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School of Management Studies

Designing Semi-Automated Video Interviews (SAVI): Does Stimulus Format (Video vs. Text) of Instructions and Interview Questions Affect Applicant Perceptions of Social Presence?

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A dissertation submitted in partial fulfilment of the requirements for the award of the Degree of Master of Industrial and Organisational Psychology

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Abstract

A recent novel development in interview technologies is asynchronous video interviews (AVIs). Although AVIs differ in key design aspects, the effect of AVI design characteristics on applicant reactions is not well understood. The primary purpose of the present study was to determine how differences in AVI stimulus format, such as using either video vs. textual stimuli in instructions and interview questions, may influence applicant perceptions of social presence in interviews. Drawing on social presence theory, it was hypothesised that participants who experienced a video-stimuli based AVI will experience higher levels of social presence than those who experienced a text-stimulus based AVI. Furthermore, given a dearth of previous research on the role of individual differences in AVIs, a secondary purpose of the research was to test the potential moderating role of applicants' social presence preferences and their affinity for technology. To these ends, a pre-registered experiment was used in which participants were randomly assigned into an AVI with either video or text-based instructions and interview questions. Participants in both groups completed a mock digital interview, rated their own levels of perceived social presence, and completed the measures of individual preferences. The experiment was repeated in two independent national samples, including respondents from a South African ($N = 58$) sample and an American sample ($N = 162$). The findings revealed mixed results between the two samples. Participants in the SA sample who viewed a video-based AVI perceived higher levels of social presence compared to those who viewed a text-based AVI, suggesting that AVI stimulus format enhanced applicants' perceptions of social presence. However, these findings did not generalise to the USA sample, where video stimuli did not increase respondents' social presence perceptions. Further analyses showed that the study effects did not depend on applicants' preferences for social presence and their affinity for technology. The study contributes to literature on automated video interview design by showing novel insights into the effects of key design features of digital interviews on applicant reactions. Implications for theory are discussed and recommendations for practice and research are made.

Key words: Asynchronous video interview, applicant reactions, social presence perceptions, social presence preferences, affinity for technology, personnel selection

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Chapter 1: Introduction

1.1 Background

In recent years, technological advancements have significantly contributed to changes in how personnel selection and assessment devices are delivered, administered and scored. Online personality tests, cognitive ability tests and web-based interviews have become mainstream practice, with assessments delivered in this medium gaining considerable research attention (Langer et al., 2017; Stone et al., 2013; Vecchione et al., 2012). Asynchronous Video Interviews (AVIs) are among the latest developments in interview technology that have been on the rise. According to Gorman et al. (2018), an AVI is a one-way interview conducted entirely via online platforms. AVIs require applicants to record their responses to a variety of interview questions by means of a webcam and microphone (Basch et al., 2020). Subsequently, the applicants' responses are analysed by human raters or artificial intelligence software (Suen et al., 2020).

Organisations adopt AVIs as an assessment tool due to their significant benefits to both employers and applicants. This includes the ability of raters to analyse the applicant responses at their convenience, more efficient use of time and reduced costs and an extension of the applicant pool (Gorman et al., 2018; Langer et al., 2017; Suen et al., 2020). These demonstrated advantages may result in an upsurge in AVI use. HireVue (<https://www.hirevue.com>), for example, demonstrated a drastic rise in the number of AVIs conducted between 2012 and 2016, with numbers rising from 13 000 to 2.5 million (Greenfield, 2016). As of March 2021, HireVue has hosted more than 20 million virtual interviews. Indeed, AVIs are rapidly becoming a norm in the assessment and selection processes implemented by organisations.

1.2 Research Problems

Although AVIs are becoming more common in the selection process, the rate at which they are being used is concerning considering the lack of AVI research to date (Basch et al., 2020; Gorman et al., 2018; Lukacik et al., 2020). For instance, there has been a lag in research regarding crucial AVI outcomes (for example, applicant reactions) as well as applicants' perceptions of the medium (Basch et al., 2020). Therefore, further research to expand the current AVI literature would be beneficial.

A crucial consideration for organisational researchers is that AVIs do not follow a single format but differ due to unique design characteristics. For example, AVI design characteristics may differ in terms of features such as media, response formatting and evaluation (Lukacik et

al., 2020). Given the variation of AVI designs, it is unclear how the distinct features of AVIs affect interview outcomes (Lukacik et al., 2020). To address this shortcoming, the present study draws on the modular approach by Lievens and Sackett (2017), a framework which can be utilised to understand the effect assessment design and/or method factors on assessment outcomes. In line with the modular framework, an opportunity exists for further research to expand current understanding of how AVI stimulus format, such as reliance on video or text stimuli in instructions and questions, may affect applicants' reactions and behaviours. Empirical evidence on this issue is important as a basis for guiding best practices in future AVI use in industry and research.

Currently, little is known about the effect various AVI stimuli formats have on applicant reactions. Applicant reactions refer to how candidates perceive and respond to various selection tools (McCarthy et al., 2017). For example, interview anxiety and applicant motivation to perform (Lukacik et al., 2020). Importantly, applicant reactions may be associated with applicant perceptions of the organisation (Brenner et al., 2016). In recent years, evidence supporting the relation between applicant reactions and their actual behaviour has been accumulating. For instance, research suggests that applicant reactions may be linked to job performance (Konradt et al., 2017). A critical applicant reaction to consider in AVIs is applicant perceptions of social presence. Social presence can be defined as the degree of salience between communication partners (Short et al., 1976). For example, video conferences have greater social presence than email communication mediums and are seen as warm and sociable. In contrast, communication mediums, such as direct messages, have lower social presence and are viewed as cold and unsociable (Short et al., 1976). Social presence is a construct that may significantly impact an applicants' intention to accept a job offer at the organisation and the likelihood that they will recommend the organisation to others (Lukacik et al., 2020). Therefore, given the rise of AVIs use, research on the effect of AVI stimuli formats on applicants' social presence perceptions is critical to organisations. For instance, if video stimuli significantly increase applicants' perceptions of social presence, organisations could present video stimuli in AVIs to increase the likelihood that applicants will recommend the organisation to others.

1.3 Objectives

Against this background, the present study aims to contribute to organisational research by exploring how differences in video and textual AVI stimuli formats may impact applicant

perceptions of social presence. To date, applicant social presence perceptions in AVIs have received no research attention. The present study follows a recent proposition by Lukacik et al. (2020) by measuring social presence perceptions in AVIs containing different stimuli formats.

In addition to questions about the effect of AVI stimuli formats on social presence, people respond to design features differently. In other words, individual differences amongst applicants may impact their reactions and behaviours towards AVI design features. Individual differences are here referred to as the variations amongst individuals in relation to various aspects. Previous research has failed to consider the impact of applicants' individual differences, specifically in two aspects. First, applicants may vary in their social presence *preferences*, defined here as an individual's desire to feel social presence. Second, research in other domains shows that applicants may differ in their affinity for technology in web-based interviews and AVIs (Basch et al., 2020). Applicants' affinity for technology refers to the attitude individuals demonstrate towards technology and may significantly impact their interview performance and willingness to accept the AVI invitation (Edison & Geissler, 2003; Lukacik et al., 2020). For instance, individuals with a low affinity for technology may react differently to stimulus format in AVIs compared to individuals with a high affinity for technology. Research in this area will provide unique insights to understand individuals' reactions and behaviour towards AVI stimulus format.

The current study will, therefore, address the gap by determining the impact applicants' individual differences, including social presence preferences and affinity for technology, may have on their reactions and behaviours towards AVIs.

1.4 Research Questions

The research questions were as follows:

- What is the effect of stimulus format, such as video and text, in AVI design on applicant perceptions of social presence?
- Does the association between AVI stimulus format (video vs text) and applicants' social presence perceptions depend on applicants' social presence preferences and affinity for technology?

Therefore, the study comprised of a field experiment in which prospective job applicants completed either an audio-visual based AVI or a text-based AVI for a mock job interview, as well as a survey measure set (to assess individual difference characteristics and applicant reactions). The use of an experiment allowed causal inferences on AVI stimulus

format and applicant social presence perceptions to be deduced, and provided a strong basis for evidence based recommendations for organisational practice. This study will go a long way towards providing evidence for the potential causal effects of AVI stimulus format on applicant reactions, as well as the potential moderating role of individual differences.

1.5 Layout of Dissertation

This introductory chapter presented a background to the study, highlighted the research problems and discussed the objectives of the study. The next chapter will present definitions, theoretical origins, an in depth review of the study variables and a discussion of previous research findings. Thereafter, the methods chapter will provide a description of the research design, sample, data collection procedure, ethical considerations and the data analysis process that was suitable for the current study. Following this, the study findings will be presented in the results chapter. Subsequently, the study findings, implications of the study, limitations and recommendations for future research will be discussed in the discussion chapter. Finally, an overall conclusion will be provided.

Chapter 2: Literature Review

2.1 Introduction

The purpose of this chapter is to explore the independent, dependent, and moderating variables, which form part of the study into the effects of AVI stimulus format on applicant reactions and the potential moderating role of individual differences. This chapter presents the definitions, theoretical origin and previous empirical research relating to each variable, namely AVI stimulus format, social presence perceptions and individual differences such as, social presence preferences and affinity for technology. Furthermore, the relationship between AVI stimulus format and social presence perceptions, and the potential moderating role of individual differences is explored. It is important to understand these relationships because applicant reactions may significantly affect applicant behaviours, such as intentions to accept a job offer. This discussion will be used to generate four plausible hypotheses (related to the influence of AVI stimulus format). The review concludes with a conceptual model of the study.

2.2 Selection Interviews

This study investigated the stimuli formats of asynchronous selection interviews. Selection interviews are one of the most adopted tools by organisations for use in personnel selection (Basch et al., 2020). This may be due to the fact that interviews are generally well received by applicants when compared to other selection tools (Huffcutt et al., 2014). These claims are supported by multiple survey findings. For example, in a study conducted in numerous organisations across five continents, Ryan et al. (1999) concluded that interviews were the most common selection tool. More recently, Alonso et al. (2017) reported similar results supporting the prevalence of selection interviews in personnel assessment.

The use of technology in selection interviews is on the rise. For instance, firms offering assessment and selection services are progressively including technological components in assessment design (Tippins, 2015). The type of technology used in assessments includes computers employed to score tests, and video technologies to allow applicants to view test questions and record their responses (Tippins, 2015). Given the apparent popularity of selection interviews and the growing use of technology in assessment and selection processes, alternative modes of administration have been developed in addition to traditional face-to-face interviews.

2.3 Asynchronous Video Interviews (AVIs)

2.3.1 AVI definition

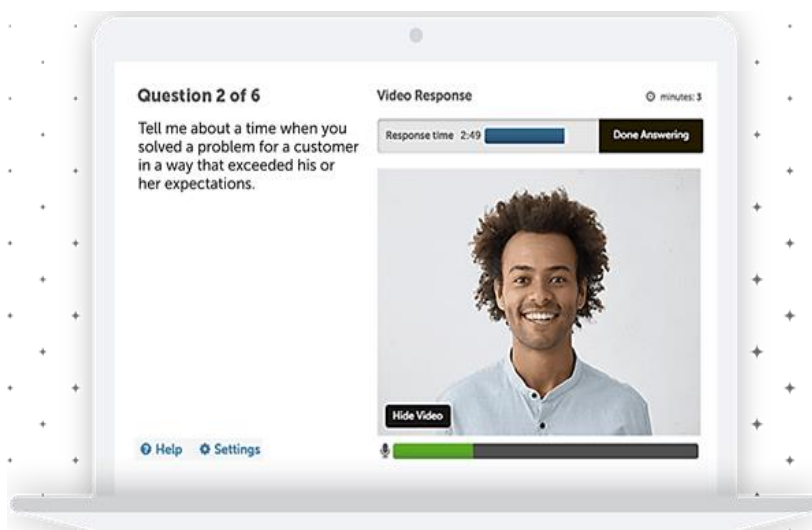
Traditional interviews involve face-to-face interactions between the applicant and interviewer (Huffcutt et al., 2014). AVIs are a recent alternative to traditional interviews and are defined by Lukacik et al. (2020, p.1) as “a one-way asynchronous interaction during which the applicant does not interact in real-time with any representative of the organization.” Langer et al. (2017) add that in AVIs, also referred to as digital interviews, there is no real-time interaction between the applicant and interviewer.

2.3.2 How do AVIs work?

In the AVI process, applicants log onto an online AVI platform where they are presented with predetermined interview questions on a screen. Figure 2.1 demonstrates an example of how questions may be asked on an AVI platform. Subsequently, applicants are invited to record their response to the question using a webcam and microphone (Basch et al., 2020; Brenner et al., 2016). As mentioned earlier, applicant responses are evaluated by human raters or artificial intelligence software at a later stage (Basch et al., 2020; Lukacik et al., 2020).

Figure 2.1

Example of an AVI Platform



Note. HireVue (<https://www.hirevue.com>)

2.3.3 AVI Uptake

Past studies have focussed on applicants' perceptions and reactions to AVIs compared to traditional interviews. Research suggests that applicants support the use of AVIs as a selection tool because they increase flexibility as well as job and interview opportunities. However, it has also been found that AVIs are low in favourability due to their impersonal nature and the potential limitation of technological issues (Brenner et al., 2016; Guchait et al., 2014; Langer et al., 2017). Moreover, research suggests that AVIs are perceived as less fair than traditional interviews, with face-to-face interviews having higher levels of perceptions of social presence (Basch et al., 2020). On the whole, it seems that participants may prefer traditional interviews to digital interviews, as traditional interviews are perceived to be fairer.

Organisational psychology research on AVIs has increasingly focused on using AVIs to successfully predict applicant personality traits. For example, researchers have utilised artificial intelligence software to extract non-verbal behaviours from AVIs in order to assess personality traits including openness, conscientiousness, extraversion, agreeableness and neuroticism (Hickman et al., 2021; Suen et al., 2020). Indeed, artificial intelligence software may be embedded into an AVI to predict an interviewee's personality traits.

A recent review by Lukacik et al. (2020) outlines fruitful areas of research regarding AVIs. The article outlines the critical need to explore how differences in AVI designs may impact applicants' reactions and behaviours, which the current study will contribute towards.

2.3.4 Advantages and Disadvantages of AVIs

AVIs demonstrate considerable advantages to organisations. A notable feature of AVIs is their ability to assess numerous participants simultaneously, to determine who is most suitable for the position (Langer et al., 2019; Lukacik et al., 2020; Suen et al., 2020). Interestingly, in an AVI, applicants can record answers to the interview questions at a time that is most suitable for them (Suen et al., 2020). This feature results in an expansion of the applicant pool to individuals' who may have otherwise been difficult to reach (Basch et al., 2020; Brenner et al., 2016). For example, international time zones may act as a barrier in video conferencing interviews. In AVIs, however, this is not a concern (Brenner et al., 2016). Additionally, there is a reduction in transport costs as applicants are not required to travel. As a result, it appears that the number of applicants afforded the opportunity to be assessed in AVIs is higher than in traditional interviews.

Another critical advantage of web-based asynchronous video interviews is its ability to increase efficiency in the selection process (Langer et al., 2017). For instance, video interview records are easily accessible and can be shared and evaluated at the raters' convenience. In addition, to efficiently assess applicants, research suggests that AVIs offer significant psychometric benefits (Basch et al., 2020). This is largely due to the elimination of interviewer probing in AVIs, with the questions being pre-determined and each design administered correspondingly (Lukacik et al., 2020). Furthermore, given that there is no influence of the interviewer on the interviewee, AVIs are standardised and consistency across applicants is ensured. Evidence has shown that standardisation increases reliability and validity (Huffcutt et al., 2014). Therefore, the general components of AVIs significantly contribute to its reliability and validity.

Despite their many advantages, AVIs, however, are not without limitations. For instance, AVIs significantly differ from other interview modalities as a result of the lack of synchronous communication. As a result, AVIs are generally less accepted compared to traditional face-to-face interviews (Basch et al., 2020; Langer et al., 2017; Proost et al., 2020). Research suggests that communication in AVIs is lower in interactivity and transparency than traditional interviews, and individuals prefer face-to-face interviews as they believe they are offered a better opportunity to demonstrate their full potential (Langer et al., 2017; Proost et al., 2020). In sum, the use of AVIs in assessment and selection processes demonstrates various limitations; however, the advantages and disadvantages of AVIs can be significantly affected by specific AVI design characteristics.

2.3.5 AVI Design Characteristics

AVIs differ in design characteristics. Lukacik et al. (2020, p.2) recognise and define AVI design as, "how the interview is programmed, or the configuration of features that are chosen, to create the user experience". It is important to acknowledge that AVIs may differ due to their unique design characteristics (Langer et al., 2019; Lukacik et al., 2020). Table 2.1 demonstrates notable differences in AVI design characteristics. For instance, certain AVI designs may utilise audio-visual welcome messages and questions, while others may use textual formatting to present their welcome message and questions (Lukacik et al., 2020). Similarly, in terms of response formatting features, certain AVI configurations may allow response preparation time and an option to re-record responses while others may not (Lukacik et al., 2020). Therefore, it is clear that AVIs are unique due to various design characteristics.

Table 2.1*AVI Design Features*

Structure Formatting Features	
Question timers	Questions are presented to applicants for a set duration. For example, this may last for 30 seconds or until the applicant clicks a button to acknowledge that the question is understood.
Media Features	
Video introductions	Videos or audio clips may be included in the AVI design. This could include a video to introduce the applicant to the workplace.
Video recorded questions	Video recorded questions involve human interviewers posing the question.
Media quality	This refers to the image resolution, sound and quality of the media present in the AVI.
Response Formatting Features	
Response preparation time	Recording can happen immediately after the question is posed or time to generate a response may be provided.
Re-recording responses	Applicants may be granted additional attempts to re-record interview question responses.

Note. From “Into the void: A conceptual model and research agenda for the design and use of asynchronous video interviews,” E.-R. Lukacik, J. S. Bourdage and N. Roulin, 2020, *Human Resource Management Review*, 32(1), p.2 (<https://doi.org/10.1016/j.hrmr.2020.100789>)

It is important to keep in mind that specific AVI design decisions may impact applicants’ reactions and behaviours. Response preparation time, for example, is a particular design feature that may influence applicant perceptions of fairness. On the one hand, longer preparation time could increase applicants’ perceptions of their opportunity to perform well. On the other hand, however, shorter or no preparation time could be perceived as unfair (Lukacik et al., 2020). Further, response preparation time could influence applicant anxiety. For example, longer preparation time may reduce anxiety as applicants would have more time to formulate responses (Lukacik et al., 2020). In addition, Lukacik et al. (2020) highlight that applicant perceptions of social presence may be influenced by design decisions. Thus, it is evident that specific design features may significantly affect applicant reactions, behaviours and outcomes.

2.3.6 Lievens and Sackett (2017) Modular Approach

To gain a better understanding of AVI designs, a modular approach is suitable. Lievens and Sackett (2017) developed a 7-predictor method factor framework to specifically gain understanding of personnel selection design. In their modular approach, each predictor method factor represents an aspect of test design. A modular approach is suitable to gain insight regarding the underlying components of AVI designs and their probable effects. For instance, as opposed to viewing selection procedures as holistic entities, a modular approach breaks down a system into smaller parts. As a result, substantial insight is gained into the different components of selection design (Bobko & Roth, 2013). Another noteworthy advantage, as highlighted by Lievens and Sackett (2017), is that a modular approach enables experiments to be conducted in which certain components of the design may be modified. Such experimentation may remarkably assist in improving current selection designs. Table 2.2 demonstrates the factors in the framework including stimulus format, contextualisation, stimulus presentation consistency, response format, response evaluation consistency, information source and instruments (Lievens & Sackett, 2017).

Stimulus Format. stimulus format is defined as, “the modality by which test stimuli are presented to test-takers”, according to Lievens and Sackett (2017, p. 45). Previous studies have distinguished six categories of stimuli including textual, pictorial, auditory, audio-visual, remote online and face-to-face stimuli. Textual stimuli include written items; pictorial stimuli include pictures in a task; auditory stimuli involve voiceovers or telephone interviews; dynamic audio-visual stimuli may include avatar-based characters; while remote online and face to face interactions may include videoconferences or live stimuli presented by interviewers (Lievens & Sackett, 2017).

Previous research has demonstrated the importance of stimulus format in selection outcomes including validity, subgroup differences and applicant perceptions. For example, findings from a study on situational judgement tests suggest that utilising audio-visual stimuli instead of textual stimuli resulted in better applicant perceptions (Kanning et al., 2006). Furthermore, research that relied on social bandwidth theories, found that applicant ratings were lower in video-conference interviews than in face-to-face interviews due to lower social presence (Robles et al., 2013; Van Iddekinge et al., 2006). The current study adopts an experimental design in which selected aspects of stimulus format were modified, while holding the remaining six factors constant.

Table 2.2*Stimulus Format Predictor Method Factor*

Predictor Method Factor		Examples
Stimulus format	Modality by which test stimuli (information, questions, prompts) are presented to test-takers	Textual stimuli
		Pictorial stimuli
		Auditory stimuli
		Dynamic audio-visual stimuli
		Videoconference/remote interactive stimuli
		Face-to-face interactive stimuli

From “The effects of predictor method factors on selection outcomes: A modular approach to personnel selection procedures,” F. Lievens and P. R. Sackett, 2017, *Journal of Applied Psychology*, 102(1), p. 46 (<https://doi.org/10.1037/apl0000160>)

2.4 Applicant Reactions

Research has shown that applicant reactions have made meaningful contributions to recruitment and selection over the years. Given that the role of human resource departments in organisations are progressively being viewed as crucial organisational partners, employers have demonstrated increased interest in applicant reactions to assessment and selection processes (McCarthy et al., 2017).

2.4.1 Applicant Reactions Definition and Gilliland’s (1993) Model

Applicant reactions refer to how job applicants respond to selection tools based on their experience throughout the application process (McCarthy et al., 2017). These reactions include perceptions of fairness, social presence perceptions and levels of motivation (McCarthy et al., 2017).

Gilliland (1993) developed one of the most advanced models of applicant reactions by utilising the principals of organisational justice to explain how applicants react to selection tools. Gilliland’s (1993) model proposes 10 procedural justice rules, and suggests that applicants’ perceptions of the organisations ability to adhere to those rules affect their perceptions of fairness of the assessment process. In turn, applicants’ fairness perceptions may affect crucial outcomes such as job offer acceptance.

2.4.2 Empirical Evidence Regarding Applicant Reactions

In recent years, there has been a growing interest by organisational researchers in studies regarding applicant reactions due to the impact on applicant behaviours including offer acceptance intentions and organisational attractiveness (Konradt et al., 2017). From previous research, applicant reactions have been found to be significantly related to organisational attractiveness, test performance, test motivation and job performance (Konradt et al., 2017; Van Iddekinge et al., 2006). This suggests that applicant reactions have meaningful effects on applicant behaviours and intentions.

2.4.3 Social Presence

Applicant perceptions of social presence have been identified as a critical applicant reaction to consider in AVI research.

2.4.3.1 Definitions of Social Presence and Social Presence Theory

Various scholars have defined the concept of social presence. Initially, social presence was introduced by Short et al. (1976) as a theoretical framework to understand communication through different media channels. Short et al. (1976, p.65) define social presence as, “the degree of salience of the other person in a mediated communication and the consequent salience of their interpersonal interactions.” Short et al. (1976) further suggests that social presence is comprised of two closely related concepts namely, intimacy and immediacy. Intimacy refers to a sense of connectedness that individuals’ feel during an interaction, while immediacy refers to a sense of the psychological distance between interactions. Rice (1993, p. 453) defines social presence as, “the degree to which a medium is perceived as conveying the presence of the communicating participants.”

Social presence can be conceptualised in six interrelated ways namely presence as social richness, presence as realism, presence as transportation, presence as immersion, presence as social actor within medium and presence as medium as social actor (Lombard & Ditton, 1997). Considering this conceptualisation, presence as social richness is crucial to understanding the effects of AVI stimulus format (Lukacik et al., 2020). Presence as social richness refers to the extent to which a communication medium is perceived as sociable, warm or personal during interaction and can be achieved through eye contact, intimacy of conversation topic and facial expressions (Lombard & Ditton, 1997; Lukacik et al., 2020).

The theoretical origin of social presence lies in the social presence theory. Proposed by Short et al. (1976), social presence theory explains the differential effects various communication mediums have on communication between conversation partners. As suggested by Short et al. (1976), a communication medium demonstrating high social presence is perceived as warm and sociable. Conversely, a communication medium demonstrating low social presence is perceived as cold and unfriendly (Short et al., 1976). To date, social presence theory has been explored in various contexts including online learning, social networking and social brand engagement (Chang & Hsu, 2016; Lowenthal, 2010; Osei-Frimpong & McLean, 2018).

2.4.3.2 Importance of Social Presence

Applicants' perceptions of social presence are important in assessment and selection processes. A recent review highlighted that social presence plays a key role in applicants' perceived usefulness, trust and enjoyment of a technological medium (Oh et al., 2018). Furthermore, social presence is required to fully experience the purpose of a virtual environment (Oh et al., 2018). Importantly, previous studies show that social presence is often utilised to assess how successful a communication medium is at imitating the standard of face-to-face communication (Biocca et al., 2001; Hauber et al., 2005). Thus, measuring perceived social presence is crucial in the development of effective AVI designs.

2.4.4 Immersive Qualities and Social Presence

Immersive qualities relate to the ability of a medium to produce realistic experiences that can remove humans from their physical reality (Oh et al., 2018). Previous research has demonstrated that predictors of social presence are almost completely focussed on immersive qualities. Thus, immersive qualities are relevant to the study design. Examples of immersive qualities include visual representation, depth cues and display.

Visual Representation. Visual representation is a key feature that significantly influences actual social presence and perceptions of social presence in online environments (Oh et al., 2018). Generally, studies that explore the effect of visual representation in online environments tend to manipulate the presence of visual representation and the visual realism of the virtual representation (Oh et al., 2018). According to Harris et al. (2009), visual realism pertains to how realistic and human-like a virtual representation appears. Although there are some exceptions, majority of evidence indicates that individuals feel a higher sense of social presence

when a visual representation is available (Kim and Sundar, 2012). For instance, Feng et al. (2016) found that individuals felt greater online social presence when individuals they were interacting with provided a profile picture.

In addition to determining the effect of providing a visual representation in an online environment, researchers have examined the extent to which the human-like qualities of a virtual presentation affect individuals' perceptions of social presence (Oh et al., 2018). In a study by Von der Pütten et al. (2010) involving a computerised agent, it was found that individuals experienced higher perceptions of social presence when the computerised agent displayed feedback behaviour such as nodding its head. It is therefore evident that virtual representation plays a critical role in actual and perceived social presence in online environments.

Depth Cues. An additional way to improve social presence in an online environment is through the inclusion of depth cues (Ahn et al., 2019; Takatalo et al., 2011). Depth can be created through the use of stereoscopic displays, where slightly different displays are presented to each eye (Oh et al., 2018). Ahn et al. (2019) conducted an experimental study and found that utilising stereoscopic displays in a virtual presentation increased social presence perceptions amongst individuals. It is therefore evident that adding depth cues results in higher perceived social presence in a virtual environment.

Display. Researchers have manipulated display features to examine their effect on social presence. Clear examples of display features include image definition and display size (Oh et al., 2018). Both Bracken (2005) and Ahn et al. (2019) found that higher image definition and a larger display size led to increased perceptions of social presence. James et al. (2011), however, found no significant difference between different display features and social presence. Therefore, further research is required to understand the effect between display and social presence perceptions amongst individuals participating in virtual environments. Overall, however, the immersive qualities mentioned have a positive effect on social presence perceptions.

2.4.4.1 Applicant Perceptions of Social Presence in AVIs: Research Findings

Applicant perceptions of social presence in AVIs significantly differ from face-to-face interviews. For instance, 46% of individuals who took part in an AVI characterised it as impersonal and cold (Guchait et al., 2014). This may be as a result of the inability of highly automated interviews to provide effective communication (Basch et al., 2020; Langer et al.,

2019). For example, in an automated interview a virtual character may smile. However, the smile may not appear as natural as a human smile. Similarly, interactivity in automated interviews is limited compared to an interview with a human interviewer (Langer et al., 2019). Therefore, research has consistently shown that social presence perceptions are weaker in AVIs compared to traditional interviews.

However, AVIs offer a unique social dynamic despite the potential negative impacts on social presence. According to Miller et al. (2018), individuals tend to view computers as more objective compared to human interviewers. For example, in face-to-face interviews, the interviewer may judge the appearance of an applicant immediately. However, this may not be the case in an AVI where applicant responses are evaluated through software. Thus, individuals may tend to feel more comfortable with an AVI rather than a traditional interview.

Given the concerns relating to social presence perceptions in AVIs, it is crucial to understand how to counteract this effect. Media richness, for example, can be utilised to improve perceptions of social presence in AVIs (Lukacik et al., 2020). Daft and Lengel (1986) introduced media richness theory (MRT) to highlight that media differs in their ability to produce rich information. Rich media is able to transmit both nonverbal and verbal cues, make use of natural language and convey human emotions; hence, applicants' perceptions of fairness increase when these qualities are embodied (Chapman et al., 2005). In an AVI, the level of media richness can be enhanced by making decisions regarding the stimulus format (Lukacik et al., 2020).

2.4.4.2 Stimulus Format in AVI Design and Applicant Perceptions of Social Presence

Video and textual stimuli may impact applicant perceptions of social presence. Although textual stimuli may be more efficient and cost-effective, audio-visual stimuli may increase the sense of presence in the AVI (Lukacik et al., 2020). This can be directly linked to Social Presence Theory (Short et al., 1976), which suggests that feeling the presence of another individual is favourable for an interaction. For example, a video welcoming and introducing the applicant to the organisation may provide a human touch by providing insights to the organisations culture. These introductory videos could include employees of the organisation who convey messages regarding the organisation's values, relevant information regarding the selection process and organisational fit (Cable & Yu, 2006; Lukacik et al., 2020). Therefore, the inclusion of video AVI stimulus may increase the sense of presence in the AVI.

In addition to the inclusion of video-based company introductions, organisations should make use of richer question formats in AVI design (Lukacik et al., 2020). This can be linked to Oh et al.'s (2018) idea which suggests that display features affect perceptions of social presence. For example, instead of displaying interview questions in textual format, the AVI design could include audio-visual stimuli featuring an employee from the organisation who presents the questions (Lukacik et al., 2020). Including a video with a human interviewer may result in applicants responding in a way that closely resembles traditional face-to-face interviews. As a result, applicant interactivity may increase, therefore promoting higher perceptions of social presence.

Both audio-visual question formatting and textual question formatting relate to the audio-visual stimuli presented in the 7-factor framework by Lievens and Sackett (2017). The present study intends to manipulate stimulus format in AVI designs to determine the effect on applicant perceptions of social presence. Social Presence Theory is utilised in line with the assumption that AVIs may unfavourably affect the social nature of traditional interviews as the applicants will not experience a direct interaction with the interviewer. Considering social presence theory and the literature presented, the following hypotheses are proposed:

Hypothesis 1: Applicant perceptions of social presence will be higher in AVI designs containing video introductions and question formatting instead of textual introductions and question formatting.

2.5 Applicant Individual Differences: Social Presence Preferences and Affinity for Technology as Moderating Variables

Previous research has largely treated applicants alike. However, in addition to the actual selection strategies, applicant individual difference characteristics can significantly account for variances in applicant reactions. It is critical to understand that individual differences may influence applicant perceptions of social presence in AVIs, as social presence can be determined by both the nature of the media and individual characteristics of those using the media (Yoo & Alavi, 2001). For instance, individuals who suffer from social anxiety may not feel comfortable in the presence of others (Oh et al., 2018). Further, organisational researchers suggest that older respondents are less familiar with technology and thus may have lower perceptions compared to younger respondents when participating in technology-based scenarios (Siriaraya & Ang, 2012). Due to these reasons, applicants' individual differences characteristics may be associated with applicants' reactions in relation to study design.

Individual difference characteristics may impact the association between AVI stimulus format and applicant reactions. Generally, the term, individual differences, is reserved for characteristics closer to the stable end of the continuum (Sackett et al., 2017). To date, numerous questions have been raised regarding the origin, measurement, stability over time and usefulness of individual differences (Sackett et al., 2017). According to Ackerman and Humphreys (1990), individual differences can be displayed on a continuum from stable to transitory. In an organisational setting, individual differences are attributes that employees bring to the organisation (Sackett et al., 2017). Motivational traits are a clear example of individual differences in the workplace.

Research exploring the impact of individual differences on social presence perceptions in AVIs may inform researchers on how to ensure adequate levels of social presence in a virtual environment (Oh et al., 2018). The present study particularly focuses on individual differences including applicants' social presence preferences and technology affinity.

2.5.1 Social Presence Preferences

Applicants differ in their personal preferences; hence understanding applicants' preferences towards new selection technologies is crucial to ensure best practices in organisational use. Research relating to individuals' social presence preferences, for example, may assist organisations in designing AVIs

Social presence preferences refer to individuals' personal preferences regarding social interactions (Oh et al., 2018). On one hand, individuals who value social interactions may desire a high sense of social presence in a virtual interaction. On the other hand, individuals who are unsociable may prefer lower levels of social presence (Cortese & Seo, 2012).

2.5.1.1 Social Presence Preferences: Prior Findings

Limited research exists on examining individuals' social presence preferences in technology-based interviews. Generally, researchers hypothesise that including a high sense of social presence in a communication medium will lead to positive social outcomes (Hassanein & Head, 2007). Although a fair amount of research supports this idea, this approach may mislead researchers to disregard the fact that a high sense of social presence may also contribute towards negative communication outcomes (Oh et al., 2018). For example, individuals who experience social anxiety may prefer not to engage in the conversation and may feel at ease when there is a low sense of social presence between communicating partners. Therefore, when

designing communication mediums, it is important to pay attention to social presence preferences amongst job applicants.

2.5.1.2 Social Presence Preferences in AVIs

Individuals' social presence preferences may be linked to the stimulus presentation format in the AVI. For instance, individuals who are socially withdrawn may lack the ability and motivation to significantly attend to social cues that enhance social presence in a communication medium (Cortese & Seo, 2012; Jin, 2010). In addition, these individuals may experience reduced levels of social presence in comparison to individuals who value social interactions, even if the same number of social cues are present in the communication medium (Oh et al., 2018). Linked to this, various studies demonstrate that socially withdrawn individuals prefer to interact through a lean communication medium, which involves text-based interaction (Hammick & Lee, 2014; Hertel et al., 2008). In contrast, more socially orientated individuals prefer media rich communication mediums.

Although these studies were not conducted using technology-based interviews, the study findings can be utilised to predict the impact of social presence preferences in AVI stimulus format. Based on the arguments presented, it is hypothesised that:

Hypothesis 2a: Social presence perceptions differences between audio-visual stimuli and textual stimuli will be more pronounced for applicants with high social presence preferences compared to applicants with low social presence preferences. The increase in social presence preferences due to using video stimuli (vs text) will be greater for applicants that prefer high social presence compared to applicants that prefer lower social presence. In other words, social presence preferences will moderate the effect of AVI stimulus format (video vs text) on perceived social presence.

2.5.2 Affinity for Technology

Individuals do in fact differ in their affinity for technology, and it may not only be relevant in the context of ageing populations worldwide, but also in Africa, where the exposure to technology is varied. Affinity for technology refers to the attitude that individuals demonstrate towards technology (Edison & Geissler, 2003). Individuals' who demonstrate a high affinity for technology tend to accept technological advances and are drawn to technological interaction (Jin & Divitini, 2020). Therefore, applicants' technology affinity is associated with individuals' acceptance of technological advancements.

2.5.2.1 Technology Acceptance Model

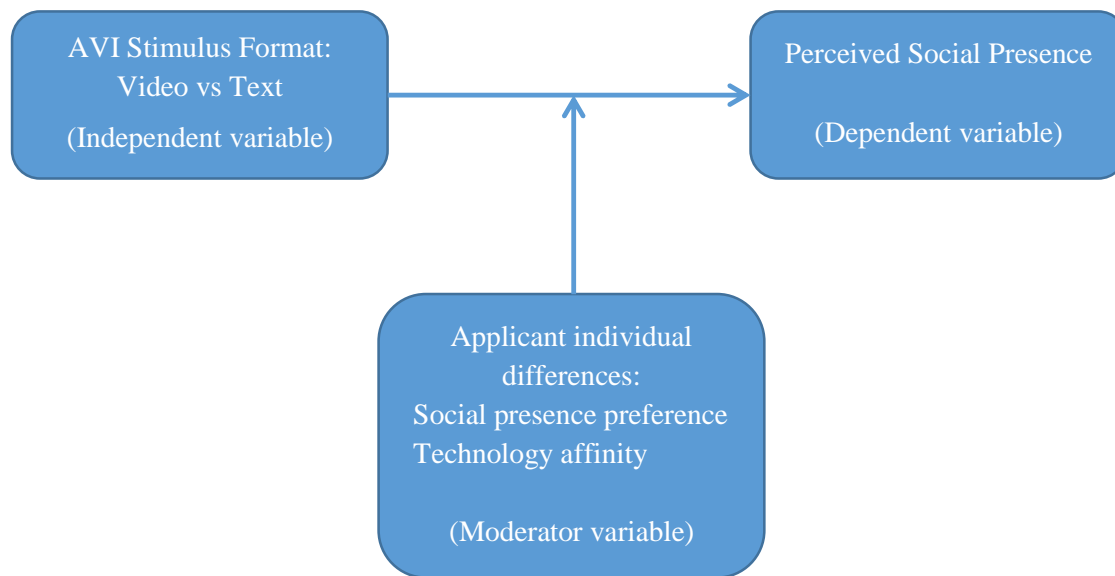
The current study will draw on the technology acceptance model (1989) as a framework to explore the impact of applicants' affinity for technology on their social presence perceptions in an AVI. The technology acceptance model (Davis, 1989) can be utilised to understand individuals' acceptance of technology, and suggests that individuals who perceive the technology to be useful and easy to operate will value its development (Svendsen et al., 2013). A users' attitude towards a technological system is a major determining factor of whether the user will accept or reject the technology (Davis, 1989). Accordingly, applicants' attitudes towards AVIs may influence their willingness to accept the interview invitation.

2.5.2.2 Role of Affinity for Technology in AVIs

Given that AVIs are a relatively new advancement in interview technologies, affinity for technology amongst applicants may play a crucial role in its success. Previous research demonstrates that affinity for technology is positively related to the actual use of recent technological advancements (Mertens et al., 2017; Tan & Teo, 2000). Accordingly, organisational researchers claim that individuals who display a high affinity for technology tend to have increased positive perceptions of technology-mediated selection interviews when compared to those who display a low affinity for technology (Basch et al., 2020). As suggested by the technology acceptance model, individuals who perceive the technology to be useful will value its features, suggesting that applicants with a high affinity for technology may have a more positive experience when partaking in the AVI. Therefore, it is hypothesised that:

Hypothesis 2b: Applicants' affinity for technology will moderate the effect of AVI stimulus format (video vs. text instructions) on applicant perceptions of social presence. The affect will be stronger for those demonstrating a high affinity for technology.

To sum up, the independent variable in the present study is AVI stimulus format and the dependent variable is applicants' perception of social presence. It is hypothesised that applicant perceptions of social presence will increase in AVI designs containing audio-visual stimuli instead of textual stimuli. Furthermore, it proposed that applicants' individual differences will affect their reactions and behaviours towards the AVI stimulus format. Figure 2.2 presents a conceptual model of the study. To test the hypotheses, the researcher will follow an experimental study design.

Figure 2.2*Conceptual Model of the Current Study*

2.6 Conclusion

In this chapter, the literature on AVIs, applicant reactions and individual difference characteristics was reviewed. The definitions and theoretical origin of the study variables were discussed in detail and previous research findings presented. Overall, previous research suggested that specific design features, including AVI stimulus format could affect applicants' reactions. In general, AVI stimulus format was suggested to affect social presence perceptions. Finally, the potential moderating roles of individual differences, relating to social presence preferences and affinity for technology was discussed. Three research hypotheses were developed and established. These will be investigated by using the methodology described in Chapter 3.

Chapter 3: Methods

3.1 Research Design

The researcher utilised a quantitative approach with a between-subjects post-test only experimental design (see Table 3.1). Primarily, experimental designs are used to establish a causal effect between independent and dependent variables (Rosenthal & Rosnow, 2008). Therefore, an experimental design was suitable to address the research questions as the researcher was able to deduce casual inferences on whether AVI stimulus format had any effect on applicants' perceptions of social presence (Kirk, 2013). In the experimental study, participants were randomly assigned into either the audio-visual AVI stimuli condition or the textual AVI stimuli condition, which acted as the control group. Random assignment was employed to limit bias and to ensure that the audio-visual and textual groups were comparable (Kirk, 2013). Due to time constraints and the nature of the study, a cross-sectional design was used.

3.1.1 Study Variables

The independent variable in the present study was AVI stimulus format and consisted of two levels including audio-visual stimuli and textual stimulus format. Changes in the study's independent variable were used to measure changes in the study's dependent variable: social presence perceptions.

Table 3.1

Post-test Only Research Study Design

Treatment Group	Intervention	Observation
R ₁	X ₁	O
R ₂		O

Note. R₁ = treatment group 1; R₂ = control group; X₁ = audio-visual stimuli in the AVI; O = post-test.

3.2 Participants and Sampling

The study population was selected with the aim of including potential job applicants. As such, individuals who were of working age were eligible for the study. Individuals under the age of 18 were excluded from the study as they did not meet the minimum age requirements

for full-time employment both in South Africa and internationally (International Labour Organization, 1973; Basic Conditions of Employment Act No. 75 of 1997). Before conducting the research, a power analysis was performed to identify a sufficient sample size. Based on previous research, an effect size of $d=0.5$ was assumed (Basch et al., 2021; Langer et al., 2017); with the power analysis revealing that a sample of $N=102$ would be suitable to reach a power of 0.80.

Two distinct samples were utilised to collect data in both an African and Western context. This was to ensure that the study is easily replicable. Non-probability convenience sampling was used to source participants in sample 1 and sample 2. Participants in sample 1 were asked to forward the link to others in their network, resulting in snowball sampling.

Sample 1 (SA). Sample 1 consisted largely of students at a South African university, with a mean age of 24 years old. Majority of the sample identified as female. Typically, the average respondent used a laptop to complete the study and as seen in Table 3.2, the data revealed that only 3.4% of respondents had previously taken part in an AVI.

Sample 2 (USA). Sample 2 consisted of American participants, with a mean age of 34 years old. The sample consisted largely of employed participants from a diverse range of occupations. For example, analysts, auditors, consultants, graphic designers and sales assistants. Table indicates that 25.9% of participants had previously taken part in an AVI and majority of the participants utilised a laptop to complete the study.

Table 3.2*Descriptive Characteristics of the SA (N=58) and USA Sample (N=162)*

Variable	Category	Sample 1		Sample 2	
		f	%	f	%
Gender	Male	23	39.7	62	38.3
	Female	34	58.6	99	61.1
	Other	1	1.7	1	.60
Age	18-20	10	17.24	16	9.88
	21-25	39	67.24	31	19.13
	26-35	4	6.90	50	30.86
	36-45	4	6.90	27	16.67
	46-55	1	1.72	22	13.58
	55+	0	0	16	9.88
Employment status	Employed	13	22.41	116	71.6
	Unemployed	3	5.17	26	16.0
	Student	31	53.4	16	9.9
	Student and working part-time	10	17.24	3	1.9
	Missing values	1	1.7	1	.60
Personality in the workplace	Introvert	23	39.7	91	56.3
	Extrovert	33	56.9	71	43.8
	Missing values	2	3.4	0	0
Device utilised to complete the study.	Laptop	47	81.0	115	71.0
	Desktop	4	7.0	29	17.9
	Smartphone	6	10.3	14	8.6
	Tablet	0	0	3	1.9
	Missing values	1	1.7	1	.6
Previous experience with video interviews	Yes (asynchronous)	2	3.4	42	25.9
	Yes (synchronous)	22	37.9	26	16
	Yes (unsure)	2	3.4	20	12.3
	No	30	51.7	73	45.1
	Missing values	2	3.4	1	.6

Note. f=frequency; %= percentage.

3.3 Materials

3.3.1 Asynchronous Video Interview Platform

An AVI platform called myInterview was utilised for this study. The researcher recorded the AVI stimulus materials and imbedded the materials into the AVI platform by creating a hypothetical job. The digital platform gave the participants 60 seconds to prepare (Langer et al., 2017), as well as unlimited attempts to re-record their responses. The myInterview platform was chosen as it is comparable in features to widely used AVI platforms such as HireVue, and was expected to have high fidelity and high external validity. In addition, myInterview had the added benefit of being low-cost.

3.3.2 Video Stimuli (Company Introduction and Interview Questions)

The audio-visual stimuli included a white female interviewer, who introduced participants to the hypothetical organisation. The media was recorded using a camera, which is capable of recording 1080p videos, and a microphone. In the audio-visual company introduction, the interviewer highlighted the mission and vision of the organisation and pointed out what the company has to offer prospective members (Appendix A). In addition to the company introduction, the researcher pre-recorded interview questions. In line with Brenner et al. (2016), the researcher utilised five questions extracted from typical selection interviews. The interview questions consisted of both situational and behavioural questions that measured various dimensions (Appendix B). Both the company introduction and the interview question were recorded in English. The recording took place in a board room at The University of Cape Town, which displays a natural interview setting.

3.3.3 Textual Stimuli

The researcher transcribed both the audio-visual stimuli, introducing participants to the hypothetical organisation and the pre-recorded interview questions. The textual stimuli were presented to participants in English.

3.4 Data Collection Procedure and Ethical Considerations

Before the commencement of the research, the researcher obtained ethical approval from the Ethics in Research Committee at the University of Cape Town (Appendix C). Once ethical approval was granted, the researcher pre-registered the study on AsPredicted

(<https://aspredicted.org/>) to avoid questionable research practices (such as hypothesising after the results are known; HARKing) and to promote open science (Nosek et al., 2018). Furthermore, before data collection, the researcher conducted a pilot study and an item sensitivity review, to test the study materials and data collection instruments. Based on feedback from five participants in the pilot study, answer options for a demographic question were tweaked.

Data was collected over a six-week period between September and October 2021.

SA Sample. To collect responses for the SA sample, the link to the URL that directed participants to Qualtrics (<https://www.qualtrics.com/>) was shared on social media networks including LinkedIn and Facebook. Thereafter, the researcher obtained approval to sample UCT students and UCT staff from the Department of Student Affairs and UCT HR respectively. Both UCT HR and the Department of Student Affairs of UCT sent out an email advertising the study to staff and students. Participants in the SA sample were presented with the opportunity to enter one of ten anonymised raffles. The prize for each raffle was a reward of 25 USD. To enter the anonymised raffles, participants had to provide an email address so that they could be contacted if they won. As a further value add to participants, and to ensure sustainable research, participants could opt to receive feedback on their interview performance. To this end, their responses were evaluated by trained human raters.

USA Sample. Prolific, an online participant recruitment platform, was utilised to recruit participants for the USA sample. On Prolific, participants were given a description of the study, and were paid upon completion. According to Prolific standards, participants were required to be paid a minimum of £7.50 per hour. The current study took approximately 20-30 minutes to complete, thus participants were paid approximately £3.50. Although there is some scepticism regarding Prolific, the platform allows pre-screening of participants which ensures transparency (Palan & Schitter, 2018). For instance, in the current study, participants' digital interviews were reviewed and attention check questions were scanned before accepting the response. If participants failed the attention check or did not complete the digital interview sufficiently, their response was rejected.

In both samples, once participants clicked on the study link, they were informed that their anonymity would be protected and that they had the right to withdraw from the study at any stage, as participation in the study was voluntary. Participants had to sign a consent form before they could continue with the study. (Appendix D). Once consent was provided, participants were told to imagine that they had applied for an attractive entry-level position following their academic studies, and that they were invited to take part in an AVI.

Additionally, participants were presented with a brief introduction to a hypothetical organisation. Following this, participants were directed to the AVI platform in which they were randomly assigned to a treatment condition where they were required to participate in the AVI. Random assignment ensured that all participants had an equal chance of being assigned to either group (Allen, 2017).

Treatment Conditions. The study utilised two conditions namely, an audio-visual stimuli condition and a textual stimuli condition which acted as the control group.

Upon completion of the AVI, participants were redirected to Qualtrics where they were required to complete a short questionnaire including scales about their social presence perceptions, their social presence preferences, and their affinity for technology. Demographic questions were also included.

Debriefing. Upon completion of the questionnaire, participants were debriefed as to the true nature of the experiment. Participants were made aware of the purpose of the study, the two treatment conditions and how the researcher would use their results.

3.5 Measures

The following variables are applicable to the present study: Social presence perceptions, social presence preferences and affinity for technology (Appendix F).¹

3.5.1 Social Presence Perceptions

Social presence perceptions were measured using the 4-item measure developed by Short et al. (1976). Participants were asked how they would describe the interview communication media on a 7-point semantic differential scale comprising of the following pairs: insensitive–sensitive; cold–warm; active–passive; impersonal–personal. The scale provides acceptable Cronbach’s alpha coefficients of .81 and .87 (Basch et al., 2020; Tang et al., 2013). The scale was utilised due to its short nature and recent use in research relating to interview technologies (Basch et al., 2020).

¹ Data collection for the current study was conducted in conjunction with data collection for another Master’s study. Both researchers worked together to develop the study materials and collect study responses.

3.5.2 Social Presence Preferences

Given a lack of existing measures of social presence preferences, a self-developed preferences measure was created. This measure was derived from the social presence perceptions scale and was adapted for social presence preferences. Participants were asked how they would prefer the communication media in automated video interviews to be presented on a 7-point semantic differential scale. This comprised of the following pairs: impersonal-personal; insensitive-sensitive; cold-warm; passive-active. Initially, 6 pairs were included in the scale. However, upon analysing the study data and after coming to the realisation that all 6 pairs did not accurately represent social presence preferences, only 4 pairs were retained.

3.5.3 Affinity for Technology

Affinity for technology was measured using Edison and Geissler's (2003) 10-item scale. Items included: "Technology is my friend", "I am comfortable learning new technologies" and "I feel as up to date on technology as my peers". Participants were required to rate the extent to which they agreed with each item on a 7-point Likert scale (1 = *strongly agree*, 7 = *strongly disagree*). Previous studies reported Cronbach's alpha values of .88 and .90 (Edison & Geissler, 2003; Jin & Divitini, 2020).

3.5.4 Biographical Information

Information relating to participants was collected using a biographical questionnaire. Items measured personal demographics and employment status including age, gender, ethnicity, nationality, occupation, hours worked, and device utilised to complete the experiment. All measures included a 'prefer not to answer' option.

3.5.5 Manipulation Check

A manipulation check is included in experimental studies to determine whether participants experience the study's manipulation as intended (Highhouse, 2009). To check if participants in the experimental condition perceived the video based AVI condition as intended, the following item was included: "The interview introduction and questions were presented in video format". Participants were required to indicate whether they agreed or disagreed with the statement. At a later stage, however, the researcher realised that the manipulation check was

only issued to participants in the experimental group therefore, further analyses relating to the manipulation check could not be reported.

3.6 Experimental Control Measures

Measures were employed to enhance the internal and external validity of the study. Internal validity involves ensuring that the independent variable is responsible for the variation present in the dependent variable, whereas external validity involves ensuring that the findings of the study can be generalised across populations and settings (Kirk, 2013). To promote external validity, suitable participants were not limited to a specific gender, geographical location or a specific industry. All potential job seekers were encouraged to participate in the study, including international citizens. In relation to internal validity, a pre-test was not included in the design as it could affect the internal validity of the study by providing collection of information that may affect participants' perceptions of social presence in the AVI. Furthermore, a pilot study was conducted to determine whether the materials and instructions were adequate for use (Golubovich et al., 2014).

3.7 Data Analysis

The raw data were exported from Qualtrics with the IBM Software Package for Social Sciences (SPSS; Version 22) utilised to clean and analyse the data. Once the data were cleaned, descriptive statistics were used to describe the sample demographics, central tendency, dispersion, and check assumptions (Osborne, 2013). Thereafter, the researcher assessed internal consistency reliability of scores using Cronbach's alpha (Cronbach, 1951). Finally, hypotheses relevant to comparisons of means were tested using a combination of an Independent Samples *t*-test and robust confidence intervals. The use of non-parametric tests such as the Mann-Whitney U Test was avoided because they may be underpowered (Field, 2013). Hayes PROCESS Macro was utilised to conduct moderator analysis (Hayes, 2013).

All data were collected and stored via Qualtrics. Appendix E contains a data management plan which ensures reproducibility of the research (Sullivan et al., 2019).

Chapter 4: Results

This chapter presents the SA and USA sample results of the study. The results section for each sample is divided into six subsections. The first subsection focuses on the data cleaning methods used prior to any analyses. Next, measurement properties of the study measures are discussed. It is followed by a presentation of the assumptions the data was tested for. Next, the descriptive statistics of each variable are presented. Lastly, results from hypotheses testing are reported.

4.1 Sample 1: South Africa ($N = 58$)

4.1.1 Data Cleaning

To ensure the usability of the data set, it was first cleaned to identify any invalid cases. Upon data cleaning, the cases removed from the dataset comprised of 214 incomplete cases, 7 cases with a response time of less than 15 minutes and 1 case of a participant from Norway. A response time of less than 15 minutes indicated that the participant did not complete and submit the video interview on the digital platform. Once all invalid cases had been deleted, the study was left with 58 valid responses.

4.1.2 Measurement Properties

Reliability of Scores. Sound measurement of study variables is important (Osborne, 2013). To assess the measurement properties of the variables in sample 1, item analysis was carried out to gauge the internal consistency of scores (Field, 2013). An item analysis was conducted on the items that constituted each scale by computing Cronbach's alpha using SPSS. From the analysis output, Cronbach's alpha, Cronbach's alpha if item deleted, the item-total statistics and inter-item correlations were evaluated. According to Nunnally (1978), a Cronbach's alpha value of .70 is deemed acceptable.

The overall reliability of all three measures was fairly good, but reliability was poorer in the video condition. As seen in Table 4.1, in the text condition, the social presence perception scale and the social presence preferences scale had high reliability coefficients. Furthermore, the affinity for technology scale demonstrated excellent reliabilities in both conditions. However, in the video condition, the social presence perceptions scale and the social presence preferences scale reported relatively low reliabilities ($\alpha = .57$). The low Cronbach's alpha values could be attributed to the fact that the sample size was small and the scales in question were

short. Furthermore, the sample homogeneity may have attenuated the Cronbach's alpha values for the reliability estimates in the experimental group (Lavrakas, 2008).

Table 4.1

Reliability Analyses of Measures in the SA Sample

Scale	<i>N</i> items	Condition	Cronbach's Alpha (α)	Item-total Correlations	Mean Item-total Correlation
Social Presence Perceptions	4	Video (experimental)	.57	.07 < <i>r</i> < .44	.26
		Text (control)	.80	.29 < <i>r</i> < .72	.50
		Across both conditions	.76		
Affinity for Technology	10	Video (experimental)	.91	.06 < <i>r</i> < .82	.51
		Text (control)	.92	.20 < <i>r</i> < .84	.56
		Across both conditions	.91		
Social Presence Preferences	4	Video (experimental)	.57	.90 < <i>r</i> <	.31
		Text (control)	.76	.12 < <i>r</i> < .80	.47
		Across both conditions	.71		

Measurement Validity. Ideally, the factor structures underlying the scores relevant to the study measures (social presence perceptions, social presence preferences and affinity for technology) would be analysed and reported. However, measurement validity analyses were not conducted due to the small sample size (Field, 2013). Previous studies (e.g., Basch et al., 2020; Jin & Divitini, 2020; Tang et al., 2013) however, support the measurement properties of the social presence perceptions scale and the affinity for technology scale. Although validity analyses could not be conducted on each separate sample, data from the SA and USA sample were combined to assess the unidimensionality of the Social Presence Preferences scale that the researcher developed. The results revealed that the social presence preferences scale demonstrates unidimensionality (Appendix G).

4.1.3 Assumption Testing

Preliminary analyses were conducted to test the data for parametric tests assumptions. Outliers, linearity and homoscedasticity, independence and normality were the assumptions that were tested (Field, 2013).

Outliers. Based on box-plots, three cases of outliers were identified. To handle the presence of outliers, best practice guidelines by Aguinis et al. (2013) were followed, with the potential presence of extreme outliers tested by examining the z-scores of cases. The results suggested that no cases represented extreme outliers (cases with a z-score > 3.29 , $p < .001$). Therefore, no outliers were removed.

Linearity and Homoscedasticity. Linearity suggests that scores on the outcome variable are linearly related to predictor variables (Field, 2013). This assumption is particularly important as the model will be invalid if linearity is not met (Field, 2013). Homoscedasticity describes a data set that demonstrates equal variances amongst groups (Field, 2013). Both linearity and homoscedasticity were tested by examining scatterplots. Since the data points on the scatterplots were randomly distributed, the data satisfied the assumptions of linearity and homoscedasticity. (Field, 2013).

Levene's test. A Levene's test was conducted to support the findings of the assumption of homoscedasticity. Results from Levene's test indicate that there was an equal variance between the video stimuli group and the textual stimuli group ($F(1,56) = 1.801$, $p = .185$). Therefore, an independent samples *t*-test was used to test the hypotheses.

Independence. The assumption of independence was tested using the Durbin-Watson statistic which reveals whether residuals are correlated or not. A Durbin-Watson statistic of close to 2 indicates that residuals are uncorrelated. A regression analysis for the current study revealed a Durbin Watson statistic of 1.564, indicating that the data met the assumption of independence (Field, 2013).

Normality. The assumption of normality of observations in the sample was tested by inspecting histograms. Majority of the histograms represented a normal distribution, aside from two histograms. Therefore, Shapiro-Wilk's test was used to confirm the findings of non-normality. As seen in Table 4.2, the Shapiro-Wilk statistic confirmed that the scores for social presence perceptions and social presence preferences in the text condition did not meet the assumption of normality ($p < .05$) (Osborne, 2013). To account for the violations to normality,

bootstrapping was applied to the *t*-test. 1000 bootstrapped samples were computed, and results from the bootstrapping are reported in the hypothesis testing section.

Table 4.2

Shapiro-Wilk Test of Normality of Data: Video and Text Conditions

Measure	Video Condition			Text Condition		
	W	df	p	W	df	p
Social Presence Perceptions	.980	30	.813	.914	28	.025
Affinity for Technology	.955	30	.226	.970	28	.589
Social Presence Preferences	.946	30	.134	.848	28	.001

4.1.4 Descriptive Statistics

Table 4.3 reports the descriptive statistics of the study variables within each condition. The results are presented separately based on condition. On average, participants in the video and text conditions demonstrated fairly high scores in social presence perceptions. Given that social presence was measured on a 7-point semantic scale, both the video ($M = 5.26$) and text groups ($M=4.50$) reported scores closer to 7.

Table 4.3

Descriptive Statistics for Study Variables within Each Condition (N = 58)

Condition	Variable	Mdn	M	SD	95% CI
Video (experimental) (n=30)	Social Presence Perceptions	5.25	5.26	.88	[4.93, 5.58]
	Affinity for Technology	2.45	2.54	2.54	[2.14, 2.94]
	Social Presence Preferences	5.75	5.79	5.79	[5.46, 6.13]
Text (control) (n=28)	Social Presence Perceptions	4.50	4.45	4.46	[3.92, 4.99]
	Affinity for Technology	2.55	2.64	2.64	[2.21, 3.06]
	Social Presence Preferences	5.50	5.19	5.19	[4.69, 5.69]

Note. N=number of participants; *Mdn* = median; *M*=mean; *SD* = standard deviation; *CI*= confidence interval.

With regard to social presence perceptions, the data indicates that participants in both conditions would prefer a condition with high social presence (video condition: $M = 5.75$; text condition: $M=5.50$). Furthermore, the mean scores of the affinity for technology scale indicate that on average, participants had a strong affinity for technology.

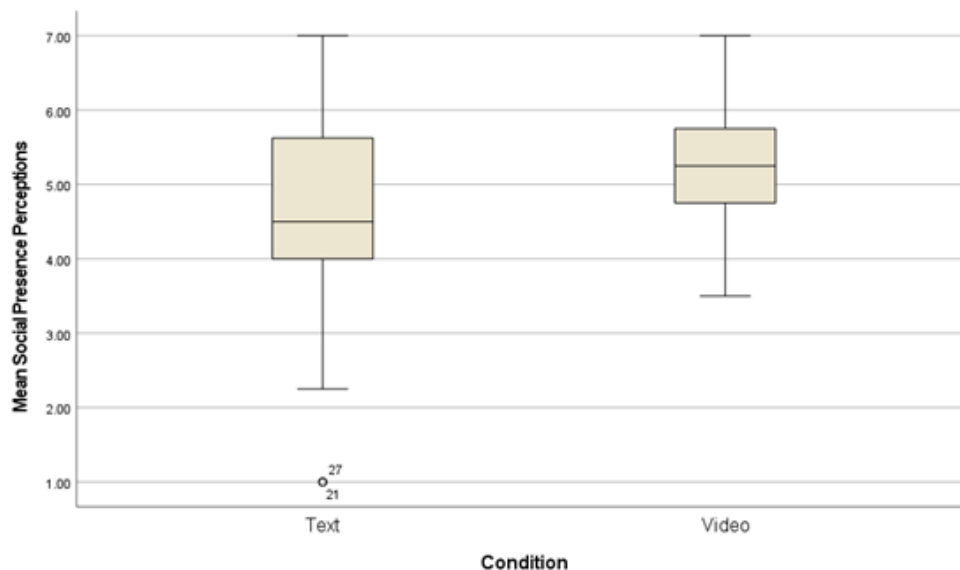
4.1.5 Hypotheses Testing

Means Comparisons (Treatment Effects). Hypothesis 1 stated that applicants' perceptions of social presence will be higher in an AVI design containing video introductions instead of textual introductions and video formatted questions rather than text-based questions. An independent samples *t*-test was utilised to test hypothesis 1. The results revealed that on average, participants who experienced video introductions to the organisation had higher perceptions of social presence ($M= 5.26, SE= .87$) than those who experienced a text-based introduction ($M= 4.46, SE= 1.38$). The difference, $-.81$, 95% CI $[-1.41, -.20]$, was statistically significant, $t(56) = -2.66, p = .01$. The difference represented a medium sized effect $d = 0.70$ (Cohen, 1992). Hypothesis 1 is, therefore, accepted.

Due to concerns about normality, bootstrapped confidence intervals were used to confirm the results of the hypothesis test, as suggested by Field (2013). The results revealed a mean difference of $-.81$ in social presence perceptions between participants who experienced a text-based AVI and those who experienced a video based AVI. The bootstrapped confidence intervals ranged from -1.42 to -0.22 , thus confirming the results of the *t*-test.

Figure 4.1

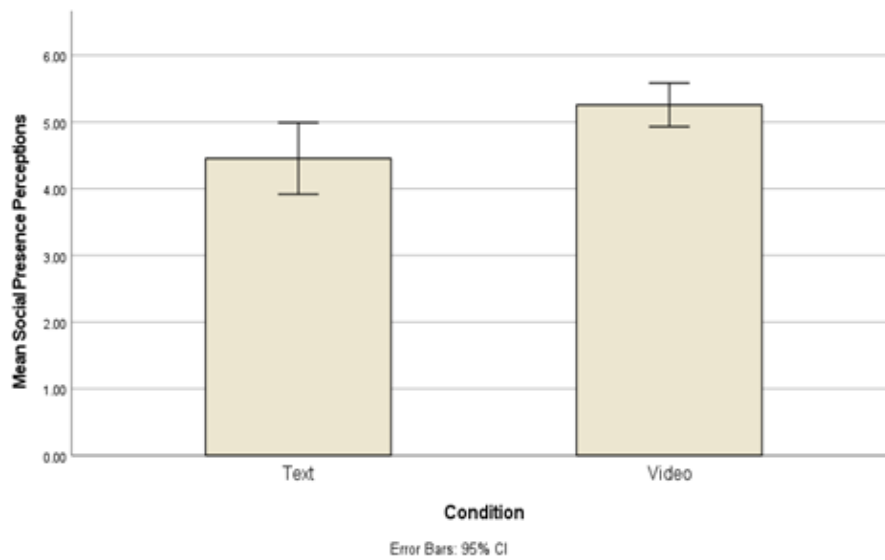
Mean Differences in Social Presence Perceptions between the Video and Text Conditions



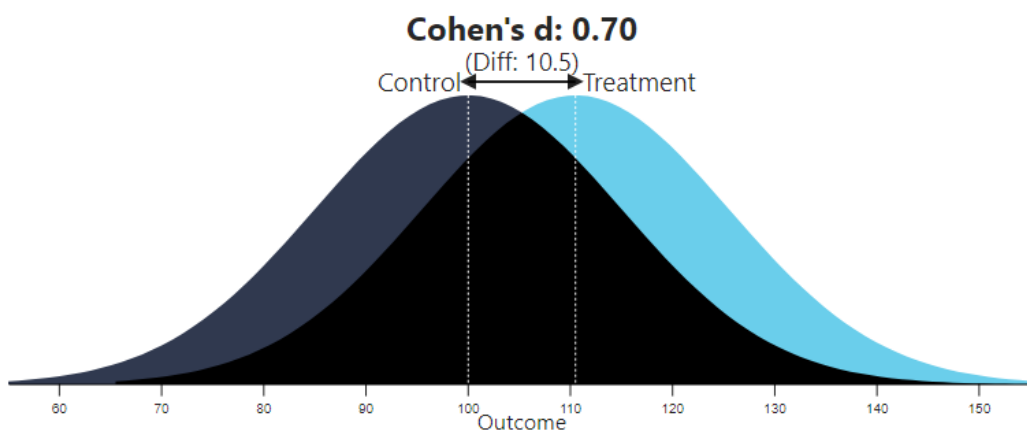
Note. Box plot demonstrating the mean differences in social presence perceptions between the video (experimental) and text (control) conditions, with case number 21 and 27 being outliers in the text condition. However, the identified outliers were not extreme.

Figure 4.2

Mean Social Presence Perceptions Scores across Video and Text Conditions

**Figure 4.3**

Visualisation of Effect Size (d) Based on Applicants Social Presence Perceptions in the Video and Text Conditions



Note. From “Interpreting Cohen's d effect size: An interactive visualization” by K. Magnusson, 2021. <https://rpsychologist.com/cohend/>

4.1.6 Further Analyses

This section discusses additional findings which may assist in better understanding the study results.

Design Preferences. To explore the design preferences of participants with regards to textual instructions and video-based instructions, descriptive statistics were run on the design preferences variable to identify the mean and standard deviation scores. Exploring applicants design preferences informed organisational practitioners about applicants' favourability in an AVI. A score of 1 indicated that participants preferred a text-based AVI while a score of 7 indicated that participants preferred a video-based AVI. The results revealed that participants' preferences were dispersed, however, on average participants' preferences leaned towards a preference for video-based instructions ($M = 4.19, SE = 2.50$).

Statistical Power. A post hoc power analysis was conducted using the G*Power3 software package to estimate the statistical power of the t -test model (Faul et al., 2007). A sample size of 58 and effect size of $d = .70$ were utilised to conduct the power analysis. The alpha level used for the analysis was, $p = 0.05$. Generally, high statistical power is indicated by a statistic of .80 or greater (Osborne, 2013). The analysis revealed that the statistical power of the overall model was .74, indicating a low power (Cohen, 1992). The statistical power obtained suggests that the researcher will correctly reject a false null hypothesis on average 74% of the time (Osborne, 2013).

4.2 Sample 2: United States of America ($N = 162$)

4.2.1 Data Cleaning

Prior to conducting any analyses, the data was cleaned to identify any invalid cases. After data cleaning, the cases removed from the dataset comprised of 142 incomplete cases, 8 cases where participants did not provide consent, 55 responses that were either rejected or returned on Prolific and 7 cases that contained insufficient effort responding. Responses were classified as insufficient effort if participants chose to endorse identical response options continuously (Huang et al., 2012). Once all invalid cases were deleted, the study was left with 162 valid responses.

4.2.2 Measurement Properties

Reliability of Scores. To assess the measurement properties of the variables in sample 2, item analysis was carried out to measure the internal consistency of scores. By computing Cronbach's alpha using SPSS, an item analysis was conducted on the items that constituted each scale. Based on the analysis output, Cronbach's alpha, Cronbach's alpha if item deleted,

the item-total statistics and inter-item correlations were evaluated. As reported by Nunnally (1978), a Cronbach's alpha value of .70 is deemed acceptable.

The overall reliability of all three measures was fairly good. As seen in Table 4.4, most scales demonstrated acceptable reliabilities, with the affinity for technology scale demonstrating excellent reliabilities in both conditions and the social presence perceptions scale demonstrating excellent internal consistency reliability in the text condition.

Table 4.4

Reliability of Measures in the USA Sample

Scale	<i>N</i> items	Condition	Cronbach's Alpha (α)	Item-total Correlations	Mean Item-total Correlation
Social Presence Perceptions	4	Video (experimental)	.68	.20 < r < .64	.34
		Text (control)	.81	.46 < r < .57	.52
Affinity for Technology	10	Video (experimental)	.94	.24 < r < .82	.61
		Text (control)	.92	.26 < r < .77	.56
Social Presence Preferences	4	Video (experimental)	.78	.90 < r <	.31
		Text (control)	.77	.12 < r < .80	.47

Measurement Validity. Ideally, the factor structures underlying the scores relevant to the study measures in sample 2 (social presence perceptions, social presence preferences and affinity for technology) would be analysed. However, measurement validity analyses could not be conducted due to the small sample size (Field, 2013).

4.2.3 Assumption Testing

Similar to sample 1, the following assumptions were tested: outliers, linearity and homoscedasticity, independence, and normality.

Outliers. Based on box-plots which indicate how values in the data set are spread out, 4 cases of outliers were identified. Best practice guidelines by Aguinis et al. (2013) were followed to address the presence of outliers. Based on the z-scores of the cases, it was evident that extreme outliers were not present in the data set (cases with a z-score > 3.29, $p < .001$). Therefore, no outliers were removed.

Linearity and Homoscedasticity. Linearity and homoscedasticity were tested by examining scatterplots which displayed values for the sample 2 data set. Since the data points

on the scatterplots were randomly distributed, the data were considered to have met the assumption of linearity and homoscedasticity (Field, 2013).

Levene's Test. A Levene's test was conducted to support the findings of the assumption of homoscedasticity. Equal variance between the video stimuli group and the textual stimuli group was found ($F(1,160) = 1.949, p = .165$). Therefore, it is appropriate to use an independent samples t -test to test the hypotheses.

Independence. The assumption of independence was tested using the Durbin-Watson statistic which reveals whether residuals are correlated or not. A regression analysis for the current study revealed a Durbin-Watson statistic of 2.05, indicating that the data met the assumption of independence (Field, 2013).

Normality. The assumption of normality of observations in the sample was tested by inspecting histograms. Majority of the histograms represented a normal distribution; however, there was evidence of non-normality amongst certain histograms. Shapiro-Wilk's test was therefore used to confirm the findings of non-normality. As seen in Table 4.5, the Shapiro-Wilk statistic confirmed that segments of the data did not meet the assumption of normality ($p < .05$) (Osborne, 2013). The results suggest that the data were not normal for the affinity for technology and social presence preferences measures in both conditions. However, according to Field (2013), based on the central limit theorem, the assumption of normality is not a concern in larger samples due to the central limit theorem.

Table 4.5

Shapiro-Wilk Test of Normality of Data: Video and Text Conditions

Measures	Video Condition			Text Condition		
	W	df	p	W	df	p
Social Presence Perceptions	.99	81	.51	.97	81	.07
Affinity for Technology	.91	81	.01	.97	81	.03
Social Presence Preferences	.91	81	.00	.96	81	.01

4.2.4 Descriptive Statistics of Variables in Sample 2

The descriptive statistics of the study variables within each condition in sample 2 are reported in Table 4.6. The results are presented separately based on condition.

On average, participants in the video and text conditions demonstrated above average scores of social presence perceptions. Given that social presence was measured on a 7-point

semantic differential scale, the video ($M=4.30$) and text group ($M=4.30$) reported scores closer to 7, suggesting that their perceptions of social presence in the experiment were above average. Similar to sample 1, the data indicated that participants prefer a condition with high social presence ($M = 5.28$ in the video condition; $M = 5.19$ in the text condition). Furthermore, the mean scores of the affinity for technology scale indicate that on average, participants had a strong affinity for technology ($M= 2.41$; $M = 2.42^2$).

Table 4.6

Descriptive Statistics for Study Variables within Each Condition in Sample 2

Condition	Variable	<i>Mdn</i>	<i>M</i>	<i>SD</i>	95% CI
Video(experimental)(n=81)	Social Presence Perceptions	4.25	4.30	1.14	[4.00, 4.50]
	Affinity for Technology	2.20	2.42	1.04	[2.18, 2.65]
	Social Presence Preferences	5.50	5.28	1.14	[5.02, 5.53]
Text (control) (n=81)	Social Presence Perceptions	4.00	4.30	1.29	[4.01, 4.58]
	Affinity for Technology	2.30	2.41	.91	[2.21, 2.61]
	Social Presence Preferences	5.00	5.19	1.07	[4.95, 5.43]

Note. N =number of participants; *Mdn* = median; *M*=mean; *SD* = standard deviation; CI= confidence interval.

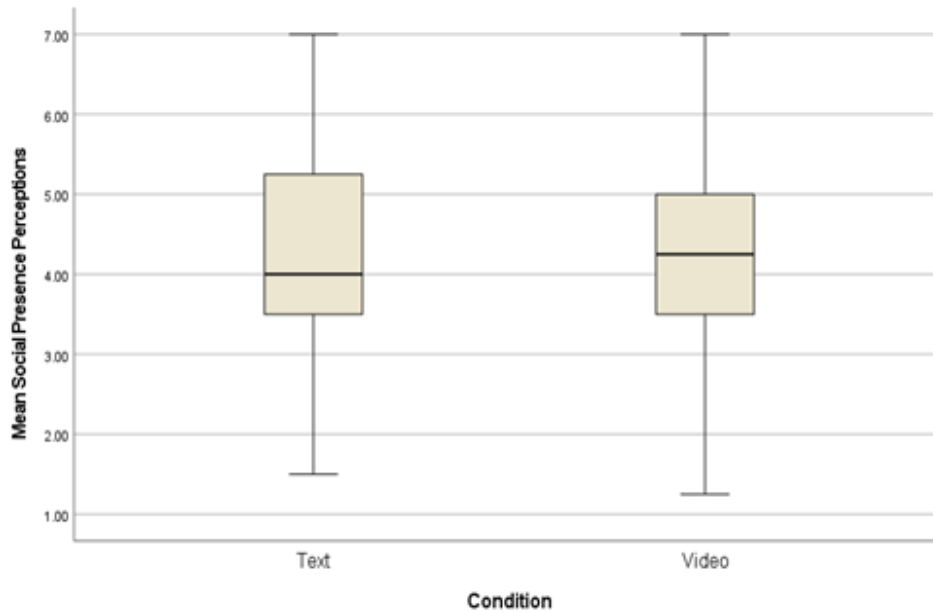
4.2.5 Hypotheses Testing

Means Comparisons (Treatment Effects) Hypothesis 1 stated that applicants' perceptions of social presence will be higher in AVI designs containing video introductions instead of textual introductions and video formatted questions instead of written questions. An independent samples *t*-test revealed no statistical difference in the level of perceived social presence between individuals who experienced video introductions ($M=4.30$, $SE=1.14$) and those who experienced a text-based introduction ($M = 4.30$, $SE = 1.29$) to the organisation. The parameter estimate, 95% CI [-.33, -.42], was not significant, $t(160) = .242$, $p = .809$ and represented a very small effect size, $d = .04$ (Cohen, 1992). Therefore, Hypothesis 1 was rejected.

² A score closest to 1 indicated a high affinity for technology, whereas a score close to 7 indicates a low affinity for technology.

Figure 4.4

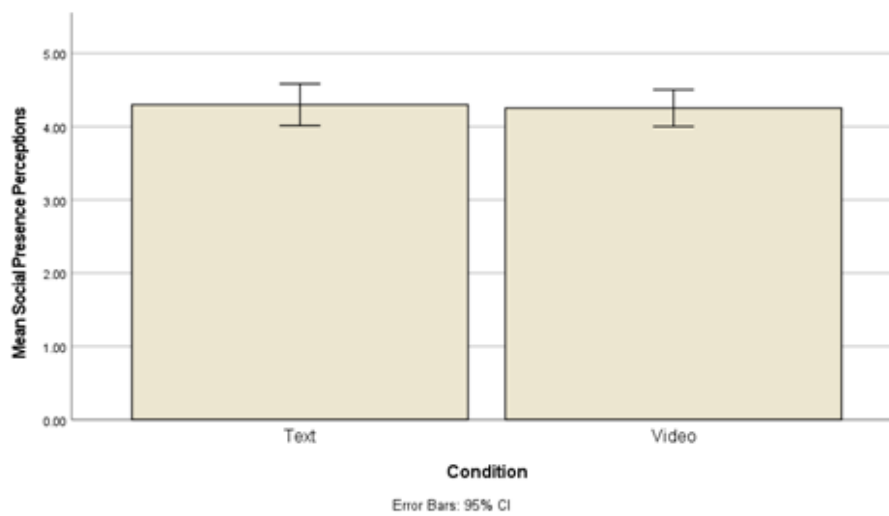
Mean Differences in Social Presence Perceptions between the Video and Text Conditions



Note. Box plot demonstrating the mean differences in social presence perceptions between the video (experimental) and text (control) conditions.

Figure 4.5

Mean Social Presence Perceptions Scores across Video and Text Conditions



Moderator Analyses³. Hypothesis 2a stated that social presence perceptions between video stimuli and textual stimuli will be more pronounced for applicants with high social presence preferences. To test hypothesis 2a, a moderation analysis was performed using SPSS and Hayes PROCESS macro Version 4.0 (Hayes, 2013). For the model setup, model 1 was utilised; the outcome variable was social presence perceptions, the predictor variable was AVI stimulus format (video vs. text) and the moderator variable was social presence preferences (Hayes, 2013). The moderation analysis created an interaction term between AVI stimulus format and social presence perceptions. Based on the analysis output, the b-coefficient, confidence intervals, *t*-statistic and *p*-value were analysed. (Hayes et al., 2017). The results revealed no significant interaction effect, $b = -.15$, 95% CI [-0.45, 0.14], $t = -1.03$, $p = 0.30$, indicating that the relationship between AVI stimuli and social presence perceptions was not moderated by social presence preferences.

Hypothesis 2b stated that applicants' affinity for technology will moderate the effect of AVI stimulus format (video vs. text instructions) on applicant perceptions of social presence. To test hypothesis 2b, a moderation analysis was performed using SPSS and Hayes PROCESS macro Version 4.0 (Hayes, 2013). For the model setup, model 1 was utilised; the outcome variable was social presence perceptions, the predictor variable was AVI stimulus format (video vs. text) and the moderator variable was affinity for technology (Hayes, 2013). The moderation analysis created an interaction term between AVI stimulus format and affinity for technology. The results revealed no significant interaction effect, $b = 0.16$, 95% CI [-0.23, 0.56], $t = 0.82$, $p = 0.41$, indicating that the relationship between AVI stimuli and social presence perceptions is not moderated by applicants' affinity for technology.

4.2.6 Additional Findings

This section discusses additional findings regarding social presence perceptions amongst participants, the effect of screen resolution on the study findings and applicants design preferences which may assist in understanding the study results.

³ Due to the small sample size in the SA sample ($N = 58$), moderation analysis was conducted only on data collected from the USA sample ($N = 162$)

Social Presence Perceptions Medians Comparison amongst Conditions. Given the surprising result from the *t*-test which suggests that applicants in the video condition appeared to experience similar social presence perceptions as applicants in the text condition, the researcher analysed the boxplots comparing the mean social presence perceptions between the two conditions. Based on the boxplots, it is evident that the median score for social presence perceptions in the video condition was higher than the median score in the text condition, suggesting that many participants in the video condition had social presence perceptions above the reported mean. The median social presence perceptions scores suggest that participants in the video condition experienced higher perceptions of social presence than those in the text condition.

Resolution.⁴ Although the video stimulus was recorded using 1080p screen resolution, data collected from participants' responses indicated that several participants viewed the stimulus at a screen resolution lower than 1080p. Therefore, the researcher ran an additional analysis to test whether or not differences in screen resolution affected applicants' perceptions of social presence in the AVI. To conduct the analysis on screen resolution, the researcher split screen resolution into three groups. Participants who viewed the video stimuli at a resolution below 1280p were categorised into the lower resolution group, participants who experienced a screen resolution of between 1280p and 1920p were categorised in the average resolution category and participants who experienced a resolution of above 1920p were categorised in the higher resolution category. An ANOVA was used to compare the mean social presence perceptions scores between three various screen resolution groups. The results revealed that there was no significant effect of resolution on social presence perceptions of the AVI experience, $F(2, 78) = .312, p = .733$. Table 4.7 displays the differences between the means in each resolution group.

⁴ The data suggests that 97% of respondents in the SA Sample viewed the video stimulus at the resolution that it was recorded in or higher. Therefore, a further analysis on the effect of screen resolution on applicants' social presence perceptions was not conducted in the SA sample.

Table 4.7*Effect of Resolution on Social Presence Perceptions in the Experimental Condition (N=81)*

Resolution	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>
Lower resolution	11	4.00	.98
Average resolution	53	4.29	1.18
Higher resolution	17	4.30	1.14

Design Preferences. To explore the design preferences of participants with regard to textual instructions and video-based instructions, descriptive statistics to determine the mean and standard deviations scores were run on the design preferences variable. The results revealed that participants' preferences were dispersed; however, majority of participants preferred video-based instructions ($M = 4.62$, $SE = 1.95$), indicating that individuals differ in their design preferences.

Statistical Power. A post hoc power analysis was conducted using the G*Power3 software package to estimate the statistical power of the t -test model (Faul et al., 2007). A sample size of 162 and effect size of $d = .04$ was utilised to conduct the power analysis. The alpha level used for the analysis was, $p = 0.05$. Generally, high statistical power is indicated by a statistic of .80 or greater (Osborne, 2013). The analysis revealed that the statistical power of the overall model was .06, indicating a very low statistical power for the t -test conducted in the study (Cohen, 1992).

Chapter 5: Discussion

This study had two aims; to explore how differences in using video stimuli in an AVI rather than textual stimuli may impact applicant perceptions of social presence, and to explore how individual difference characteristics, such as affinity for technology and social presence preferences, may impact applicant reactions. Despite their importance due to being linked to applicant perceptions of the organisation, applicant reactions in AVIs have received minimal research attention (Konradt et al., 2017; Lukacik et al., 2020). It is important to consider individual difference characteristics as individuals do not appear to respond to stimuli formats in the same way.

The discussion of the study findings is divided into five sections. First, the main findings are addressed and discussed in comparison to existing literature. Next, the theoretical implications of the current study are presented. This is followed by a description of the practical implications of the study that practitioners may consider. The fourth section discloses the limitations of this study and finally, the fifth section provides recommendations for future research.

5.1 Main Findings

The findings of this study relating to applicants' social presence perceptions of AVIs containing video and textual stimuli, and the role of their individual difference characteristics on their perceptions of social presence in AVIs, are presented in this section.

5.1.1 Video Stimuli in AVIs May Not Enhance Social Presence Perceptions

In line with the Social Presence Theory (Short et al., 1976), which suggests that presence is favourable for an interaction, it was expected that video stimulus format would increase applicants' perceptions of social presence in the AVI. The study results were mixed between the two samples. From the SA sample results, it appears that AVI stimulus format and applicant perceptions of social presence may be related. This suggests that applicants who experience a video-based AVI are more likely to have higher social presence perceptions relating to the AVI experience (Lukacik et al., 2020), which is a novel finding not reported in previous studies. However, results from the USA sample appear to show that AVI stimulus format and applicant perceptions of social presence may not, in fact, be related, suggesting that

applicants who experience video and text-stimuli based AVIs may have similar perceptions of social presence relating to the AVI experience.⁵

A plausible contrasting explanation for the surprising perceptions of social presence reported amongst the USA sample respondents relates to the measurement of perceived social presence. Based on the median scores, the results suggest that majority of participants who were exposed to the video condition reported social presence perceptions scores above the group mean. Therefore, it appears that participants in the USA sample who experienced the video condition rather than the text condition may, in fact, have demonstrated higher perception of social presence relating to the AVI compared to those who experienced the text condition.

The findings of higher perceptions of social presence in the video condition amongst SA respondents are consistent with Lukacik et al.'s (2020) proposal that the use of video-based company introductions and video question formatting in an AVI would increase applicants' social presence perceptions of the AVI experience. There have been no studies on the effect of the differences in AVI stimulus format on applicant perceptions, with previous research (e.g., Basch et al., 2020) instead investigating the difference in social presence perceptions between traditional interviews and digital interviews. Based on past studies, it was found that individuals preferred face to face interviews to digital interviews, with this attributed to considerably higher individuals' perceptions of social presence in traditional interviews (Basch et al., 2020; Blacksmith et al., 2016). Based on this study, it is suggested that in South Africa, social presence perceptions in a digital interview can be enhanced by including video stimuli, such as a video based company introduction and video-based interview questions.

Organisations should be concerned about the benefits offered by using video-based AVI stimuli. Although results from the SA sample suggested that incorporating video-based AVI stimuli may improve perceptions of social presence compared to the inclusion of textual AVI stimuli, the study findings did not present a major difference in social presence perceptions scores between participants who experienced the video AVI condition and participants who experienced the textual condition. The small difference in perceptions of social presence within the conditions in the SA sample was surprising as the participants in the textual group reported high social presence perceptions scores despite not encountering the presence of another. From the Social Presence Theory (Short et al., 1976), the presence of another is favourable for an

⁵ Based on this surprising finding, the researcher re-checked the data cleaning and analysis procedures. Following a thorough check of the data, no faults were found and the scores of social presence perceptions amongst the video and textual AVI stimulus conditions remained the same.

interaction. Given that participants in the text group experienced desirable levels of social presence, the meaningfulness of presenting video stimuli in digital interviews should be questioned. Based on the study findings in the SA sample, it is evident that video AVI stimuli, such as a video-based introduction to the organisation and video-based interview questions, demonstrated greater social presence than textual stimuli. However, including video stimuli in a digital interview presents various added costs and considerations to the organisation. In the current study, for example, Amazon Web Services was used as a host site for the video stimuli. If the study was conducted on a larger scale, the researcher would have acquired additional costs for data usage. Furthermore, hiring or purchasing a good quality camera to record the stimuli may prove to be costly to the organisation. In contrast, text-based AVIs promote simplicity and ease of use. For instance, by utilising textual stimuli, organisational practitioners will not have to consider the possibility of unequal access to the video stimuli amongst applicants, especially in developing countries. Furthermore, organisational practitioners will not have to account for potential buffering effects. However, the advantages of utilising video stimuli should not be ignored.

Perhaps individuals are accustomed to text in technology mediated assessments as they are quicker to read and demonstrate more explicit cues about what to do. For instance, textual stimuli contain no noisy signals and cues such as verbal and non-verbal communication, which applicants may use to gather information and manage impressions (Dipboye et al., 2012). Therefore, it seems that using video-based stimuli in AVIs may not be more beneficial than using text-based stimuli in terms of applicants' perceptions of social presence.

The fact that participants in the AVI, who viewed a text-based introduction to the organisation and question formatting, had equal degrees of social presence perceptions as those who saw a video-based introduction to the organization, could be due to personal design preferences (Lukacik et al., 2020). For instance, in the case where individuals preferred text to videos, a lack of presence of another may not have considerably affected their overall perception of social presence. Based on the results, participants' design preferences appeared to be dispersed regarding text and video based AVI designs.

The results suggest that the overall perceptions of social presence were higher amongst SA respondents, given that SA respondents rated the same video interview as higher in social presence compared to USA respondents. A possible explanation for the higher perceptions of social presence amongst South Africans is that fewer participants in the South African sample had previously taken part in an AVI, compared to the USA sample, where it appears that a substantial number of participants had prior AVI experience. As a result, prior AVI experience

may have influenced participants' perceptions of social presence based on the AVI design they had previously been exposed to, implying that prior AVI experience may affect applicants' reactions in an AVI (Suen et al., 2019).

It should also be noted that although the AVI video stimulus was recorded using 1080p screen resolution, the data collected from both samples suggested that several participants observed the video stimulus at a lower screen resolution. A potential explanation for this is that participants utilised different devices to take part in the digital interview, and older models of certain devices could only display videos at a lower resolution (Bridgeman et al., 2003). To account for this unexpected finding, the researcher investigated if resolution affected applicants' social presence perceptions. Based on the results, there appeared to be no significant effect of resolution on applicant social presence perceptions. Therefore, differences in screen resolution did not affect participants' perceptions of social presence in the AVI.

5.1.2 Individual Differences

Results suggest that the effect of AVI stimulus format (video vs text) on perceptions of social presence amongst respondents may not depend on applicants' social presence preferences and affinity for technology. In this study, the first individual difference characteristic the researcher measured was applicants' social presence preferences. To recapitulate, social presence preferences refer to individuals' desire to feel social presence in interactions. Regarding social interactions, previous research highlighted that individuals who value social interactions may value a high sense of social presence in a virtual interaction, and individuals who are unsociable may have a lower desire to feel social presence in an interaction (Cortese & Seo, 2012). Therefore, it was expected that individuals' social presence preferences would affect participants' perceptions of social presence in an AVI. However, the results suggest that applicants' social presence perceptions of the AVI experience did not, in fact, depend on applicants' social presence preferences.

Organisational practitioners should take applicants' social presence preferences into consideration. A notable finding from the results was that majority of participants from both the SA and USA sample appeared to demonstrate fairly high social presence preferences scores, suggesting that majority of participants had a high desire to feel social presence in the AVI. This finding serves to inform organisational practitioners about applicants' preferences when partaking in a digital interview.

The second individual difference characteristic the researcher measured was applicants' affinity for technology. As mentioned earlier, affinity for technology is associated with individuals' acceptance of technological advancements (Basch et al., 2020). Previous research highlighted that individuals who accept technological advancements tend to be drawn towards technological interaction, and as a result, are inclined to have more positive experiences when utilising new technologies than those with a lower affinity for technology (Basch et al., 2020; Jin & Divitini, 2020). Supporting this idea, the Technology Acceptance Model (1989) suggests that individuals who perceive the technology to be useful will value its features. Therefore, it was expected that the applicants' perceptions of social presence in the text and video AVI conditions would depend on their technology affinity. Although the results confirmed that the applicants differed in their affinity for technology, the results also suggest that their perceptions of social presence in the AVI did not depend on their technology affinity.

In line with the findings on the applicants' affinity for technology, the results suggest that differences in affinity for technology between respondents in the SA sample USA sample were relatively small. This finding is surprising because South Africa is a developing country and exposure to technology varies; as such, it was expected that participants from the SA sample would demonstrated a lower affinity for technology than participants from the USA (Foxcroft & Roodt, 2006). A potential explanation for the similar affinity for technology scores amongst both samples may be related to the age of participants (Jin & Divitini, 2020). For instance, the average age of participants from the American sample was higher than the average age of participants in the South African sample. Therefore, the younger participants in the SA sample may have been more familiar with new technologies.

To sum up, the current study demonstrated that the use of video AVI stimuli may not enhance perceptions of social presence amongst applicants, while the use of text-based AVIs may be more beneficial to the organisation. Furthermore, the researcher found that individual difference characteristics, such as social presence preferences and affinity for technology, did not affect participants' social presence perceptions of the AVI.

5.2 Implications for Theory

These results have various theoretical implications. First, the researcher contributed to the body of knowledge by providing an understanding into the effect of AVI stimulus format on applicant reactions. The current AVI literature was found to focus on the difference in applicant perceptions between traditional interviews and AVIs, drawing attention to how

artificial intelligence software can be utilised to extract non-verbal behaviours from individuals who participate in an AVI (Basch et al., 2020; Hickman et al., 2021; Melchers et al., 2021; Suen et al., 2020). However, previous research overlooked the fact that AVIs differ due to unique design characteristics. Exploring the impact of AVI stimulus format on applicant reactions enriches the understanding of individuals' perceptions of AVIs. Results have shown that video-based AVI stimuli, such as video based company introductions and interview questions, may not enhance applicants' perceptions of social presence. These results disconfirm Lukacik et al.'s (2020) proposition.

Second, the present study makes a unique contribution to Social Presence Theory (Short et al., 1976) literature by extending the theory in an asynchronous interview context. Earlier studies (e.g., Basch et al., 2020) which utilise social presence theory focus mainly on synchronous interactions that include telephonic and video conference interactions. By extending the Social Presence Theory (Short et al., 1976) to an asynchronous setting, the researcher demonstrated that the theory can be applied in an asynchronous context in South Africa.

5.3 Practical Implications⁶

The current study offers various implications for individual and organisational practice. Since using video instructions and question formatting instead of text did not enhance applicants' perceptions of social presence in this study, the use of video in AVIs (as suggested by Lukacik et al., 2020) is questioned. The use of text based stimuli promotes ease of use and a reduction in costs; as such, costs related to technology-based assessments should not be underestimated (Tippins, 2015). Organisational practitioners must therefore weigh up the perceived benefits of similar applicant reactions in terms of social presence with other considerations like applicants' justice perceptions (McCarthy et al., 2017). It is suggested that

⁶ As a value add to the study, the researcher offered participants the opportunity to receive a feedback report based on their interview performance. The feedback report included details regarding how participants performed in the interview in relation to four key competencies: communication skills, leadership skills, team work skills and time work skills. Furthermore, in the report, the researcher included developmental tips for the competencies that were measured. Participants who opted to receive feedback reports would benefit from the tips on how to further develop the competencies they may have received an undesirable score in.

replication studies should be done to see if the effects are robust and if this recommendation can be supported.

Majority of participants indicated that they desire a high sense of social presence in virtual interactions. Therefore, in designing text-based stimuli, organisational practitioners should include attributes that promote social presence. For example, an avatar welcoming participants to the organisation could be included in the textual stimuli (Lukacik et al., 2020). Furthermore, the researcher found that majority of participants did not have prior AVI experience. Therefore, when setting up digital interviews, organisational practitioners should consider providing applicants with a practice recording attempt to allow applicants to become familiar with the software.

As this study was conducted based on two different samples in two different countries (SA and USA), the generalisability and robustness of the study findings are addressed (Highhouse, 2009).

The study contributes to theory by developing a social presence preferences scale that future researchers can utilise. To the researcher's knowledge, a social presence preferences scale has not been previously developed. The development of this measure was an important element in understanding individuals' reactions in relation to their social presence preferences in the AVI. Future researchers may benefit from this scale as it could be used to measure applicants' social presence preferences in a virtual reminder environment.

5.4 Limitations

Although the current study offers important theoretical and practical insights into the use of AVIs, it is not without limitations. There are four limitations that should be addressed. First, participants were exposed to a mock interview for a hypothetical job, rather than an actual job, where a job offer depended on the outcome of the digital interview (Langer et al., 2017). This may have limited the perceived stakes of the interview and may have negatively affected participants' motivation to perform in the AVI. Furthermore, questions still remain about whether hypothetical scenarios can be generalised to the world of work, where there is more at stake (Highhouse, 2009).

Second, the video interviewing platform required participants to have a stable internet connection. However, it seems that some participants experienced buffering and connectivity issues. Furthermore, certain individuals who were interested in the participating in the study could not do so as they did not have a reliable internet connection in their residential area.

However, utilising a leading digital interview platform mimicked a real-life job interview thus ensuring high fidelity.

Third, generalisability in the South African sample may be limited to young adults because participants were predominantly aged between 21 and 25; therefore, the results may not be generalisable to older participants as the sample did not represent the population (Highhouse, 2009; Rosenthal & Rosnow, 2008) However, the results of the current study are highly relevant for use when conducting digital interviews for entry level positions.

Lastly, measurement issues could not receive sufficient attention in the present study as both sample sizes were relatively small. However, as previously mentioned, previous studies have confirmed the validity of the social presence perceptions scale and the affinity for technology scale.

5.5 Directions for Future Research

Asynchronous video interviews offer numerous possibilities for future research. First, it is suggested that future researchers conduct a field experiment in a real-life organisation, with actual job applicants as participants. Utilising a real-life situation will ensure that the study findings are generalisable as more will be at stake. For instance, exceptional performance in the AVI could result in a potential job offer and participants may therefore provide more serious responses.

Second, future research should consider exploring whether prior AVI experience acts as a moderator to the way applicants perceive AVIs. For instance, if applicants had previously taken part in an AVI, they may have expectations regarding the appearance and efficiency of the AVI. Although the researcher collected this data, looking into prior AVI experience as a moderator was beyond the scope of the current study.

Lastly, future research should consider using Gilliland's (1993) model to explore additional applicant reactions and behaviours. Examples of applicant reactions include interview anxiety, applicant motivation to perform and impress on management (Lukacik et al., 2020). Studies using a broader range of applicant reactions would benefit research and help to further understand AVIs as a selection tool, while taking applicants' reactions into consideration.

Chapter 6: Conclusion

AVIs are a recent development in interview technologies and have garnered considerable attention from organisations. However, there is a lag in research regarding applicants' reactions to different AVI stimulus format. As such, it is important to consider applicants' reactions as they may be linked to applicants' perception of the organisation. To address this unexplored area, the two aims of this study were: (1) to explore how differences in AVI stimulus format may impact applicant perceptions of social presence; and (2) to explore how individual difference characteristics, such as affinity for technology and social presence preferences, may impact applicant reactions.

To test the study hypotheses, a post-test only between-subjects experimental design, was utilised. In this post-test, participants in the experimental group experienced video-stimuli based AVI, whereas participants in the control group experienced textual-stimuli based AVI. Participants in both groups completed a mock digital interview and were presented with a self-report questionnaire that included social presence perceptions, affinity for technology and social presence preferences measures. The study findings revealed that participants in the experimental group had higher perceptions of social presence; however, this difference was not substantial, with participants in the control group demonstrating relatively high perceptions of social presence. Furthermore, the results indicated that applicants' perceptions of social presence in the AVI did not seem to relate to their social presence preferences and affinity for technology. The findings of the present study may make a valuable practical and theoretical contribution to AVI research by creating an understanding of how AVI stimulus format may affect applicant reactions.

References

- Ackerman, P. L., & Humphreys, L. G. (1990). Individual differences theory in industrial and organizational psychology. In M. D. Dunnette, & L. M. Hough (Eds.), *Handbook of industrial and organizational psychology, Vol 1*, 223-282. Consulting Psychologists Press.
- Aguinis, H., Gottfredson, R. K., & Joo, H. (2013). Best-practice recommendations for defining, identifying, and handling outliers. *Organizational Research Methods*, 16(2), 270-301. <https://doi.org/10.1177/1094428112470848>
- Ahn, S., Sah, Y. J., & Lee, S. (2019). Moderating Effects of Spatial Presence on the Relationship Between Depth Cues and User Performance in Virtual Reality. In S. Lee, R. Ismail, & H. Choo (Eds.), *Proceedings of the 13th International Conference on Ubiquitous Information Management and Communication* (pp. 333-340), *Advances in Intelligent Systems and Computing*, vol 935. Springer. https://doi.org/10.1007/978-3-030-19063-7_27
- Alonso, P., Moscoso, S., & Salgado, J. F. (2017). Structured behavioral interview as a legal guarantee for ensuring equal employment opportunities for women: A meta-analysis. *The European Journal of Psychology Applied to Legal Context*, 9(1), 15-23. <https://doi.org/10.1016/j.ejpal.2016.03.002>
- Basch, J. M., Melchers, K. G., Kegelmann, J., & Lieb, L. (2020). Smile for the camera! The role of social presence and impression management in perceptions of technology-mediated interviews. *Journal of Managerial Psychology*, 35(4), 285–299. <https://doi.org/10.1108/jmp-09-2018-0398>
- Basch, J. M., Melchers, K. G., Kurz, A., Krieger, M., & Miller, L. (2021). It takes more than a good camera: Which factors contribute to differences between face-to-face interviews and videoconference interviews regarding performance ratings and interviewee perceptions? *Journal of Business and Psychology*, 36, 921-940. <https://doi.org/10.1007/s10869-020-09714-3>
- Biocca, F., Harms, C., & Gregg, J. (2001, May 21-23). *The networked minds measure of social presence: Pilot test of the factor structure and concurrent validity* [Paper presentation]. 4th Annual International Workshop on Presence, Philadelphia, PA, United States
- Blacksmith, N., Willford, J. C., & Behrend, T. S. (2016). Technology in the employment interview: A meta-analysis and future research agenda. *Personnel Assessment and Decisions*, 2(1),12-20. <https://doi.org/10.25035/pad.2016.002>

- Bobko, P., & Roth, P. L. (2013). Reviewing, categorizing, and analyzing the literature on Black–White mean differences for predictors of job performance: Verifying some perceptions and updating/correcting others. *Personnel Psychology*, *66*(1), 91-126. <https://doi.org/10.1111/peps.12007>
- Bracken, C. C. (2005). Presence and image quality: The case of high-definition television. *Media Psychology*, *7*(2), 191–205. https://doi.org/10.1207/s1532785xmep0702_4
- Brenner, F. S., Ortner, T. M., & Fay, D. (2016). Asynchronous video interviewing as a new technology in personnel selection: The applicant's point of view. *Frontiers in Psychology*, *7*(863), 1-11. <https://doi.org/10.3389/fpsyg.2016.00863>
- Cable, D. M., & Yu, K. Y. T. (2006). Managing job seekers' organizational image beliefs: The role of media richness and media credibility. *Journal of Applied Psychology*, *91*(4), 828-840. <https://doi.org/10.1037/0021-9010.91.4.828>
- Chang, C.-M., & Hsu, M.-H. (2016). Understanding the determinants of users' subjective well-being in social networking sites: An integration of social capital theory and social presence theory. *Behaviour & Information Technology*, *35*(9), 720-729. <https://doi.org/10.1080/0144929X.2016.1141321>
- Chapman, D. S., Uggerslev, K. L., Carroll, S. A., Piasentin, K. A., & Jones, D. A. (2005). Applicant attraction to organizations and job choice: A meta-analytic review of the correlates of recruiting outcomes. *Journal of Applied Psychology*, *90*(5), 928–944. <https://doi.org/10.1037/0021-9010.90.5.928>
- Cohen, J. (1992). Statistical power analysis. *Current Directions in Psychological Science*, *1*(3), 98-101. <https://doi.org/10.1111/1467-8721.ep10768783>
- Cortese, J., & Seo, M. (2012). The role of social presence in opinion expression during FtF and CMC discussions. *Communication Research Reports*, *29*(1), 44-53. <https://doi.org/10.1080/08824096.2011.639913>
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, *16*(3), 297-334.
- Daft, R. L., & Lengel, R. H. (1986). Organizational information requirements, media richness and structural design. *Management Science*, *32*(5), 554-571.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, *13*(3), 319-340. <https://doi.org/10.2307/249008>
- Dipboye, R. L., Macan, T., & Shahani-Denning, C. (2012). The selection interview from the interviewer and applicant perspectives: Can't have one without the other. In N. Schmitt

- (Ed.), *The Oxford handbook of personnel assessment and selection*, (pp. 323-352).
<https://doi.org/10.1093/oxfordhb/9780199732579.013.0015>
- Edison, S. W., & Geissler, G. L. (2003). Measuring attitudes towards general technology: Antecedents, hypotheses and scale development. *Journal of Targeting, Measurement and Analysis for Marketing*, *12*(2), 137-156. <https://doi.org/10.1057/palgrave.jt.5740104>
- Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, *39*, 175-191. <https://doi.org/10.3758/BF03193146>
- Feng, B., Li, S., & Li, N. (2016). Is a profile worth a thousand words? How online support-seeker's profile features may influence the quality of received support messages. *Communication Research*, *43*(2), 253-276. <https://doi.org/10.1177/0093650213510942>
- Field, A. (2013). *Discovering statistics using IBM SPSS statistics*. Sage.
- Foxcroft, C., & Roodt, G. (2006). *Psychological assessment in the South African context*. Oxford University Press.
- Gilliland, S. (1993). The perceived fairness of selection systems: An organizational justice perspective. *The Academy of Management Review*, *18*(4), 694-734. <https://doi.org/10.2307/258595>
- Gorman, C. A., Robinson, J., & Gamble, J. S. (2018). An investigation into the validity of asynchronous web-based video employment-interview ratings. *Consulting Psychology Journal: Practice and Research*, *70*(2), 129–146. <https://doi.org/10.1037/cpb0000102>
- Greenfield, R. (2016, October 17). *The rise of the webcam job interview: 'It was honestly pretty horrible*. Chicago Tribune. <https://www.chicagotribune.com/business/ct-careers-webcam-job-interview-20161017-story.html>
- Guchait, P., Ruetzler, T., Taylor, J., & Toldi, N. (2014). Video interviewing: A potential selection tool for hospitality managers—A study to understand applicant perspective. *International Journal of Hospitality Management*, *36*, 90-100. <https://doi.org/10.1016/j.ijhm.2013.08.004>
- Hammick, J. K., & Lee, M. J. (2014). Do shy people feel less communication apprehension online? The effects of virtual reality on the relationship between personality characteristics and communication outcomes. *Computers in Human Behavior*, *33*, 302-310. <https://doi.org/10.1016/j.chb.2013.01.046>
- Harris, H., Bailenson, J. N., Nielsen, A., & Yee, N. (2009). The evolution of social behavior over time in second life. *Presence: Teleoperators and Virtual Environments*, *18*(6), 434-448. <https://doi.org/10.1162/pres.18.6.434>

- Hassanein, K., & Head, M. (2007). Manipulating perceived social presence through the web interface and its impact on attitude towards online shopping. *International Journal of Human-Computer Studies*, 65(8), 689-708. <https://doi.org/10.1016/j.ijhcs.2006.11.018>
- Hauber, J., Regenbrecht, H., Hills, A., Cockburn, A., & Billingham, M. (2005, September 21-23). *Social presence in two-and three-dimensional videoconferencing* [Paper presentation]. The 8th Annual International Workshop on Presence, London, England
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford Press.
- Hayes, A. F., Montoya, A. K., & Rockwood, N. J. (2017). The analysis of mechanisms and their contingencies: PROCESS versus structural equation modeling. *Australasian Marketing Journal*, 25(1), 76-81. <https://doi.org/10.1016/j.brat.2016.11.001>
- Hertel, G., Schroer, J., Batinic, B., & Naumann, S. (2008). Do shy people prefer to send e-mail?: Personality effects on communication media preferences in threatening and nonthreatening situations. *Social Psychology*, 39(4), 231. <https://doi.org/10.1027/1864-9335.39.4.231>
- Hickman, L., Bosch, N., Ng, V., Saef, R., Tay, L., & Woo, S. E. (2021). Automated video interview personality assessments: Reliability, validity, and generalizability investigations. *Journal of Applied Psychology*. Advance online publication. <https://doi.org/10.1037/apl0000695>
- Highhouse, S. (2009). Designing experiments that generalize. *Organizational Research Methods*, 12(3), 554-566. <http://doi.org/10.1177/1094428107300396>
- Huang, J. L., Curran, P. G., Keeney, J., Poposki, E. M., & DeShon, R. P. (2012). Detecting and deterring insufficient effort responding to surveys. *Journal of Business and Psychology*, 27(1), 99-114. <https://doi.org/10.1007/s10869-011-9231-8>
- Huffcutt, A. I., Culbertson, S. S., & Weyhrauch, W. S. (2014). Moving forward indirectly: Reanalyzing the validity of employment interviews with indirect range restriction methodology. *International Journal of Selection and Assessment*, 22(3), 297-309. <https://doi.org/10.1111/ijsa.12078>
- Huffcutt, A. I., Van Iddekinge, C. H., & Roth, P. L. (2011). Understanding applicant behavior in employment interviews: A theoretical model of interviewee performance. *Human Resource Management Review*, 21(4), 353-367. <https://doi.org/10.1016/j.hrmr.2011.05.003>
- International Labour Organization. (1973). *C138 - Minimum Age Convention 1973 (No. 138)*. https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ilo_code:C138

- James, C. A., Haustein, K., Bednarz, T. P., Alem, L., Caris, C., & Castleden, A. (2011). Remote operation of mining equipment using panoramic display systems: Exploring the sense of presence. *The Ergonomics Open Journal*, 4(1),93-102. <http://doi.org/10.2174/1875934301104010093>
- Jin, F., & Divitini, M. (2020, August 1-5). Affinity for technology and teenagers' learning intentions. *Proceedings of the 2020 ACM Conference on International Computing Education Research*, 48-55. <https://doi.org/10.1145/3372782.3406269>
- Jin, S.-A. A. (2010). Parasocial interaction with an avatar in second life: A typology of the self and an empirical test of the mediating role of social presence. *Presence :Teleoperators and Virtual Environments*, 19(4), 331-340. https://doi.org/10.1162/PRES_a_00001
- Kanning, U. P., Grewe, K., Hollenberg, S., & Hadouch, M. (2006). From the Subjects' point of view. *European Journal of Psychological Assessment*, 22(3), 168-176. <https://doi.org/10.1027/1015-5759.22.3.168>
- Kim, Y., & Sundar, S. S. (2012). Anthropomorphism of computers: Is it mindful or mindless? *Computers in Human Behavior*, 28(1), 241-250. <https://doi.org/10.1016/j.chb.2011.09.006>
- Kirk, R. (2013). *Experimental design: Procedures for the behavioral sciences* (4th ed.). SAGE Publications.
- Konradt, U., Garbers, Y., Böge, M., Erdogan, B., & Bauer, T. N. (2017). Antecedents and consequences of fairness perceptions in personnel selection: A 3-year longitudinal study. *Group & Organization Management*, 42(1), 113-146. <https://doi.org/10.1177%2F1059601115617665>
- Langer, M., König, C. J., & Krause, K. (2017). Examining digital interviews for personnel selection: Applicant reactions and interviewer ratings. *International Journal of Selection and Assessment*, 25(4), 371-382. <https://doi.org/10.1111/ijsa.12191>
- Langer, M., König, C. J., Sanchez, D. R.-P., & Samadi, S. (2019). Highly automated interviews: applicant reactions and the organizational context. *Journal of Managerial Psychology*, 35(4), 301-314. <https://doi.org/10.1108/JMP-09-2018-0402>
- Lavrakas, P. J. (2008). *Encyclopedia of survey research methods*. Sage Publications.
- Lievens, F., & Sackett, P. R. (2017). The effects of predictor method factors on selection outcomes: A modular approach to personnel selection procedures. *Journal of Applied Psychology*, 102(1), 43–66. <https://doi.org/10.1037/apl0000160>

- Lombard, M., & Ditton, T. (1997). At the heart of it all: The concept of presence. *Journal of computer-mediated communication*, 3(2). <https://doi.org/10.1111/j.1083-6101.1997.tb00072.x>
- Lowenthal, P. R. (2010). The evolution and influence of social presence theory on online learning. In S. Dasgupta (Ed.), *Social computing: Concepts, methodologies, tools, and applications* (pp.113-128). IGI Global.
- Lukacik, E.-R., Bourdage, J. S., & Roulin, N. (2020). Into the void: A conceptual model and research agenda for the design and use of asynchronous video interviews. *Human Resource Management Review*, 32(1), 100789. <https://doi.org/10.1016/j.hrmr.2020.100789>
- Magnusson, K. (2021). *Interpreting Cohen's d effect size: An interactive visualization* [Web App]. R Psychologist. <https://rpsychologist.com/cohend/>
- McCarthy, J. M., Bauer, T. N., Truxillo, D. M., Anderson, N. R., Costa, A. C., & Ahmed, S. M. (2017). Applicant perspectives during selection: A review addressing “So what?,” “What’s new?,” and “Where to next?”. *Journal of Management*, 43(6), 1693–1725. <https://doi.org/10.1177/0149206316681846>
- Melchers, K. G., Petrig, A., Basch, J. M., & Sauer, J. (2021). A comparison of conventional and technology-mediated selection interviews with regard to interviewees’ performance, perceptions, strain, and anxiety. *Frontiers in Psychology*, 11, 3851. <https://doi.org/10.3389/fpsyg.2020.603632>
- Mertens, A., Becker, S., Theis, S., Rasche, P., Wille, M., Bröhl, C., Finken, L., & Schlick, C. (2017). Mobile technology improves therapy-adherence rates in elderly patients undergoing rehabilitation—A crossover design study. In V. Duffy, & N. Lightner (Eds.), *Advances in Human Factors and Ergonomics in Healthcare* (pp. 295-308). Springer. https://doi.org/10.1007/978-3-319-41652-6_28
- Miller, F. A., Katz, J. H., & Gans, R. (2018). AI x I = AI2: The OD imperative to add inclusion to the algorithms of artificial intelligence. *OD PRACTITIONER*, 50(1),6-12.
- Nosek, B. A., Alter, G., Banks, G. C., Borsboom, D., Bowman, S. D., Breckler, S. J., Buck, S., Chambers, C. D., Chin, G., & Christensen, G. (2015). Promoting an open research culture. *Science*, 348(6242), 1422-1425. <https://doi.org/10.1126/science.aab2374>
- Nunnally, J. C. (1978). *Psychometric theory* (2nd ed.). McGraw-Hill.
- Oh, C. S., Bailenson, J. N., & Welch, G. F. (2018). A systematic review of social presence: Definition, antecedents, and implications. *Frontiers in Robotics and AI*, 5, 114. <https://doi.org/10.3389/frobt.2018.00114>

- Osborne, J. W. (2013). *Best practices in data cleaning: A complete guide to everything you need to do before and after collecting your data*. Sage.
- Osei-Frimpong, K., & McLean, G. (2018). Examining online social brand engagement: A social presence theory perspective. *Technological Forecasting and Social Change*, 128, 10-21. <https://doi.org/10.1016/j.techfore.2017.10.010>
- Palan, S., & Schitter, C. (2018). Prolific.ac—A subject pool for online experiments. *Journal of Behavioral and Experimental Finance*, 17, 22-27. <https://doi.org/10.1016/j.jbef.2017.12.004>
- Proost, K., Germeys, F., & Vanderstukken, A. (2020). Applicants' pre-test reactions towards video interviews: the role of expected chances to demonstrate potential and to use nonverbal cues. *European Journal of Work and Organizational Psychology*, 30(2), 265-273. <https://doi.org/10.1080/1359432X.2020.1817975>
- Republic of South Africa. (1997). Basic Conditions of Employment Act No.75 of 1997. *Government Gazette, Vol. 390 No. 18491* (5 December 1997). Government Printer.
- Rice, R. E. (1993). Media appropriateness: Using social presence theory to compare traditional and new organizational media. *Human Communication Research*, 19(4), 451-484. <https://doi.org/10.1111/j.1468-2958.1993.tb00309.x>
- Robles, F., Sears, G. J., Zhang, H., Wiesner, W. H., Hackett, R. D., & Yuan, Y. (2013). A comparative assessment of videoconference and face-to-face employment interviews. *Management Decision*. <https://doi.org/10.1108/MD-09-2012-0642>
- Rosenthal, R., & Rosnow, R. L. (2008). *Essentials of behavioral research: Methods and data analysis* (3rd ed.). McGraw-Hill.
- Ryan, A. M., McFarland, L., & SHL, H. B. (1999). An international look at selection practices: Nation and culture as explanations for variability in practice. *Personnel Psychology*, 52(2), 359-392. <https://doi.org/10.1111/j.1744-6570.1999.tb00165.x>
- Sackett, P. R., Lievens, F., Van Iddekinge, C. H., & Kuncel, N. R. (2017). Individual differences and their measurement: A review of 100 years of research. *Journal of Applied Psychology*, 102(3), 254-273. <https://doi.org/10.1037/apl0000151>
- Short, J., Williams, E., & Christie, B. (1976). *The social psychology of telecommunications*. Wiley.
- Siriaraya, P., & Ang, C. S. (2012). Age differences in the perception of social presence in the use of 3D virtual world for social interaction. *Interacting with Computers*, 24(4), 280-291. <https://doi.org/10.1016/j.intcom.2012.03.003>

- Slocum-Gori, S. L., & Zumbo, B. D. (2011). Assessing the unidimensionality of psychological scales: Using multiple criteria from factor analysis. *Social Indicators Research*, *102*(3), 443-461. <https://doi.org/10.1007/s11205-010-9682-8>
- Stone, D. L., Lukaszewski, K. M., Stone-Romero, E. F., & Johnson, T. L. (2013). Factors affecting the effectiveness and acceptance of electronic selection systems. *Human Resource Management Review*, *23*(1), 50-70. <https://doi.org/10.1016/j.hrmr.2012.06.006>
- Suen, H.-Y., Hung, K.-E., & Lin, C.-L. (2020). Intelligent video interview agent used to predict communication skill and perceived personality traits. *Human-centric Computing and Information Sciences*, *10*(3), 1-12. <https://doi.org/10.1186/s13673-020-0208-3>
- Sullivan, I., DeHaven, A., & Mellor, D. (2019). Open and reproducible research on open science framework. *Current Protocols Essential Laboratory Techniques*, *18*(1), e32. <https://doi.org/10.1002/cpet.32>
- Svendsen, G. B., Johnsen, J.-A. K., Almås-Sørensen, L., & Vittersø, J. (2013). Personality and technology acceptance: the influence of personality factors on the core constructs of the Technology Acceptance Model. *Behaviour & Information Technology*, *32*(4), 323-334. <https://doi.org/10.1080/0144929X.2011.553740>
- Takatalo, J., Kawai, T., Kaistinen, J., Nyman, G., & Häkkinen, J. (2011). User experience in 3D stereoscopic games. *Media Psychology*, *14*(4), 387-414. <https://doi.org/10.1080/15213269.2011.620538>
- Tan, M., & Teo, T. S. (2000). Factors influencing the adoption of Internet banking. *Journal of the Association for Information Systems*, *2*(3), 5-18. <https://doi.org/10.1080/10864415.1998.11518312>
- Tang, F., Wang, X., & Norman, C. S. (2013). An investigation of the impact of media capabilities and extraversion on social presence and user satisfaction. *Behaviour & Information Technology*, *32*(10), 1060-1073. <https://doi.org/10.1080/0144929X.2013.830335>
- Tippins, N. T. (2015). Technology and assessment in selection. *Annual Review Organizational Psychology Organizational Behaviour*, *2*(1), 551-582. <https://doi.org/10.1146/annurev-orgpsych-031413-091317>
- Van Iddekinge, C. H., Raymark, P. H., Roth, P. L., & Payne, H. S. (2006). Comparing the psychometric characteristics of ratings of face-to-face and videotaped structured interviews. *International Journal of Selection and Assessment*, *14*(4), 347-359. <https://doi.org/10.1111/j.1468-2389.2006.00356.x>

- Vecchione, M., Alessandri, G., & Barbaranelli, C. (2012). Paper-and-pencil and web-based testing: The measurement invariance of the Big Five personality tests in applied settings. *Assessment, 19*(2), 243-246. <https://doi.org/10.1177/1073191111419091>
- Von der Pütten, A. M., Krämer, N. C., Gratch, J., & Kang, S.-H. (2010). “It doesn’t matter what you are!” Explaining social effects of agents and avatars. *Computers in Human Behavior, 26*(6), 1641-1650. <https://doi.org/10.1016/j.chb.2010.06.012>
- Yoo, Y., & Alavi, M. (2001). Media and group cohesion: Relative influences on social presence, task participation, and group consensus. *MIS Quarterly, 25*(3), 371-390. <https://doi.org/10.2307/3250922>

Appendices

Appendix A: Introduction to the Organisation

Hello and welcome to your digital interview with Hooper. I'm Zara and I'm here helping out the Hooper recruitment team. We appreciate the time you have invested in your Hooper application so far and we hope you find this next step in the process both interesting and fun. If you are not that familiar with Hooper, we are a global company with business operations in 60 countries on six continents. We are growing company filled with energy and excitement. I get to work with a lot of very talented people every day and we all get to work on interesting and challenging projects together.

Okay, so now let us move on to the interview and more about you. This digital interview will help bring your resume to life. Have you ever done a digital interview before? If not, I just want to share some helpful tips with you before you get started.

First, find a quiet place with good lighting where you will not be interrupted for at least a half hour. Try to perform a quick test of your camera and sound.

Once you begin the interview, you will have 60 seconds to prepare a response to the questions posed. Look at the top of your screen during the interview to see the timer. You will be able to stop and start recording again, and you will have an unlimited number of retries, so take your time recording each question.

And finally, do not worry about being too formal. Just try to be yourself, be honest and straightforward. We want to get to know the real you. You just might be the person we will get to work with in the future. I will catch up with you again after you have finished recording. Goodluck and I am Hooping for you!

Appendix B: AVI Questions (video and text conditions)

Interview Question	Dimension Measured
Describe a time when you had to collaborate with others to succeed at a task. What was the task you had to accomplish? What made the collaboration successful?	Communication , Team work
Describe a situation where you had to evaluate the risks, benefits, and potential outcomes of a decision. For instance, buying something important, investing in something, starting a new project, etc. How did you handle it? And what was the outcome?	Critical thinking
Describe a time when you took the lead on a group project. What was the project, how did you behave as a leader, and what was the outcome?	Leadership
How would you handle a situation where your colleagues ignore your ideas and input?	Communication
How do you manage your time and prioritise tasks?	Time management

Appendix C: Ethical Approval Letter



21 07 2021

Farheen Ebrahim

School of Management Studies

University of Cape Town

REF: REC 2021/07/020

Designing Semi-Automated Video
Interviews: Do Preferences and
Technology Affinity Matter?

Faculty of Commerce

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@Commerce UCT



UCT Commerce Faculty Office

We are pleased to inform you that your ethics application has been approved. Unless otherwise specified this ethical clearance is valid until 31-Dec-2022.

Your clearance may be renewed upon application.

Please be aware that you need to notify the Ethics Committee immediately should any aspect of your study regarding the engagement with participants as approved in this application, change. This may include aspects such as changes to the research design, questionnaires, or choice of participants.

The ongoing ethical conduct throughout the duration of the study remains the responsibility of the principal investigator.

We wish you well for your research.

2021.07.21

20:00:12 +02'00'

Jacques Rousseau

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Commerce Faculty
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Appendix D: Cover Letter and Consent Form

Hi there 🖐️

What is this study about?

With the onset of the COVID-19 pandemic and the subsequent increase in remote working, there has been an upsurge in the use of video interviews. At least 60% of hiring managers make use of video interviewing technology. However, the upsurge in video interview usage has not been matched by an equal amount of research. This study, therefore, aims to tackle this gap by investigating how best to design digital interviews.

What is in it for you?

This is a good opportunity to practice your video interview skills at no cost. You will also have the option to enter a raffle to win one of ten \$25.00 vouchers once you have completed this study. You will have to provide your email address at a later stage so that we can contact you should you win a voucher. However, this is optional and up to you.

If you decide to participate in this study, you will be presented with five interview questions. Using your laptop, desktop or mobile device's webcam and microphone, you will have to record yourself answering the interview questions. After you have answered the questions, your recordings will automatically upload to cloud storage. Your videos will be deleted once this study has been completed. You will also be presented with several statements and asked to provide your opinion about them after you have completed the video interview. The entire process should take you approximately 25 minutes to complete.

By selecting 'Yes', you acknowledge your research rights below and agree to participate in this study.

Your Research Rights

The University of Cape Town's Commerce Faculty Ethics in Research Committee has approved this study (REC 2021/07/019, REC 2021/07/020). There are no known risks or dangers associated with this study. The information you provide will only be used as aggregated data. Furthermore, your data will remain confidential and be stored securely on a

cloud storage account. The researchers will be the only individuals who know the password to this account.

Please note that this study will not influence your current or future employment opportunities.

This study is voluntary, and you may withdraw from it at any time.

By selecting 'Yes', you agree to participate in this study.

If you do not want to participate in this study, you can close this window.

If you want a copy of this consent form, or if you have any questions, please feel free to contact the researchers via e-mail at ptlahm005@myuct.ac.za (Ahmed Patel) or ebrfar011@myuct.ac.za (Farheen Ebrahim), or our supervisor, Professor Francois De Kock at francois.dekock@uct.ac.za.

Appendix E: Data Management Plan

Designing Semi-Automated Video Interviews: Do Preferences and Technology Affinity Matter?

A Data Management Plan created using DMPRoadmap

Creator: Farheen Ebrahim

Affiliation: University of Cape Town

Template: University of Cape Town

Last modified: 17-06-2021

DATA MANAGEMENT PLAN DECLARATION

I have not previously created a DMP.

1. PERSONAL AND PROJECT DETAILS

PERSONAL DETAILS

Farheen Ebrahim

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PROJECT TITLE

Designing Semi-Automated Video Interviews: Do Preferences and Technology Affinity Matter?

Principal researcher: Farheen Ebrahim

Co-researcher: Ahmed Patel (PTLAHM005@myuct.ac.za)

STATUS OF APPLICANT

☒ Master student

NAME OF SUPERVISOR

Francois De Kock

francois.dekock@uct.ac.za

DEPARTMENT

Management Studies

2. DATA STORAGE

DATASET SIZE

€ Between 200 GB and 1TB

DATA VOLUME/STORAGE REQUIREMENTS

Data will be stored on the researchers Qualtrics and myInterview accounts. If needed, UCT Netstorage will be utilised.

DATA SECURITY

€ I intend to collect confidential data.

Participants will be required to record and submit videos before completing the study questionnaire. These videos will be stored on the myInterview platform. The study questionnaire will not contain identifiable information.

3. METADATA

The interview and survey data will be accompanied by keywords and a short description taken from the researcher's methods section to provide others with the necessary descriptive information needed to make sense of the data.

4. BUDGET**RELEVANT COSTS**

The myInterview platform will cost \$200 dollars to utilise for two months. The researcher's supervisor will assist with funding for this platform.

Appendix F: Study Measures

Social Presence Perceptions

Social presence perceptions were measured using the 4-item measure developed by Short et al. (1976). Participants were asked how they would describe the interview communication media on a 7-point semantic differential scale including the following pairs:

Impersonal (without involving personal feelings)	Personal (involving personal feelings)
○ ○ ○	○ ○ ○ ○
Insensitive (without showing concern for other's feelings)	Sensitive (Showing concern for other's feelings)
○ ○ ○	○ ○ ○ ○
Cold (unfriendly)	Warm (friendly)
○ ○ ○	○ ○ ○ ○
Passive (Compliant)	Active (Assertive)
○ ○ ○	○ ○ ○ ○

Social Presence Preferences

In an automated video interview, we use different media (for example, video, audio and text) to provide instructions and ask questions. How would you prefer the communication media in automated video interviews to be presented?

Impersonal (without involving personal feelings)	Personal (involving personal feelings)
○ ○ ○	○ ○ ○ ○
Insensitive (without showing concern for other's feelings)	Sensitive (Showing concern for other's feelings)
○ ○ ○	○ ○ ○ ○

Cold (unfriendly)			Warm (friendly)		
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Passive (Compliant)			Active (Assertive)		
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Affinity for Technology

Affinity for technology was measured using a 10-item scale of Edison and Geissler (2003). Participants were required to rate the extent to which they agree with each item on a 7-point Likert scale (1 = *strongly agree*, 7 = *strongly disagree*). Items included:

1. Technology is my friend ...
2. I enjoy learning new computer programs and hearing about new technologies.
3. People expect me to know about technology and I don't want to let them down.
4. If I am given an assignment that requires that I learn to use a new program or how to use a machine, I usually succeed.
5. I relate well to technology and machines.
6. I am comfortable learning new technology.
7. I know how to deal with technological malfunctions or problems.
8. Solving a technological problem seems like a fun challenge.
9. I find most technology easy to learn.
10. I feel as up-to-date on technology as my peers.

Demographic Information Questionnaire

Please answer all of the following.

- 1. Please state your age.**

Click or tap here to enter text.

- 2. Please state your gender.**

Choose an item.

If Other, please feel free to specify here.

3. Which country do you reside in?

Click or tap here to enter text.

4. What is your employment status?

Choose an item.

5. What is your occupation and job level?

E.g., intern, entry level, associate, junior/senior manager, director, CFO, COO, Vice President, CEO, owner

Click or tap here to enter text.

6. What device are you currently using?

Choose an item.

7. Which country are you from?

Click or tap here to enter text.

8. Have you previously undertaken any form of video interview? If yes, please specify which type e.g., synchronous video interview, asynchronous video interview or unsure.

Choose an item.

Choose an item.

9. What time is it?

Click or tap here to enter text.

10. Within the workplace, would you describe yourself as an extrovert or introvert?

Choose an item.

If there are any comments you would like to make, please feel free to do so in the box below.

Click or tap here to enter text.

Thank you for your time!

Appendix G: Validation of Social Presence Preferences Scale

The researcher developed a social presence preferences scale. An exploratory factor analysis was performed on the data from both the SA and USA sample to assess the Social Presence Preferences scale that the researcher developed. A principal axis factor analysis was conducted on the 4 items. The Kaiser-Meyer-Olkin (KMO) value verified the sampling adequacy for the model, $KMO = .844$. A KMO value of .844 suggests that factor analysis can be performed on the data set ($KMO > .50$), based on guidelines by Field (2017). An analysis was run to obtain eigenvalues for each factor in the data set (Costello & Osborne, 2005). One factors had an eigenvalue above Kaiser's criterion of 1, and explained 88.23% of the variance in the questionnaire. Based on the factor matrix, it is evident that all four items loaded onto the first factor. Therefore, it can be concluded that the Social Presence Preferences scale demonstrates uni-dimensionality (Slocum-Gori & Zumbo, 2011).

Table G1

Exploratory Factor Analysis: KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.844
	Approx. Chi-Square	1033.514
Bartlett's Test of Sphericity	df	6
	Sig.	.000

Table G2

Exploratory Factor Analysis: Variance Explained

Factor	Total Variance Explained					
	Total	Initial Eigenvalues		Extraction Sums of Squared Loadings		
		% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.529	88.230	88.230	3.382	84.548	84.548
2	.251	6.271	94.500			
3	.160	3.996	98.496			
4	.060	1.504	100.000			

Extraction Method: Principal Axis Factoring.

Table G3*Exploratory Factor Analysis: Factor Matrix***Factor Matrixa**

	Factor
	1
spp1	.904
spp2	.971
spp3	.955
spp4	.843

Extraction Method: Principal Axis Factoring.

a. 1 factors extracted. 5 iterations required.

Appendix H: Declaration of Language Editor



Kristie
consultants
KRISTIE CONSULTANTS

info@kristie.co.za
www.kristie.co.za
Christine 072 529 1098

Date: 30th January 2022

TO WHOM IT MAY CONCERN

This serves to confirm that I have revised and checked the dissertation titled:

DESIGNING SEMI-AUTOMATED VIDEO INTERVIEWS: DOES AVI STIMULUS FORMAT (VIDEO VS TEXT) AFFECT APPLICANT PERCEPTIONS OF SOCIAL PRESENCE?

This dissertation belongs to Ms. Farheen Ebrahim and is submitted in partial fulfillment of the requirements for the degree of Master of Commerce (Industrial Psychology) at the University of Cape Town. Both language and technical editing followed the prescribed specifications and guidelines of the APA 7th edition.

No content-writing was done whatsoever and language editing was limited to spelling, uniformity and usage of words while technical editing was limited to structural formatting and correct referencing. It is the student's responsibility to ensure that any form of plagiarism does not exist in her work.

Please take note that any variations made to the dissertation after date of signature of this letter are not the responsibility of the editor.

Signed:

Christine Chituyi

30th January 2022