). *Research Methods for Business Students*. (6<sup>th</sup> edn) Harlow: Pearson Education.
- Saunders, M.N.K., Skinner, D., Gillespie, N., Dietz, G. and Lewicki, R.J. (eds) (2010). *Organisational trust: a cultural perspective* Cambridge, Cambridge University Press.
- Saunders, M.N.K. and Thornhill, A. (2003). 'Organisational justice, trust and the management of change: An exploration'. *Personnel Review*. 32.3, 360-374.
- Saunders, M.N.K. and Thornhill, A. (2004). 'Trust and mistrust in organisations: An exploration using an organisational justice framework.' *European Journal of Work and Organisational Psychology*, 13.4, 492-515.
- Scandura, T.A. and Williams, E.A. (2000). 'Research Methodology in Management: Current Practices, Trends, and Implications of Future Research.' *Academy of Management Journal*, 43.6, 1248-1264.
- Tashakkori, A. and Teddlie, C. (2010). *Sage Handbook of Mixed Methods in Social and Behavioral Sciences* (2<sup>nd</sup> edition). Thousand Oaks, CA: Sage.
- Van Der Heijden, P.G.M., Van Gils, G., Bouts, J. and Hox, J.J. (2000). 'A comparison of randomized response, computer-assisted self-interview, and face-to-face direct questioning: Eliciting sensitive information in the context of welfare and unemployment benefit.' *Sociological Methods and Research* 28.4 505-537.
- Whaley, A.L. and Longoria, R.A. (2009). 'Preparing Card Sort Data for Multidimensional Scaling Analysis in Social Psychological Research: A Methodological Approach.' *The Journal of Social Psychology*, 2008, 149.2, 105-115.

## ANNOTATED FURTHER READING

- Rugg, G. and McGeorge, P. (2005). 'The sorting techniques: a tutorial paper on card sorts: picture sorts and item sorts'. *Expert Systems* 22.3, 94-107. –paper offering one of the few overviews of sorting techniques along with practical advice regarding conducting a sort.
- Saunders, M.N.K. and Thornhill, A. (2004). 'Trust and mistrust in organisations: An exploration using an organisational justice framework'. *European Journal of Work and Organisational Psychology*, 13.4: 492-515. –paper using a card sort and in-depth interviews concurrently to explore perceptions of trust and distrust in an organizational setting.
- Saunders, M.N.K., Dietz, G. and Thornhill, A. (2014, forthcoming). 'Trust and distrust: polar opposites, or independent but co-existing?' *Human Relations*. –paper using a card sort and in-depth interviews concurrently to test whether trust and distrust judgements are 'symmetrical' or whether they can occur 'simultaneously' as separate constructs; and, secondly, whether trust and distrust judgements entail the same or conceptually different expectations using two contrasting organisations.

**Fig. 1: The card sort and in-depth interview approach**

