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## Efficacy and benefits of virtual mock interviews: Analysing student perceptions of digital employment preparations

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### Abstract

Mock interviews are an evidence-based method of preparing learners for real employment situations. The effect of novel approaches, such as digital, asynchronous and AI-mediated mock interviews have likewise shown beneficial to students but are currently underrepresented in the literature. This study examined students' satisfaction levels and perceptions related to virtual mock interviews during the Covid-19 pandemic. Findings show that students had a positive experience, insofar as they believed it to be useful in increasing their ability to perform better in a real interview. While differences were noted among multiple variables, the primary factor associated with positive student outcomes seems to be their level of preparedness prior to the simulation.

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## Introduction

Preparing college students for employment-related issues, such as professional interview preparation, provides value to students in their post-graduate career search. The researchers' institution recognizes the importance of interview preparation at the undergraduate level, having instituted a mock interview program conducted by the university's Career Development Centre (the "Centre") for at least twenty years following an evidence-based approach to learning (Neelen & Kirschner, 2020).

The value of undergraduate interview preparation is supported by prior research studies. Career professionals provide feedback and guidance to point out a candidate's shortcomings and acknowledge the areas in which the interviewee excels (Kfoury & Malek 2017). College career centres offer mock interviews and hiring simulations for graduating students to practice interviewing skills in a more formal setting (Huss et al. 2017). A trained career professional can provide worthwhile feedback and guidance to point out candidate shortcomings that should be addressed, as well as strengths where the interviewee excels (Kfoury & Malek 2017).

After the onset of the COVID-19 pandemic, all classes at the researchers' institution moved to online delivery. Live class lectures were delivered via Zoom for classes originally scheduled as traditional, face-to-face teaching modality. The university-wide COVID-19 restrictions and other environmental factors (Neelen & Kirschner, 2020) led to the Centre adopting an automated video mock interview (AVI) utilizing a commercial, online interviewing platform instead of in-person interviews which were previously utilized by the Centre prior to pandemic restrictions. After completing the automated video mock interview, students met online with a Centre representative in a post-interview meeting where each student's AVI evaluation was reviewed.

Based on the noted value of mock interviews and in light of a non-traditional delivery format, the overarching purpose of this paper, therefore, is to examine students' perceptions of a novel, digital interviewing process, and to determine whether or not it is perceived as beneficial in preparing students for future employment opportunities.

### **Background on Pre and Post COVID-19 Formats**

The mock interview experience is part of the researchers' Business Communications class for junior and senior business majors and other non-business discipline areas. In previous years, the Centre conducted in-person mock interviews at the undergraduate level as part of a required junior/senior level course.

In response to COVID 19 restrictions, the Centre selected a commercially-available automated online video interviewing (AVI) platform for all mock interviews. The authors and other course instructors were not involved in the decision-making process regarding selection of the AVI platform. The AVI format, like that described by (Lorin, 2020), required students to videorecord themselves answering a series of interview questions. After completing the activity, the videorecorded questions, answers, and results were reviewed by a Centre representative prior to a post-interview assessment via a live Zoom meeting with each student. Post-interview

assessments provide students with information about the learning state; and provide input to a course grade (Means et al., 2014). This paper discusses findings from an exploratory research study which examines undergraduate participants' perceptions about automated video interview formats for professional interview training and preparation.

## **Literature**

### **Mock Interviews**

Mock interviews are a simulation structured to resemble real interview processes (Huss et al., 2017) and are designed to help candidates equip themselves with the confidence and training to handle real interviews. Mock interviews fit in the competency-based learning framework described by Means et al. (2014). Encouraging critical thinking and reflection (Crandell-Williams et al., 2017), mock interviews provide potential applicants with exposure to the types of inquiries expected in a real interview, along with practice in responding to those questions successfully (Huss et al., 2017) using behavioural interview questions to highlight job-relevant skills, traits, or competencies predicting future job performance (Doll, 2018). Organizations use structured interviews to identify top applicants (Gatewood et al., 2015), and mock interviews familiarize students with structured interview formats (Doll, 2018). Mock interviews are exceptional tools for developing learners' interview skills, especially as technology-mediated interviews become more prevalent in the workplace.

### **Benefits of Mock Interviews**

Mock interviews aide candidates in developing the behavioural, communication, and language skills required to succeed in seeking employment (Tan et al., 2016), develop and sharpen understanding of the interview process, the applicant's chosen industry, and strengths and weaknesses as a skilled worker (Rowell & Mihuta, 2016). Practice interviews, where participants learn by doing (Means et al., 2014), help participants think through answers to potential questions, polish verbal communication skills, and gain confidence, while obtaining feedback and advice from professionals (Huss et al., 2017).

Preparation for interview success is crucial, as well-rehearsed candidates have achieved better results (Ring & Brackett, 2017). Simulated instruction and practice have led to improved active listening (Carter et al., 2018). Focusing on attitude and non-verbal communication reduces distracting habits or nervous gestures, thus avoiding interview blunders (Hansen & Hansen, 2017, as cited in Kfoury & Malek, 2017). Mock interviews also provide an opportunity to practice the application of skills or concepts within a range of different content or problem types in a concrete context related to a student's occupational interests (Means et al., 2014).

Self-efficacy, as defined by Bandura (1997), relates to how people feel, think and act in stressful situations pertaining to accomplishments and personal development. Low self-efficacious individuals may have pessimistic views about achievements and accomplishments, resulting in hesitancy to talk about experiences. Job interview self-efficacy relates to a person's ability to succeed in a job interview situation (Sieverding & Ortner, unpublished manuscript as cited by

Brenner et al., 2016). Practicing for situations like interviewing may help improve one's perceived self-efficacy in interview skills, thereby helping enhance the opportunity to highlight their strengths (Harchar, 2012), and to improve confidence (Carter et al., 2018; Huss et al., 2017).

Previous studies have also established the pedagogical value of mock interviews (Harchar, 2012; Koenigsfeld et al., 2012; Powell et al., 2012). Mock interviews boost student confidence and performance enabling students to think of themselves as professionals (Hansen et al., 2009). Mock interviews are highly correlated with GPAs (Crandell-Williams et al., 2017). Formalized interview techniques had strong positive results for resume building and interviewing skills (McDow & Zabrocky, 2015).

### **Technology-mediated Mock Interviews in Academia**

As college graduates enter a more competitive job market, an increased understanding of how to navigate and communicate within the job market increases their chance of obtaining meaningful employment (Renbarger et al., 2022). Technology-mediated mock interviews help students to practice, skill build, and boost confidence before real interviews, and replicate in-person experiences to assist those with poorer social skills to improve skills for interviewing success (Stanica et al., 2018). Practicing through technology-mediated interviews also reduces anxiety levels among interviewees, enabling them to better cope with the stress of an actual interview (Langer et al., 2016).

### **Benefits of Technology-mediated Mock Interviews**

Technology-mediated mock interviews have further value-add components to design and improve interview training programs for students and organizations. Successful interviewees exhibit characteristics that can be measured and quantified to predict interview success; these characteristics can be taught to improve the skills of others (Naim et al., 2018). Moreover, analysing interviews allows the development of more effective practice methods for students that are better aligned with job search realities, especially for subjects overcoming language barriers (Tan et al., 2017).

According to Means et al. (2014) digital learning systems tailor the learning experience to the needs and interests of the individual learner, as learners work instructional content at their own pace. Adding a technology-mediated interview format to a communications course increased self-reported interview effectiveness (Hudak et al., 2019). The use of computer-mediated interviews for practice amplified the nonverbal skills of interviewees vis-a-vis in person interviews (Langer et al., 2016). For example, a hiring simulation implemented in a marketing course was considered to be a valuable technique for building and improving interview skills (Newberry & Collins, 2012). Technology-mediated interviews are also cost effective (Huss et al., 2017) and have strategic value when properly placed and aligned with training workshops to replicate real-world experiences (Campbell et al., 2015).

### **Technology-mediated Interviews vs. Traditional Face-to-face Interviews**

Despite the benefits outlined above, debate continues regarding the benefits of technology-mediated interviews vis-à-vis in-person interviews and under which circumstances would one

option be appropriate over the other. For example, Sears et al. (2013) found that a lack of videoconferencing knowledge (i.e., tips for effectiveness, procedures, and performance variables) led to negative perceptions of mediated communication skills (as cited by Hudak et al., 2019). Consistent in-person interviews may still be best for positions that involve a great deal of one-on-one client interactions (Dobbs, 2016). Further, technology-mediated interviews may impede socio-emotional interactions resulting in lower perceptions of applicants' social skills (Blacksmith et al., 2016; Hudak et al., 2019). Also, video responses cannot invoke the feelings caused by adrenaline and nerves generated in a worksite setting (Huss et al., 2017). Rasipuram and Jayagopi (2018) found that participants were perceived as better communicators in face-to-face settings.

In contrast, a study of medical student interviewees found that virtual interviews were more effective practice tools than in-person role plays (Campbell et al., 2015). However, while medical students and residents also expressed a preference for in-person interviews, they want the option of virtual interviews due to flexibility and cost effectiveness (Seifi et al., 2020). Also, individuals seem to perform better both verbally and nonverbally in interview settings when practicing, observing themselves through video replay, and receiving focused feedback from others (Hudak et al., 2019). Further, technology-mediated interviews may be more effective for building a rapport between interviewer and interviewee, particularly for young people, than face-to-face interviews (Shapka et al., 2016). Indeed, utilizing innovative interview formats in practice has created new opportunities and challenges for interviewers and interviewees alike, as debate continues over whether newer or more traditional formats are most beneficial.

### **Automated Video Interviews**

One emerging technology-mediated interview format is the automated video interview (AVI) which is conducted through screens where parties are neither co-present nor in the same location, and where technology facilitates recording (Jaser & Petrakaki, 2023). AVIs utilize one-way *asynchronous* interaction where the applicant does not interact in real-time with an organization's representative; AVIs differ from *synchronous video interviews* such as videoconferencing interviews via Zoom or Skype (Lukacik et al., 2022). In the present study, a commercial AVI was used to provide video interviewing training technology in the form of a videorecorded online interview practice tool that mimics a real interview.

AVI approaches have the potential to revolutionize job interview practice (Langer et al., 2016; Naim et al., 2018). Automated approaches use sensor devices that use cameras to capture human behaviour, automatically extracting and evaluating data, and visualization to automate entire interview processes (Langer et al., 2019). However, the perceptions about automated interview approaches by interviewees remain unknown (Blacksmith et al., 2016; Langer, et al., 2017).

The AVI platform used in the present study is similar to the commercial product described in Hansen, et al. (2009) where students respond to a selection from among the product's 1,800 questions, and a webcam records their answers (Perfect Interview, 2003 as cited in Hansen et al., 2009), as well as a product described in Hudak et al. (2019) and Carter et al., (2017), which

utilized a question bank of over 7,000 pre-recorded typical job interview questions, and which used a simulated mock interview web interface where participants received and responded to question prompts. Because immediate feedback is not available with AVI, self-rated performance often serves as a basis for evaluation (Hausknecht et al., 2004). The video recording may also be reviewed after completion for non-verbal communication and body language by a human evaluator, discussed below.

In the present study, participants reviewed their pre-recorded video interview question responses in a post-interview, live Zoom meeting with the Centre's evaluator to provide a more personalized mock interview experience in keeping with tenets of competency-based learning methods (Means et al., 2014). The post-interview Zoom meeting provided personalized feedback to address the nature of a student's misunderstanding of concepts/skills and provided tips for remediation (Means et al., 2014).

Due to the novelty of this area and the underrepresented literature regarding automated virtual mock interviews, this study aims to examine the following research questions on participant perceptions regarding AVI format for mock interview training and preparation:

- a) Are overall satisfaction scores related to pre-interview confidence scores or post-interview confidence scores?
- b) Are pre-interview confidence scores and post-interview confidence scores related?
- c) Were there significant differences in pre-interview confidence and post-interview confidence subscale scores?
- d) Were there significant differences in overall satisfaction, pre-interview confidence, or post-interview confidence scores by demographic variables (age, gender, academic classification, college of academic major)?
- e) Item analysis of two specific survey questions: a) Did participants report that the AVI activity prepared them for future interviews; and b) would participants recommend the AVI activity to other students?
- f) What preparation activities were associated with the highest interview satisfaction scores, pre-interview confidence scores, and post-interview confidence scores?

## **Method**

### **Participants and Procedure**

Participants in this study were enrolled in several sections of an undergraduate business communication course primarily composed of junior and senior-level students. Participants received email invitations from the Centre explaining the nature of the study and requesting that they complete an anonymous Qualtrics online survey tool on a voluntary basis. Survey completion was not connected to any course assignment grade or bonus points. The research study was approved by the institution's human subjects review board.

Participants then completed an automated video mock interview (AVI) using a commercial platform designated and administered by Centre personnel as a required business course

assignment. After the Centre's completion of the digital mock interview, the researchers sent the participants the email invitation to voluntarily participate in the study by completing the online Qualtrics survey per the university's human subjects protocol requirements.

## **Instruments**

Survey methodology was used to efficiently collect data from a relatively large group of participants in a short amount of time. The researchers developed the survey to assess participant perceptions and to garner feedback about the Centre's newly adopted AVI format. The first part of the survey collected demographic data such as age, gender, class level, major, and participant graduation status.

Overall satisfaction scores were derived from a 6-item, 5-point Likert-style subscale, with a high score equating with 5=Strongly Agree to a lower score equating with 1=Strongly Disagree. Internal consistency reliability analysis on the Likert subscales of the subscale revealed an internal consistency of  $\alpha = .892$  for the total scale computed from the raw scores of the six Likert items.

Pre- and post-mock interview confidence scores were derived from a 4-item, 5-point Likert subscale, ranging from a high score of 5=Strongly Agree and a low score of 1=Strongly Disagree. Internal consistency reliability analysis on the Likert subscales of the subscale revealed an internal consistency of  $\alpha = .737$  and  $\alpha = .955$ , respectively for the total scale computed from the raw scores of the four Likert items. For analytical purposes, and due to the sample size limitations, the 5-item Likert data set were condensed into three items (Strongly agree/agree; Neither agree nor disagree; and Strongly disagree/Disagree) to allow for more robust statistical analysis.

## **Results**

### **Descriptive statistics**

After eliminating incomplete responses, the final sample size was 89 participants. Correlation tests were performed to determine if significant relationships exist between the variables and each of the three subscale scores.

### **Overall Satisfaction Scores**

Overall satisfaction subscale scores ranged from 8 to 30 with an overall mean of 26.07 out of 30. Per the first data column of Table 1, the lowest mean satisfaction scores by age were among 25+ year-olds ( $M = 25.45$ ), while the highest mean satisfaction scores were among 18–20-year-olds ( $M = 26.19$ ). Mean satisfaction scores of males were lower ( $M = 25.73$ ) than mean female satisfaction scores ( $M = 26.35$ ). In terms of academic classification, the lowest overall satisfaction scores were among sophomores ( $M = 25.00$ ), while the highest satisfaction scores were among seniors/post-graduates ( $M = 26.66$ ). Graduating seniors comprised more than a third of the sample and recorded slightly lower mean satisfaction scores ( $M = 26.00$ ) than participants responding "no/unsure" as to graduation status ( $M = 26.09$ ). In terms of college of academic major, Ed./ Fine Arts/Nat. Sci. had the highest mean satisfaction scores ( $M = 27.80$ ), while the lowest satisfaction scores were among the Health/Human Serv. group ( $M = 25.84$ ).

### **Pre-mock Interview Confidence Subscale**

Pre-mock interview confidence subscale scores are summarized in the second data column of Table 1. No statistically significant relationship exists between pre-interview confidence subscale scores and overall satisfaction subscale scores ( $R = .043$ ,  $p = .689$ ,  $\alpha = .05$ , two-tailed).

### **Post-interview Confidence Subscale**

Per the third data column of Table 1, scores on the 4-item post-mock interview confidence subscale ranged from 4 to 20. A statistically significant positive relationship exists between post-interview confidence subscale scores, and overall satisfaction subscale scores ( $R = .790$ ,  $p = .001$ ,  $\alpha = .05$ , two-tailed). No significant relationship exists between pre-interview confidence subscale scores and post-interview subscale scores ( $R = .150$ ,  $p = .160$ ,  $\alpha = .05$ , two-tailed).

**Table 1**

#### *Means and Standard Deviations – Subscales*

Variable	Category	Overall Satisfaction Subscale		Pre- interview confidence subscale		Post- interview confidence subscale	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Age bracket	18 to20 years	26.19	3.783	14.85	2.492	17.22	2.708
	21 to 24 years	26.14	4.143	14.65	3.446	17.12	3.290
	25+ years	25.45	6.876	14.82	2.359	16.27	4.474
Gender	Male	25.73	4.409	14.93	3.277	16.88	3.082
	Female	26.35	4.428	14.57	2.850	17.18	3.438
Academic classification	Sophomore	25.00	5.921	14.17	2.526	16.17	4.134
	Junior	26.08	4.132	15.21	3.113	17.08	3.406
	Senior/Post-graduate	26.66	3.730	14.47	3.203	17.50	2.463
Graduating senior	Yes	26.00	4.139	14.29	3.127	17.46	2.734
	No/unsure	26.09	4.530	14.89	3.011	16.89	3.451
College of academic major	Ed/FineArts/Nat. Sci.	27.80	2.280	15.60	1.517	18.80	1.789
	Health & Hum. Serv.	25.84	5.776	14.11	4.095	17.95	3.922
	Business	26.00	4.089	14.85	2.763	16.65	3.084

#### **Research question (a): Are overall satisfaction scores related to pre-interview confidence scores or post-interview confidence scores?**

Correlation tests were conducted to determine if significant relationships exist between satisfaction subscale scores and pre- and post-interview subscale scores. No statistically significant relationship exists between pre-interview confidence subscale scores and overall satisfaction subscale scores ( $R = .043$ ,  $p = .689$ ,  $\alpha = .05$ , two-tailed). A statistically significant positive relationship exists between post-interview confidence subscale scores, and overall satisfaction subscale scores ( $R = .790$ ,  $p = .001$ ,  $\alpha = .05$ , two-tailed).

#### **Research question (b): Are pre-interview confidence scores and post-interview confidence scores related?**



Correlation tests were performed to determine if significant relationships exist between pre- and post-interview subscale scores. No significant relationship exists between pre-interview confidence subscale scores and post-interview subscale scores ( $R = .150$ ,  $p = .160$ ,  $\alpha = .05$ , two-tailed).

### **Item analysis of two survey questions regarding the AVI platform**

Discussed below is analysis of two survey questions that asked participants if a) the AVI platform prepared them for future interviews, and b) whether participants would recommend the AVI platform to other students.

#### **Survey item analysis - research question a: Did participants report that the AVI activity prepared them for future interviews?**

Approximately 84.2% of participants agreed/strongly agreed that the AVI platform prepared them for future interviews ( $M = 4.12$ ,  $SD = 1.085$ ). To account for the sample size, the 5-item Likert data set was condensed into three rankings (Strong Agree/Agree, Neither Agree/Disagree, and Strongly Disagree/Disagree). The majority of 25+ year-olds strongly agree/agree that the AVI platform prepared them for future interviews ( $n = 10$ ), followed next by 21–24-year-olds ( $n = 43$ ). A greater percentage of males ( $n = 34$ ) than females ( $n = 41$ ) strongly agree/agree that the AVI platform prepared them for future interviews. A greater percentage of seniors strongly agree/agree that the AVI platform prepared them for future interviews ( $n = 28$ ), followed by sophomores ( $n = 15$ ). All of the Education/Fine Arts/ Nat. Science college majors, 78.9% of Health & Human Services college majors, and 43% of Business college majors strongly agree/agree that the AVI platform prepared them for future interviews.

#### **Survey item analysis - Research question b: Would participants recommend the AVI activity to other students?**

Overall, approximately 80.9% ( $n = 72$ ) of participants agreed/strongly agreed that they would recommend the AVI platform to other students ( $M = 4.21$ ,  $SD = .994$ ). In terms of age, the 21-24-year-old group reported the highest percentage of strongly agree/agree responses ( $n = 44$ ). Females reported slightly higher percentages of strongly agree/agree responses ( $n = 40$ ) than males ( $n = 32$ ). Seniors reported the highest percentage of strongly agree/agree responses ( $n = 30$ ). By college major, Ed./Fine Arts/Nat. Sci. majors reported the highest percentage of strongly agree/agree responses (100%) by college major.

#### **Research question: What preparation activities were associated with the highest interview satisfaction scores, pre-interview confidence scores, and post-interview confidence scores?**

Per Table 2, most participants (84%) viewed the mock interview purchase and sign-up information, 69% do not remember if they viewed the audio PowerPoint instructions file, 52% do not remember if they attended the mock interview information session, 82% do not remember if they viewed the mock interview checklist for students, and 87% were unsure if they viewed the AVI instructions video.

### **Table 2**

*Pre- Interview preparation activities by activity engagement*

Variable	Category	Overall Satisfaction Subscale		Pre- interview confidence subscale		Post- interview confidence subscale	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Age bracket	18 to20 years	26.19	3.783	14.85	2.492	17.22	2.708
	21 to 24 years	26.14	4.143	14.65	3.446	17.12	3.290
	25+ years	25.45	6.876	14.82	2.359	16.27	4.474
Gender	Male	25.73	4.409	14.93	3.277	16.88	3.082
	Female	26.35	4.428	14.57	2.850	17.18	3.438
Academic classification	Sophomore	25.00	5.921	14.17	2.526	16.17	4.134
	Junior	26.08	4.132	15.21	3.113	17.08	3.406
	Senior/Post-graduate	26.66	3.730	14.47	3.203	17.50	2.463
Graduating senior	Yes	26.00	4.139	14.29	3.127	17.46	2.734
	No/unsure	26.09	4.530	14.89	3.011	16.89	3.451
College of academic major	Ed/FineArts/Nat. Sci.	27.80	2.280	15.60	1.517	18.80	1.789
	Health & Hum. Serv.	25.84	5.776	14.11	4.095	17.95	3.922
	Business	26.00	4.089	14.85	2.763	16.65	3.084

Satisfaction scores are represented in Table 3 below. The highest mean satisfaction scores were among participants that viewed the purchase and sign-up materials ( $M = 26.67$ ), while the lowest mean scores were among participants that did not view the materials ( $M = 22.14$ ). The highest mean satisfaction scores were among participants that said they did not remember listening to the audio PowerPoint ( $M = 26.85$ ), while the lowest scores were among the group that listened to the audio PowerPoint ( $M = 24.13$ ).

Participants that do not remember attending the information session had significantly higher mean satisfaction scores ( $M = 27.17$ ) than participants that did not attend the information session ( $M = 24.59$ ). Participants that were unsure if they viewed the pre-interview checklist recorded the highest mean satisfaction scores ( $M = 26.48$ ) while participants that did not view the checklist had the lowest mean satisfaction scores ( $M = 22.63$ ). Participants that said they were “unsure” if they viewed the pre-interview instructions recorded the highest mean satisfaction scores ( $M = 26.56$ ) while the group that did not view the instructions had the lowest mean scores ( $M = 26.56$ ).

**Table 3**

*Pre-Mock Interview preparation activities*

	Overall Satisfaction Subscale	Pre- interview confidence subscale	Post- interview confidence subscale
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Variable	Category	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Viewed purchase and sign-up information	Yes	26.67	4.163	14.81	2.846	17.37	3.097
	No	22.14	3.485	14.43	3.101	14.43	4.237
	Do not remember	23.57	5.381	14.14	5.014	16.14	3.185
Viewed Mock interview instructions+ Audio” PowerPoint file	Yes	24.13	4.406	14.07	3.327	15.53	2.532
	No	24.62	3.885	13.15	3.783	16.77	3.678
	Do not remember	26.85	4.347	15.23	2.680	17.48	3.268
Attended information session	Yes	26.00	4.924	14.44	2.833	16.67	2.598
	No	24.59	5.223	14.97	3.089	16.15	4.128
	Do not remember	27.17	3.275	14.61	3.087	17.78	2.449
Viewed D2L checklist for students	Yes	25.75	2.375	14.88	2.416	17.25	2.375
	No	22.63	2.774	13.13	2.031	14.63	2.326
	Do not remember	26.48	4.574	14.89	3.160	17.29	3.356
Viewed Big Interview instruction video”	Yes	21.67	6.807	15.67	3.512	13.67	2.517
	No	23.33	2.693	15.22	3.232	16.33	3.162
	Do not remember	26.56	4.312	14.64	3.030	17.26	3.254

**Research question: Were there significant differences in overall satisfaction, pre-interview confidence, or post interview confidence by demographic variables (age, gender, academic classification, college of academic major)?**

Analysis of variance and t-tests examined overall satisfaction subscale scores, pre-mock interview confidence subscale scores, post-mock interview subscale scores, by each of the demographic variables (age, gender, academic classification, graduating senior, and college of academic major) The significance level was set at the 95% level ( $p > .05$ ).

**Overall satisfaction subscale**

No significant differences exist in overall satisfaction scores by age ( $F(2,86) .120, p = .887, \alpha = .05$ ), academic classification ( $F(2,86) .811, p = .270, \alpha = .05$ ), or college of academic major ( $F(2,86) .414, p = .613, \alpha = .05$ ).

**Pre-mock interview confidence subscale**

No significant differences in pre-interview confidence scores exist regarding age, academic classification, or academic major college.

T-tests revealed statistically significant differences in pre-interview confidence scores by gender,  $t(88) = -16.371, p = <.001$  (two-tailed),  $\alpha = .05$ , 95% CI [-5.91, -4.63]. Male pre-interview confidence scores ( $M = 14.93, SD = 3.277$ ) were significantly higher than female scores ( $M = 14.57, SD = 2.850$ ).

T-tests revealed statistically significant differences in pre-interview confidence scores by graduating seniors,  $t(88) = -16.371$ ,  $p = <.001$  (two-tailed),  $\alpha = .05$ , 95% CI [-5.91-4.63]. Participants that said “no/unsure” to graduating had higher mean pre-interview confidence scores ( $M=14.89$ ,  $SD = 3.011$ ) than graduating seniors ( $M = 14.29$ ,  $SD = 3.127$ ).

### ***Post-interview confidence subscale***

Analysis revealed no significant differences in post-interview confidence scores by age, academic classification, or college of academic major.

## **Discussion and Conclusions**

### **Overall Satisfaction Scores**

Overall, the results showed that students had a generally positive view towards the AVI platform, consistent with results found by Dianati et al. (2020) regarding preparations using other instructional technology media. Female overall satisfaction scores were also significantly higher than male scores. Graduating seniors were less satisfied with the AVI interview format than participants that were not graduating. Pre-interview confidence scores were not related to overall satisfaction scores. Therefore, high pre-interview confidence did not necessarily result in high overall satisfaction with the technology-mediated mock interview process used in this study.

### ***Pre-interview and post-interview confidence subscale scores***

Male pre-interview confidence scores were significantly higher than female scores. This contrasts with post-interview confidence scores, discussed below. One study has found that men tend to be overconfident in skills they possess while women tend to be more modest (Pajares, 2002); therefore, it is possible that males provide overly confident self-assessments compared to females.

A statistically significant positive relationship also exists between post-interview confidence subscale scores, and overall satisfaction subscale scores. The higher the post-interview confidence score, the more likely the participant was satisfied with the process overall. Moreover, statistically significant differences exist in post-interview confidence scores by gender. Females may have gained more from the AVI mock interview experience than males as their post-interview confidence scores were significantly higher than males.

Statistically significant differences were found regarding graduating seniors and pre-interview confidence scores. Participants that said “no/unsure” to graduating had higher mean pre-interview confidence scores than graduating seniors. The finding regarding pre-interview confidence scores and graduating seniors contrasts with the findings of post-interview confidence scores. While post-interview confidence was higher for both graduating and non-graduating groups, seniors had significantly higher post-interview confidence scores than participants not graduating. Business majors (the business communication course is required of all business majors) had the lowest post-interview confidence levels of the three groups of majors.

## **Preparation Activities**

The highest mean overall satisfaction scores were among participants that viewed the purchase and sign-up information. The highest mean scores in the other preparation categories were among participants that do not remember or are unsure if they completed a particular preparation activity. Therefore, viewing the purchase and sign-up information was the predominant remembered activity among participants. The least remembered/definitely completed activity was viewing the AVI platform's instruction video. Participants that said they were "unsure" had the highest mean satisfaction scores while the group that said they did not view the instructions had the lowest mean satisfaction scores. Therefore, participants it appears that did not fully engage with the information about the mock interview assignment were the least satisfied with the overall process.

The lowest pre-interview confidence scores were associated with participants that did not view the assignment checklist, followed by participants that did not view the Centre's audio PowerPoint file. The highest pre-interview confidence scores were associated with viewing the platform's instruction video, followed by participants that did not view it. Further, the lowest post-interview confidence scores were among participants that viewed the platform's instruction video or that did not view purchase and sign-up information. The highest post-interview confidence scores were among participants that did not remember attending the Centre's Zoom information session, followed by participants that did not remember viewing the audio PPT.

Therefore, a recurring theme emerging in regard to pre-interview preparation activities is that participants did not remember engaging with mock interview preparation materials or activities. One possible explanation for these results may be that students do not retain information presented in online format. Another possible explanation is that students engage in non-productive, attention-related behaviours (e.g., mindless tech use, as described in Hicks et al., 2021). Further, students could be distracted by activities, such as listening to music, watching TV, cell phone use or Internet use while studying (Calderwood et al., 2014). Additionally, studies have found that multitasking has negative cognitive effects such as declines in working memory performance (Ophir et al., 2009). Finally, students may experience information overload caused by too much screen time or sleep deprivation (Saxena et al., 2021).

## **Students' Voice**

Overall, students had a positive view of the mock interview experience; 84% of participants agree/strongly agree that the mock interview helped prepare them for future interviews, and many reported increased confidence in their interviewing skills with one participant stating, "It was really an easy process and I believe it made me more confident". In order to further evidence student voice, additional expressed participant views from open-ended survey question responses include the following: "Extremely beneficial and helpful regarding my interview progression"; "very informative and did a great job preparing me for the mock interview." With regard to the interviewing platform featured in the study, 80% of participants agree/strongly agree that they would recommend the interviewing platform used in the study. One participant commented that, "The videos that showed step by step on how to work the big interview website were very helpful." In addition to the verbatim student comments presented, the data collection methods used in this report, as well as the overall design, clearly show the value the researchers placed on the students, as the key stakeholders in the experience (Ashton-Hay & Williams, 2023), and the

resulting discussion and implications do well to represent the students' interests and to effect positive change at the instructional level.

### **Significance of the Study**

Overall, our study supports prior research findings that interview practice skill development positively affects self-efficacy (Harchar, 2012) and boosts confidence (Carter et al., 2018; Huss et al., 2017) as well as Hansen et al.'s (2009) findings that mock interviews support student confidence and performance. Our study also supports Stanica et al.'s (2018) findings that AVI interviews boost confidence. As digital and computer-mediated technologies continue to evolve, expanding the literature related to the perceived efficacy of novel offerings from end-users becomes increasingly critical to the utilization and implementation of such programming. Digital interviews including artificial intelligence, at least in the screening rounds, will become increasingly common in the future, and the best way to become proficient while communicating with a screen is through practice. Institutions considering implementation of digital interviewing platforms should be aware of the benefits, yet at the same time cognizant that participants will need coaching and potentially incentivization to review and follow specific instructions in order to garner the most benefit out of the program. Although there is a charge for this at the researchers' university, other institutions implementing a similar program may find more student success if the cost is built into existing technology fees, so as to not deter students from experiencing the full benefit of the experience.

### **Limitations of the Study**

Due to the aforementioned COVID-19 restrictions during the term of the study, no data were available to allow for a comparison between participant perceptions regarding the AVI format and any previously completed traditional in-person or telephone mock interviews.

### **Future Research**

As reported by Hadiyanto et al. (2021), there is practical evidence that 21st century skills can be effectively developed through a blended technique. Therefore, future research should examine the impact of both in-person and AVI interviews when used in conjunction with one another, along with evaluations of AVI, AI-assisted and AVI, AI-led formats (Jaser & Petrakaki, 2023). Additionally, analysing the effect of prior interview experience, technological problems, and other possible variables may provide more detailed information about automated video interviews' individual efficacy. Moreover, focusing on the style of interview, insofar as it includes an informational aspect, could be studied to support its impact on students' networking ability (Kantar, 2023). Finally, action research should be conducted to determine if quizzes should be added to the course plan to enhance student recall regarding the pre-interview preparation activities to enhance the effectiveness of the mock interview experience in future business communication classes.

### **Conflict of Interest**

The authors disclose that they have no actual or perceived conflicts of interest. The authors disclose that they have not received any funding for this manuscript beyond resourcing for academic time at their respective university.

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