CAPTURING CONSTRUCTS IN A POST-COVID WORLD: A RESEARCH NOTE ON THE REMOTE ADMINISTRATION OF REPERTORY GRIDS

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This paper reviews the Remote administration of Repertory Grid technique in which Excel spreadsheet and videoconferencing software with screen sharing capabilities were utilized. The experience and quality of results of Remote and Direct administration are compared and discussed; possible advantages of Remote over Direct administration are examined. This approach differs from Remote computer-based administration methods reviewed in the literature hitherto; it is hoped that this paper will be of value to researchers who may need to adjust to the new post-COVID-19 conditions, where Direct administration of Repertory Grid may not be possible due to travel restriction and social distancing limitations.

Keywords: *Managerial Sensemaking, Ambidexterity, Repertory Grid, Interviews, Videoconferencing, COVID-19.*

INTRODUCTION

Scientometric reviews of Personal Construct Theory (PCT) and its chief associated technique, the Repertory Grid, suggest a steady growth in multiple fields of research and application (Neimeyer, Baker, & Neimeyer, 1990; Saúl, López-González, Moreno-Pulido, Corbella, & Feixas, 2012), with the occupational applications reflecting this trend (Jankowicz, 1990; Cornelius, 2016), as constructivist researchers explore how people construe important issues in these fields.

With the recent changes in business and academic environment triggered by the COVD-19 pandemic, it becomes paramount to understand techniques that researchers can successfully utilize when Direct interaction between a researcher and an interviewee is impossible. Relatively little research has been published on the use of videoconferencing for Repertory Grid interviews. The present study, conducted in partial completion of a doctoral programme (see Yamnitsky, 2020) compared the way in which two distinct kinds of innovation project are construed, taking the data in two ways: by Direct and Remote interview.

It addressed *Exploitative Innovation* projects (those aimed at defending the core business by increasing efficiency while reducing risk) and *Exploratory Innovation* projects (those aimed at discovering new business opportunities through exploration and harnessing new technology trends); *Ambidexterity*, the ability to engage in both forms, was a particular focus of the study (see Christensen, 1997; Gibson & Birkinshaw, 2004; O'Reilly & Tushman, 2008).

In the case study on which the current study is based,14 middle managers were interviewed directly, while 11 managers were interviewed remotely, using a software tool that permits videoconferencing and screen sharing GoToMeeting[1]. Microsoft Excel was used to record the grid data in preference to conventional elicitation software such as RepPlus, or Idiogrid, since it offered a screen-sharing interface familiar to professionals in the IT industry in which the study was conducted.

[1] https://www.gotomeeting.com/

LITERATURE

Organizational Ambidexterity

Innovation is key to a company's survival (Bower & Christensen, 1995), particularly the form that introduces new products and services to the market – exploratory innovation (Christensen, 1997). Companies with existing products in established markets often struggle to organize in a way that allows them to protect their existing revenue streams while exploring new product and services opportunities; doing both at the same time is difficult, but valued since it enables companies address high demand current needs and anticipate future needs (Teece, Peteraf, & Leih, 2016).

There are multiple ways to organize for ambidexterity, and companies who succeed at it see superior financial performance and an improved market position (Gibson & Birkinshaw, 2004; Solís-Molinaa, Hernández-Espallardob, & Rodríguez-Orejuela, 2018).

Exploratory innovation projects involve significantly higher risk due to the uncertainty involved and require a different set of techniques (procedures to be followed) and metrics (quantitative measures used to measure progress) to those used in exploitation (Baghai, Coley, & White, 2000; Blank, 2015).

When exploratory innovation projects are initiated, managers – who are often the ones to make decisions about approaches to be used on projects – may not recognize the different context they operate in when dealing with an exploratory project, and as a result, may not choose a more appropriate approach for the circumstances (see Yamnitsky, 2020). To succeed with exploratory innovation, and handle ambidexterity, managers should recognize the difference between the two types of project, evaluate the type of project at hand, and choose a more appropriate approach – a combination of techniques and metrics for that project.

Construing Innovation

It is therefore important to understand the ways in which managers make sense (Weick et al., 2005) of innovation, ambidexterity, and the context in which they operate when shaping strategy and tactical decision-making (Plambeck, 2012). Managerial decision making is tied to managers' perception and interpretation of the environment they are in (Weick, Sutcliffe, & Obstfeld, 2005; Xu, 2011), especially in conditions of uncertainty (Teece et al., 2016).

To understand how managers think about certain issues and events in their own terms we draw on Personal Construct Theory (PCT) (Kelly, 1955, 1963). An understanding of the stance taken when choice alternatives are addressed depends on an understanding of how these alternatives are construed by the individuals involved. This construing may not be clear, explicit, and propositionally stated, especially in conditions of uncertainty, and PCT is particularly well suited to the identification and capture of the tacit knowledge involved (see Fransella, 2003; Jankowicz, 2001).

Given the pressures encountered in commercial, day-to-day product development, a reliance on the unreflective use of well-established traditional project management approaches is understandable but may prevent the openness to alternative possibilities required in the exploratory innovation process. The identification of tacit knowledge, and the value of reflection on one's implicit models of working procedure, are increasingly emphasised (see e.g. Bennet & Bennet, 2008; Williams & Mackness, 2014).

Eliciting Tacit Assumptions

The interview is one of the most common techniques utilized by qualitative researchers (Merriam, 1998; Yin, 2017), and is particularly important when building the 'rich picture' of a phenomenon when Case Study is the chosen research method (Cristancho, Bidinosti, Lingard, Novick, Ott, & Forbes, 2015). Where the intention is to study personal understanding on an individual basis, the standard interview, is usefully supplemented, or indeed replaced by, the Repertory Grid, (see Kelly, 1963), particularly where the intention is to surface the tacit knowledge of the interviewees (Fransella, Bell, & Bannister, 2004; Jankowicz, 2004).

A carefully structured repertory grid interview, with a clearly announced Topic, Elements representing instances reflecting different aspects of the Topic, Constructs elicited triadically,

with the position of Elements on Constructs indicated by ratings on a 5-point scale, structures the interview in a way that maximises the interviewee's influence on the issues seen as important in the interviewee's sense-making about the Topic in question.

Remote Interviews Using Videoconferencing

Digital communications in general, and videoconferencing in particular, have become more popular in qualitative research in recent years as relevant technology tools became more mature and ubiquitous (Weller, 2017). We see these tools as integral in both our professional and everyday lives, yet in-person interaction is still seen as the 'gold standard' when it comes to interviews in qualitative research (see Johnson, Scheitle, & Ecklund, 2019; Weller, 2017).

An increasing body of knowledge on the use of videoconferencing has appeared in the recent years (e.g. Johnson et al., 2019; Magni, 2010; Sedgwick & Spiers, 2009; Weller, 2017), as researchers increasingly started utilizing tools like Skype (e.g. Dudding, 2009; Iacono, Symonds, & Brown, 2016) and Zoom (e.g. Archibald, Ambagtsheer, Casey, & Lawless, 2019) for Remote administration of interviews. Main benefits cited by most authors are cost-efficiency and the ability to reach interviewees internationally and in remote locations.

But opinions are divided. Some argue that videoconferencing is an adequate approach for conducting an interview (Dudding, 2009) and is equivalent in the richness of information and quality of data to an in-person interview (e.g. Jenner & Myers, 2019), especially when the quality of internet connection is high (Sedgwick & Spiers, 2009; Weller, 2017) and the topic does not involve communicating sensitive information by an interviewee (Sedgwick & Spiers, 2009). Others claim that videoconferencing can be inferior to in-person interviews, due to difficulties with establishing rapport, reading non-verbal cues (Seitz, 2016), creating a feeling of real connection (Adams-Hutcheson & Longhurst, 2017; Seitz, 2016), and may come at cost of richness of information (Johnson et al., 2019).

That said, even the latter school of thought does not discount Remote interviews completely. Instead, it calls for methodological design issues to be considered to address these concerns; issues that can be particularly well addressed by a suitably structured grid.

While a great variety of specialist software tools has been available for the capture and analysis of grid information since the 1960s, (Heckmann & Bell 2016, p. 369; Denicolo, Long & Bradley-Cole 2016, p. 212), literature on Remote elicitation is sparse, Magni (2010) being the most frequently cited. Magni used Microsoft Live Meetings as the video-conferencing medium, a sentence completion task for construct elicitation (Grice, Burkley, Wright, & Slaby, 2004) and the Idiogrid software package (Grice, 2002) for analysis. Adobe Connect software was used as the medium by Campbell (2015), with an Excel spreadsheet for capture of repertory grid data using triadic comparison in the usual way, and without sharing the spreadsheet with an interviewee during elicitation.

The concern to reduce the perceived impersonality in videoconferencing is clear: Magni used the sentence completion task instead of a repertory grid, and Campbell a spreadsheet rather than a specialist grid elicitation package for this reason.

METHODOLOGY

The doctoral research referenced in this paper adopted a Constructivist epistemology (Kelly, 1955, 1963) using Case Study method (Yin, 2017), since its objective was to explore how managers construe innovation projects. A standard procedure, using an Excel spreadsheet for data capture and analysis was used with the two groups of 14 (Direct) and 11 (Remote) interviewees, who comprised managers from Product Management and Engineering functions working at both strategic (Senior Directors and VPs) and tactical (Managers and Senior Managers) levels, the aim being to capture around 300 constructs, a number sufficient to achieve saturation in the content analysis of the pooled sample's constructs (see Garcia-Martínez, Payán-Bravo, & Moreno-Rodríguez, 2019; Jankowicz, 2004; Pankratz & Basten, 2014).

A typical purposive sampling approach (Merriam, 1998) was used for this research, focusing on middle managers who were leading or have previously led both exploratory and exploitative innovation projects. Remote vs. Direct participation was convenience based (Merriam, 1998), according to a participant's location and the researcher's ability to reach them. A single interviewer (the researcher) conducted all the interviews.

As with most purposive sampling in case study work, generalisation of findings is not from a sample representative of a population, but from the cases studied to others in similar circumstances to which similar theoretical expectations apply – 'Analytic Generalisation', Yin (2017, p. 37). With respect to Direct vs. Remote elicitation, the expectation was of no differences in richness and quality of the data, as indicated by the number of constructs obtained, together with their cognitive complexity, provided that key methodological design concerns are adequately addressed (see Johnson et al., 2019), and where the topic of discussion is not of sensitive or personal nature (see Sedgwick & Spiers, 2009).

After initial contact to brief interviewees and agree on elements, the Direct group's grid interview progressed in the usual way (Jankowicz, 2004). The Remote meetings started with the interviewer hosting a GoToMeeting session with video streaming turned on from both ends; the session was recorded, with the interviewee's permission to do so, in order to generate a transcript of the session, and a Microsoft Excel spreadsheet containing an empty grid was shared over GoToMeeting. The researcher first spent a few minutes explaining the overall elicitation and data recording procedure with examples from a field unrelated to the topic of the interview. This approach helped to put interviewees at ease, as was apparent from their feedback at the end of the interview.

Conversely, during the Direct interviews, the researcher was seated opposite the interviewee, and used a pre-printed empty grid form which he filled out by hand throughout the interview.

Three key procedures, familiar enough in conventional, Direct grid administration, were carefully followed in equal measure with both groups and proved particularly helpful providing the richness of information, gained through detailed interaction, which Johnson et al. (2019, pp. 13-14) regard as essential if Remote interviews are to succeed.

a) Reflection on Elements

Six projects were used as elements: three exploratory innovation projects and three exploitative innovation projects; two 'ideal' projects were added (ideal exploratory and ideal exploitative), to assist in the usual analysis of distances in the cluster analysis which followed (Jankowicz, 2004; Garcia-Martínez et al., 2019).

The inclusion of the 'Ideal' elements in the triads offered for construct elicitation proved useful in focusing the interviewee's attention on their priorities and encouraged a careful consideration of how elements were to be rated in the constructs elicited (see Fransella 2003, pp. 109-111). Particular attention was paid to the element that had received ratings most similar, and most dissimilar, to the supplied, 'ideal' elements. The outcomes of this element analysis are described in Yamnitsky (2020, pp. 144-157).

b) Reflection on Constructs

An 'overall construct' was supplied by the researcher to establish each individual interviewee's basic stance on the issue under investigation, (the effectiveness of techniques and metrics used in exploratory and exploitative innovation projects). This was worded as follows: "*Overall, approaches used were more effective for project success vs. Overall, approaches used were less effective for project success*" (see Yamnitsky, 2020, p. 89). A comparison of each individual's ratings of elements on a supplied construct, with the individual's ratings of elements on the elicited constructs, is an important part of a content analysis when meanings shared across a group of interviewees are aggregated (see Honey, 1979a, 1979b for the rationale, and Yamnitsky 2020, pp. 125-141 for the group results).

During the elicitation process itself, however, the provision of an 'overall' construct serves to prompt careful thought about which constructs are particularly important to that individual's basic stance on the issue of effectiveness. The outcomes of this content analysis are described in Yamnitsky (2020, pp. 125-141).

c) Reflection on Intended Meaning

Following the usual triadic elicitation of each construct (Fransella et al., 2004), a 'laddering down' procedure (Jankowicz 2004, pp. 64-66) was used to arrive at a more detailed and specific expression of each construct prior to rating each element on a 5-point scale. Interviewees vary; asked to consider a triad of elements, some may respond with precision and detail; some may struggle to express their construct clearly and in sufficient detail to be understood by the interviewer; and some may never have previously encountered the need to formulate what is an entirely novel construct (Jankowicz, 2019). Laddering down, and a careful discussion of the construct as finally recorded, are particularly important in obtaining a clear, publicly comprehensible description of the interviewee's intended meaning.

At the end of the session, the interviewee was asked to review their material, to ensure that the intended meaning had been conveyed in what is a delicate process of 'negotiation over meaning' (see Jankowicz, 2019).

FINDINGS

The chief empirical findings of the strategic versus tactical interview group comparison, together with a triangulation study of outcomes using Key Informant Interviews, is reported in Yamnitsky (2020) as indicated above; here we focus on a comparison of the Direct versus Remote procedural outcomes

While none of the managers interviewed had experience participating in the RGT-based elicitation, most found it quite intuitive; a total of 307 constructs were elicited from the 25 participants as described in Table 1 below.

Table 1. Data Collection Summary

Approach		Number of Constructs	Interview Length (min)
Direct	Total	179	670
	Average	12.8	47.9
Remote	Total	128	525
	Average	11.6	47.7
Overall	Total	307	1195
	Average	12.28	47.8

As can be seen from this table, the average number of constructs elicited with Direct elicitation (12.8) was only marginally higher than the average number of constructs elicited with Remote elicitation (11.6), with the average interview time also being similar (47.9 minutes vs. 47.7 minutes).

Moving beyond the kinds of frequency count offered as evidence of richness in the Johnson et al. (2019) comparison of Direct versus Remote interview data, we focus on meaning. Figures 1 and 2 serve to exemplify the level of detail and specificity of the constructs elicited to demonstrate the comparability of detail of constructs in both groups.

Figure 1. Direct Interview Example

In this interview we will use a technique called Repertory Grid. With this technique, we will be capturing how you think about exploratory (novel) and exploitative (incremental) projects. These will be a series of opposites which are called constructs. Example: "more successful" vs. "less successful" is a construct. Our focus is on factors that make a project successful in terms of techniques and metrics associated with projects. Your confidentiality and privacy is guaranteed, and this grid will be coded for anonymity. This form will be sent back to you for review and signature to make sure you agree with the information captured.	Project A - Exploratory	Project B - Exploratory	Project C - Exploratory	Project D - Incremental	Project E - Incremental	Project F - Incremental	Ideal Incremental Project	Ideal Exploratory Project	In what follows, I will be asking you to compare 3 projects at a time, and will ask you to tell me in what way are two of them are similar, and different from the third. You're thinking of particular projects now or in the past, at this company. Bear in mind that each project has it's own nuances, and that the business environment and circumstances vary, so that different constraints impact how you approach setting the project up for success. What sort if things happened with these projects, that made a difference between a successful and a less successful outcome? In your response please consider things like approach used to drive the project, or the way the project success was measured. _____ Let's take projects X, Y, and Z. In what way two of them are alike in some way, and different from the third, in terms of what approaches make for effective management of these projects?
ELICIT CONSTRUCTS	E1	E2	E3	E4	E5	E6	E9	E10	RATE CONSTRUCT BY CONSTRUCT
Overall, approaches used were more effective for project success	2	1	5	2	4	2	1	1	Overall, approaches used were less effective for project success
Business-minded value outcome	1	3	5	2	4	1	2	1	Technology in a search of a solution
Clear KPIs established at the outset	2	1	5	3	5	2	2	2	No clear KPIs established at the outset
Customer-driven input early in the project	1	1	3	2	4	3	3	1	Customer input/validation before shipping
Product managers not co-located with Engineering	4	5	1	3	5	4	4	4	Product managers co-located with engineering
Had no financial KPIs associated with outcomes	4	4	2	5	1	4	3	4	Clear financial metrics associated with outcomes
Strong Design & User Research teams collaboration	1	2	1	4	3	2	3	1	Little to no Design and User Research involvement
Design team deeply understands the problem space	1	1	3	2	4	2	3	1	Design team's involvement is limited to basic UI design
Rigorous backlog management with respect to prioritization and grooming	1	2	4	1	5	2	2	2	No rigorous backlog management process
Objective way to prioritize based on prioritization frameowrk like RICE	2	4	5	4	4	2	4	1	No clear prioritization framework
Clear executive sponsorship to protect resources	1	3	4	3	5	3	4	2	No clear executive sponsorship
Strong cross-company buy-in	1	3	3	1	4	2	3	2	Most teams were indifferent
Get to a shippable increment/MVP as soon as possibvle to have people experience the product	3	2	4	2	5	2	3	1	Wait too long to ship
Have empathy with personas you are trying to impact/serve	1	2	4	2	5	2	4	1	Not connecting with the persona you are trying to impact/serve

The transcripts reveal the way in which screen sharing simplified the process by which rating directionality was checked. Thus, having started to rate the elements on a construct, the interviewee might say "*oh, wait, does '1' stand for the least and '5' the most on this construct, or is it the other way around?"*. Seeing the grid on their screen after constructs and ratings had been typed in to the Excel sheet by the interviewer, made it easier for the interviewee to recognise a mistake in capturing their intended meaning, and to quickly amend the construct appropriately, than with the Direct elicitation procedure in which the grid is compiled by the interviewer, often in semi-readable handwriting, and who retains possession of the grid record sheet.

Cognitive Complexity of participants was of particular interest to this study, since there are indications that entrepreneurs in high-tech industries possess a higher degree of cognitive complexity that non-entrepreneurs (see Xu, 2011). Hence, the researcher was interested to compare the cognitive complexity of managers with more experience of exploratory innovation projects (those more closely resembling projects entrepreneurs deal with) with that of managers who had greater experience with exploitative innovation projects.

Figure 2. Remote Interview Example

In this interview we will use a technique called Repertory Grid. With this technique, we will be capturing how you think about exploratory (novel) and exploitative (incremental) projects. These will be a series of opposites which are called constructs. Example: "more successful" vs. "less successful" is a construct. Our focus is on factors that make a project successful in terms of techniques and metrics associated with projects. Your confidentiality and privacy is guaranteed, and this grid will be coded for anonymity. This form will be sent back to you for review and signature to make sure you agree with the information captured.	Project A - Exploratory	Project B - Exploratory	Project C - Exploratory	Project D - Incremental	Project E - Incremental	Project F - Incremental	Ideal Incremental Project	Ideal Exploratory Project	In what follows, I will be asking you to compare 3 projects at a time, and will ask you to tell me in what way are two of them are similar, and different from the third. You're thinking of particular projects now or in the past, at this company. Bear in mind that each project has it's own nuances, and that the business environment and circumstances vary, so that different constraints impact how you approach setting the project up for success. What sort if things happened with these projects, that made a difference between a successful and a less successful outcome? In your response please consider things like approach used to drive the project, or the way the project success was measured. _____ Let's take projects X, Y, and Z. In what way two of them are alike in some way, and different from the third, in terms of what approaches make for effective management of these projects?
ELICIT CONSTRUCTS	E1	E2	E3	E4	E5	E6	E7	E8	RATE CONSTRUCT BY CONSTRUCT
Overall, approaches used were MORE effective for project success	3	2	1	3	2	3	1	1	Overall, approaches used were LESS effective for project success
Had several intended outcomes	1	3	5	4	4	3	5	3	Had one specific outcome
Required market understanding	1	1	5	1	2	4	4	1	Required technical understanding
Fell into a single product line in terms of teams working on it	1	1	3	3	2	1	1	3	Fell into multiple producft lines
Had to focus on customers	3	4	5	4	2	1	3	3	Had many internal stakeholders
Followed Agile methodology	1	4	1	5	3	1	1	1	No meaningful methodology followed
Required exec sponsorship	4	1	1	3	3	5	5	1	Did not require exec sponsorship
Required infrastructure changes	1	4	2	5	3	1	5	3	Did not require infrastructure changes
Required UX design	5	5	1	3	5	1	2	4	Did not require UX design
Driven by customer requirements	4	1	5	2	1	3	1	3	Driven by product leadership
Was a relatively small team	3	2	1	3	4	2	1	1	Required a large team
Clearly defined outcomes	4	3	2	1	2	4	1	3	Unclear outcomes
Well defined responsibilities for each member of the team	2	4	1	3	2	3	1	1	Responsibilities loosly deffined or undefined
A well defined system that everyone is using regardless of a particular methodology	1	4	1	3	2	5	1	3	No well defined system to follow
Dedicated resources	2	5	1	2	1	3	2	4	No dedicated resources - split attention (allocating 25% to one thing and 25% to another)
Dependencies and contingincies were not fully understood in advance	2	3	5	4	4	1	5	3	Dependencies and contingincies were fully understood in advance

A variety of complexity measures is available for Repertory Grid based data (Kovårová & Filip, 2015). Here, Principal Componnt Analysis, which evaluates the proportion of variance in the grid that is accounted for by the first two principal components, was chosen as a convenient and straightforward measure, (see Fransella 2004, pp. 119-121).

Table 2. Cognitive Complexity by Interview Approach

Interview Approach	**% Variance Accounted for by the First 2 Principal Components**			
	Lowest	**Highest**	**Mean**	**STD**
Direct n=14	61.3	86	75.5	6.29
Remote n=11	57.9	83.1	73.5	7.3

As can be seen from Table 2, both the Direct and Remote interviews were able to capture a wide range of variability in person's construing, with the difference in mean cognitive complexity being negligible. The outcomes of the complexity comparison of respondents with greater experience of exploratory versus exploitative projects are described in detail in Yamnitsky (2020, p. 143).

DISCUSSION

It is clear that a high level of expertise in interpersonal skills as deployed in the conventional interview (see e.g. King, 2014, and esp. Gillham, 2005, pp. 29-36) is particularly important in Repertory Grid technique. Where the precise nuances of meaning that the interviewee wishes to express in the form of personal constructs are not necessarily evident or clear, surfacing tacit understanding becomes a subtle and careful process of mutual deliberation over the interviewee's intended meaning rather than an extraction of what is self-evidently 'there' (Jankowicz, 2019).

As noted earlier, Johnson et al. (2019) remind us that conventional interviews conducted remotely may not be sufficiently rich to arrive at a detailed examination of the issue involved. The Remote grid interview, if carefully conducted, using as key, three procedures often associated with standard grid technique ('Ideal' elements, 'Overall' constructs, and Laddering down) encourages reflection on elements, reflection on constructs, and reflection on intended meaning, resulting in a 'negotiation of meaning' (Jankowicz, 2019) which, we argue, provide the richness that is otherwise absent in interviews conducted remotely. It is worth noting that the grid study was dealing with personally non-sensitive issues; the caveats expressed by Johnson et al. (2019) and Sedgwick & Spiers (2009) might otherwise still apply, especially if key procedure (c), Reflection on Intended Meaning, were neglected.

The novelty of the approach reviewed here stems from the fact that a simple spreadsheet, visible to both parties in real time by mutual screen sharing, together with the careful use of the standard grid interview procedures outlined above, enabled the grid data to be viewed, amended, and worked with as it was captured, making it extremely visible, easy to follow, and appropriately rich in detail.

Several key conclusions can be made from this experience:

1. Remote elicitation produced results that were comparable to Direct elicitation in terms of (a) detail of constructs, (b) number of constructs during comparable interview time, and (c) the ability to capture the variability in an interviewee's construing (their cognitive complexity of the issue at hand).

2. Computer-based elicitation (using Excel spreadsheet) allowed for the monitoring of rating issues that would have been rather more difficult to detect if the researcher used pen and paper. This corroborates Fromm's argument (see Fromm, 2004) that computer-based elicitation may lead to higher precision of data collected; and extends it to the Remote elicitation situation.

3. Screen sharing has allowed for viewing the entire grid holistically during the interview session, increasing an interviewee's visibility into the data collected. The authors would argue that this approach has increased the interviewee's feeling of participation and ownership.

4. These findings can be generalized to RGT interviews in similar circumstances, where enterprise-grade videoconferencing software with high-definition video and screen sharing can be used (e.g. Zoom, MS-Teams, WebEx), and personally non-sensitive topics are being discussed.

It can be derived from Kelly's 'Sociality Corollary' (see Kelly, 1963), that when social interaction occurs, role relationships (e.g. manager-subordinate, interviewer-interviewee) become more effective to the extent that one person understands the constructs of the other (Kelly, 1963). It follows, that in RGT interview, as a researcher tries to understand an interviewee's constructs, the ability to read non-verbal cues and to develop a rapport with an interviewee (see Jorgenson, 1992) becomes important. It is here that the screen-shared use of an Excel-based spreadsheet for data capture may be more effective than the shared display of data captured by

means of more specialised, Repertory Grid elicitation software as described earlier, since Excel format is likely to be more familiar to a business-professional audience than such tools as RepPlus, Idiogrid, and the like.

The use of videoconferencing tools with high-definition video and stable internet connection are also important to ensure good quality for both the researcher and interviewee.

Additionally, capturing data in Excel has allowed for subsequent data aggregation and manipulation of that aggregated data beyond the facilities provided by the typical Repertory Grid software package. It should be noted, that data collected during Direct interviews was subsequently keyed into Excel spreadsheets for storage and analysis. Further, if required and if the nature of the elements permits, the researcher is able to aggregate all grids in a single spreadsheet and use a combination of Excel functions to perform various analyses conveniently and quickly.

The authors hope that these findings will advance the use of the RGT in both academic and business research, especially at a time when doing business remotely is increasingly the norm.

LIMITATIONS AND FURTHER RESEARCH

At the outset, the research was not designed to be a comparative study of different interview modes; participants were interviewed via videoconferencing depending on their availability and locality.

Due to the nature of their profession, all participants in this research can be described as familiar with the technology involved, operating in a multi-national company that requires them to participate in videoconferencing using multiple different tools several times a day or at least several times a week. The general population will most probably have a wider range of familiarity with the technology, and this might have a bearing on the precision and clarity of the information exchange where Remote data capture is involved, and the videoconferencing software chosen.

As Johnson et al. (2019) and Sedgwick & Spiers (2009) claim, Remote interviews may not be ideal when the topic is of personal or sensitive nature. Future research could evaluate the possibility of having interviewees take control over the Excel spreadsheet in the shared screen, and fill it out by themselves, rather than by a researcher.

Future research could focus on a comparison of aspects of social interaction and their impact on error reduction in construct elicitation between Direct and Remote RGT interviews. Additionally, researchers utilizing RGT could evaluate the difference in cognitive complexity on complex vs. simple issues in Remote vs. Direct interviews.

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Yamnitsky, E., Jankowicz, D. (2020). Capturing constructs in a post-COVID World: A research note on the remote administration of repertory grids. *Personal Construct Theory and Practice, 17,* 1-12.

Received: 2 September 2020 - Accepted: 11 October 2020 - Published: 12 November 2020