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Examining the effectiveness of conducting informational interviews toward contextualising topics in business education

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Abstract: This paper examines the effectiveness of utilising structured informational interviews in a business management course to enhance students' ability to contextualise and articulate the utility of the concepts and techniques covered in the course within the broader framework of managerial functions in practical settings. A comparative performance study of two groups of students is used to illustrate the viability of utilising informational interviews as an experiential instructional tool to achieve the desired learning outcome. The paper also looks at students' perceptions of informational interviews and their impacts on their learning experiences.

Keywords: business education; informational interviewing; experiential learning; instructional methods; management.

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1 Introduction

Business education is known for its broad scope consistent with the overarching impact of business processes on various aspects of people's lives (Caldwell and Anderson, 2019). With an emphasis on imparting knowledge of business theories and practices as well as teaching the fundamental skills required to conduct commerce-related activities, business education encompasses a wide range of programs spanning from traditional academic degree programs to professional development, vocational training, or certification programs to meet specific needs of various stakeholders in the business world. In particular, the business education provided by colleges and universities has been recognised as a driving element for improving business performance and growth (Carlile et al., 2016). Traditional business degree programs offered by universities around

the world follow a curriculum that typically includes a collection of core courses in fundamentals of management, marketing, accounting, finance, and other business-related subjects. To that end, learning about management as a discipline is a crucial component of business education in academic settings. Furthermore, the importance of incorporating experiential and applied learning tools into teaching management topics has been strongly highlighted in the literature (e.g., Reynolds and Vince, 2007; Eckhaus et al., 2017, among others). In fact, the future of teaching management is envisioned to increasingly rely on methods such as action learning, reflection on topics, and contextualisation of concepts to help students 'emerge and engage' in more tangible ways with their educational paths (Carlile et al., 2016).

In a typical college course about management, students are usually taught that management is the practice of achieving organisational goals through effective and efficient utilisation of organisational resources. They are also introduced to specific domains of managerial responsibilities which relate to planning, organising, staffing, leading (directing), and controlling (monitoring or evaluating) functions within an organisation (Heizer et al., 2020). Accordingly, a highly desired learning outcome for every management-related course in the business curriculum is often characterised as students' ability to envision and trace the relationship between the designated skill sets from a technical standpoint and the aforementioned fundamental managerial functions. Instilling such ability among students becomes particularly important in quantitative courses since students' focus on mastering the underlying techniques often does not necessarily translate to identifying their applications in practical managerial settings. On that note, introductory courses in operations management (OM) cover a broad range of quantitative and qualitative methods related to managing the production, storage, and distribution of goods and services. These methods should be intrinsically perceived, interpreted, and applied within the broader and general framework of managerial functions and responsibilities. Therefore, identifying instructional tools that facilitate such outcomes is of critical importance from an assurance of learning standpoint.

This paper examines the effectiveness of utilising structured informational interviews in an introductory OM course to enhance students' ability to contextualise and articulate the utility of the OM concepts and techniques within the broader framework of managerial functions in practical settings. In contrast with previous studies, the paper uses a combination of performance- and perception-based data collected from students to perform analysis and reach results.

1.1 Background and past research

An informational interview by definition is as a two-way interaction between an inquirer and an informed individual for the purpose of gathering information about a specific subject. It has long been recognised by career counsellors as an effective means of exploratory communication between an individual interested in learning about a career field and a working professional in that area to take a first-hand look at the ins and outs of what it is like to work in a profession (Crosby, 2002). Accordingly, career services and alumni offices in colleges and universities usually facilitate such interviews to help students choose their future professions before graduation (Croft, 1995; Mulvaney, 2003). Moreover, informational interviews are often credited for helping students learn about the buzz words and emerging topics related to an occupation as well as providing

them with networking opportunities that can potentially lead to recruitment interviews and job offers (e.g., Gaske, 1984; Mulvaney, 2003; Orr et al., 2011; Addams and Allred, 2015; Teller, 2017; Lun, 2020).

From an educational standpoint, informational interviews can be viewed as a means of promoting discovery learning among students. Introduced by Bruner (1961), discovery learning is an educational theory that capitalises on the learners' ability to use prior knowledge, exploration, experimentation, intuition, and reflection to discover new facts and expand their knowledge domain. To that end, the production of knowledge can be carried out through a guided or unguided (pure) discovery. In pure discovery, the learners receive no guidance as they embark on a journey on their own into the world of unknowns. A guided discovery, however, occurs in structured settings where the learners receive instructions and are navigated toward a specific and predefined set of learning outcomes, thereby elevating the likelihood of achieving the desired outcomes while mitigating the risk of causing a cognitive overflow for the learners. For example, guided discovery learning can be employed in traditional courses to help students construct new knowledge, or reinforce and deepen their prior knowledge, by studying specific cases and conducting experiments inside or outside the classroom. The inquiry-based nature of guided discovery learning usually requires the effective use of experiential and interactive instructional techniques to ensure the active participation of learners in the learning process. (e.g., Hammer, 1997; De Jong and Van Joolingen, 1998; Meyer, 2004; Gijlers and de Jong, 2005; among others). In particular, instructional techniques such as simulation games, research projects, live case studies, structured informational interviews, and internships are among the high-impact practices that fit well within the overall framework of guided discovery learning. These techniques, despite their differences in format, resources, and structural requirements, are based on the same premise that learners develop a deeper comprehension of a subject as they explore scenarios that may not necessarily resemble what is explained in the lecture or the textbook. Moreover, through discovery learning, the learners are more likely to develop a sense of self-confidence about their ability to acquire, sustain and apply new knowledge (e.g., Hammer, 1997; De Jong and Van Joolingen, 1998; Meyer, 2004; Gijlers and de Jong, 2005; Mandrin and Preckel, 2009; Balim, 2009; Baum, 2013; Soltis et al., 2015; Bénéteau et al., 2016; Purkayastha et al., 2019; among others).

A glance at the educational literature reveals that informational interviews, when embedded in college courses, can help students improve their soft skills such as self-confidence, sociability, teamwork, time management, risk management, persuasiveness, and negotiation skills which are required to succeed in a dynamic workplace (Schulz, 2008; Decarie, 2010; Orr et al., 2011). Accordingly, informational interviews have been utilised successfully in career planning courses to help students enhance their sense of self efficacy and vocational identity (Coll and Lay, 2001; Scott and Ciani, 2008). To that end, reported survey results have shown that students find such interviews useful for gaining information that could potentially help with their career choices in the future. (See, Plakhotnik, 2017 for a recent example of such student survey results in an undergraduate management course.) However, applications of informational interviews in higher education settings are not limited to career exploration exercises to help students decide on their future profession. A survey of students in introductory undergraduate and graduate accounting courses showed that they found structured interviews helpful in internalising course concepts and enhancing their self-confidence (Cornell et al., 2013).

Also, informational interviews have been shown to be effective in organisational communication, business communication, or professional communication courses by improving students' ability to collect, synthesise, and present data in a structured format, and enhancing their communication and networking skills (e.g., Gaske, 1984; Hansen et al., 2009; Decarie, 2010; Addams and Allred, 2015; Teller, 2017; among others).

Generally speaking, the main take-away from reported studies is that conducting informational interviews with working professionals provides students with the opportunity to learn about specific career disciplines – while simultaneously improving their communication, networking and other soft skills. However, from a pedagogical standpoint, the issue of whether or not requiring such interviews as a coursework requirement affects students' ability to identify and articulate a linkage between what is covered in the course and what is practiced by a professional in a related career discipline remains largely unexplored. To that end, the few reported studies on the impact of informational interviews on student learning outcomes have relied solely on indirect assessment tools including student questionnaires. This paper reports on an attempt to narrow this gap in the area of management education by utilising a mixture of direct and indirect assessment measures for investigative purposes.

1.2 Instructional challenge

The author's experience indicates that students in an undergraduate OM course mostly lack the ability to map the course topics onto fundamental management processes and articulate the usefulness and value of the OM concepts and techniques in fulfilling the organising, staffing, planning, controlling, and leadership responsibilities of an individual in charge of managing an operation. Lack of such ability prevents students from positioning the designated topics within the broader framework of managerial functions, thereby limiting the applicability and contextualisation of knowledge gained in class.

1.3 Research questions

The objective of this study was to investigate the effectiveness of utilising structured informational interviews in an OM course to enhance students' ability to understand, interpret, and contextualise OM concepts and techniques within the generic framework of managerial functions and enhance their learning experience. Hence, the first question considered in this study was concerned with whether or not assigning a project which requires students to conduct a structured informational interview with a professional manager and compile a report based on critical analysis of their findings would have any impact on students' understanding of the utility of course topics. The second question targeted students' perceptions of the project and how it impacted their individual learning experiences.

1.4 Contributions

The exploratory study was motivated by the scarcity of assessment-based analytical results in the business education literature regarding the utilisation of structured informational interviews for experiential learning in quantitative courses. Hence, the study contributes to understanding the viability of utilising informational interviews in a

structured format as an instructional tool to enhance students' comprehension of the practical utility of topics in introductory quantitative business courses where contextualisation of concepts and techniques is regarded as a critical component of the desired learning outcomes. Furthermore, the study provides insights into students' perceptions of the usefulness and difficulties of working with such an instructional tool.

2 Method

The study utilised a quasi-experimental design based on convenient sampling to examine and compare students' performance subject to the presence or absence of an interview-based term project as required coursework in two otherwise identical instructional settings. Moreover, a survey was conducted to assess students' perceptions of their work on the project.

The use of quasi-experimental research designs to examine the causal effect of policy changes or interventions in educational research (among other areas) has grown rapidly over the past decade. From a theoretical standpoint, quasi-experimental studies are known for deviating from the 'gold standard' of randomised controlled trials by lacking the element of random assignment. In other words, unlike randomised studies wherein subjects are assigned to treatment and control groups by chance, the assignments of subjects to treatment and comparison (baseline) groups in quasi-experimental studies are made based on self-selection or determined by researchers in circumstances where accessibility, regulations, logistics, costs, or ethical considerations render randomised assignments infeasible or impractical. For example, in educational research, changing class sizes, schedules, or modalities may require substantial resources and prove to be overly costly. Also, forming a control group in educational research raises ethical concerns as it could potentially deny some students the benefits of what may prove to be a fruitful intervention, or provide them with an advantage over those in the treatment group who may be exposed to the hazards or risks of an unsuccessful or performancedegrading intervention. Therefore, as a practical research method in real-world settings, quasi-experimental studies imitate a randomised controlled experiment by identifying a comparison group-that shares as closely as possible the same characteristics and attributes as the treatment group-to mark the outcome in the absence of the treatment effect and test causal hypotheses based on independent and dependent variables. However, the reliability of causal claims established through such mimicking mechanism is subject to challenges and limitations such as selection bias and generalisability of results. For example, while quasi-experimental designs are praised for addressing the above-mentioned ethical concerns (among other practical limitations) associated with randomised controlled designs through judicious selection of comparison groups; nevertheless, identifying a properly matched comparison group to establish a baseline can prove to be a hindrance. Accordingly, the designation of the treatment group by the researcher may be subject to ethical concerns due to potential biases that could impact the selection process. More importantly, any causal evidence uncovered by quasiexperimental methods must be viewed cautiously as the findings are driven by an 'as-if random' assignment of the treatment factor, thereby making such evidence less conclusive than those of truly randomised experiments. Therefore, in contrast with randomised experiments where the observed differences in outcomes can be confidently claimed to have been caused by the treatment factor-and not impacted by other factors in

a systematic way—the generalisability of findings from quasi-experimental studies to other populations are less definitive and subject to external validity considerations depending on circumstances (White and Sabarwal, 2014; Gopalan et al., 2020).

In short, quasi-experimental design methods are widely used in various disciplines involving policy-making and interventions in light of logistical or ethical considerations and are generally well accepted among researchers (e.g., Harris et al., 2006).

2.1 Settings and sample

The study was conducted in an accredited business college within a regional University in the US where the core degree program for all undergraduate business majors requires an introductory course in OM. This junior¹-level course is usually offered in multiple sections every fall and spring semester and requires a sophomore²-level course in introductory statistics as its only prerequisite. The primary learning objectives of the course are concerned with students' ability to describe, classify, interpret, and incorporate OM concepts and methods on the one hand and apply quantitative techniques and prescribe solutions to operational problems on the other.

Two groups of students enrolled in multiple sections of the course over a period of four semesters were included in the study. The first groups (hereinafter Group A) was composed of 118 students from three sections of the course taught over three consecutive semesters whereas the second group (Group B) comprised 105 students from two sections taught concurrently in another semester. Table 1 displays the distributions of students in terms of major and enrollment level categories for each section within these two groups. To that end, the chi-square test of independence did not show the differences observed in the frequency distributions of students in each category among the five sections to be significant: namely, $\chi^2(4, N=223)=5.52$, p>0.05, for major, and $\chi^2(4, N=223)=5.08$, p>0.05, for enrollment-level. All sections were taught in a traditional format by the same instructor using the same textbook and instructional material. An online learning management system was utilised to provide supplementary instructions and additional support to students.

2.2 Treatment

Students in Group B were required to complete a term project which involved conducting a structured interview with a management professional and submitting a report containing a critical analysis of their findings. Students in Group A were not assigned such project and completed additional classwork instead.

A critical learning goal for both groups consisted of understanding how specific OM concepts and techniques enable or facilitate performing the fundamental managerial functions of planning, organising, staffing, leading and controlling by an individual in charge of managing the operations within an organisation. Hence, instilling the ability to contextualise and articulate the utility of OM topics within such managerial framework was pursued as a common thread running throughout the semester as topics were covered in the course. Accordingly, scenario-based exercises and case discussions were routinely incorporated into the coursework throughout the semester to foster felicitous practice and learning opportunities for students in both groups to achieve this goal. Students were aware that they would be expected to illustrate their competency in identifying and

articulating the applicability OM topics in practical and scenario-based managerial settings in the exam.

 Table 1
 Breakdown of study groups

		Major				Level			
		iness gement	0	Other		Junior		nior³	
	No.	%	No.	%	No.	%	No.	%	
Group A^a ($N = 118$)	52	44.1	66	55.9	76	64.4	42	35.6	
Section 1 $(N = 41)$	18	43.9	23	56.1	29	70.7	12	29.3	
Section 2 $(N = 46)$	22	47.8	24	52.2	24	52.2	22	47.8	
Section 3 $(N=31)$	12	38.7	19	61.3	23	74.2	8	25.8	
Group B^b ($N = 105$)	35	33.3	70	66.7	67	63.8	38	36.2	
Section 1 $(N = 59)$	16	27.1	43	72.9	37	62.7	22	37.3	
Section 2 $(N = 46)$	19	41.3	27	58.7	30	65.2	16	34.8	

^aInformational interview was not required. ^bInformational interview was required.

The project was introduced to students in Group B as an experiential enrichment opportunity to strengthen their understanding of the relevance, utility and effectiveness of OM concepts and methods in performing managerial functions by interacting with practitioners. It was assigned at the beginning of the semester to provide students with sufficient time to plan accordingly and complete the activities involved. Instructions were provided to guide students through carrying out the project work in multiple steps that included:

- i identifying a qualified professional
- ii making contact and scheduling an interview
- iii preparing for the interview
- iv conducting the interview
- v transcribing the interview
- vi searching for additional sources of information as needed (e.g., industry reports, news releases, etc.)
- vii writing a report.

All students were instructed to seek answers to a specific set of questions and stay focused on exploring the actual or potential manifestations of using OM concepts and techniques as they relate to leading, planning, organising, staffing and controlling

managerial functions throughout the interview. The instructions also clarified that the report was neither intended to merely document a career exploratory exercise, nor was it to be viewed strictly as a conduit for reiterating and summarising the topics covered in class. Rather, it was emphasised that the report must reflect the outcome of their inquiry into which (and to what extent) OM concepts and techniques were being used by the interviewee to manage operations within the targeted organisation. In addition to outlining the status quo, the instructions called for the project report to identify potential areas of improvement with respect to key managerial functions and make recommendations on how OM methods could help the organisation with improving the overall effectiveness and efficiency of its operations. Students were required to use a template provided by the instructor for transcribing and writing their reports to avoid confusion and ensure consistency and uniformity for assessment purposes. The due date for the project was set toward the end of the semester to offer students the opportunity to submit a draft and receive feedback before submitting the final report. The reports were evaluated using a grading rubric which was shared with students in advance.

2.3 Measures

Students in both groups were required to complete a closed-book proctored test, which in part included a module consisting of a series of scenario-based questions. These questions were specifically intended to assess students' ability to contextualise and relate OM concepts to managerial processes and articulate the utility of OM techniques in performing fundamental management functions in various operational settings. The scope, content, format, and difficulty of the scenario-based questions were similar for both groups and matched those associated with the practice cases and scenarios covered in class throughout the semester. The module carried an equally significant weight toward the total test score for both groups. Given the commonality of purpose, focus, structure, content, and scale of the scenario-based examination modules used for both groups, students' scores in this category were adopted as the performance measure for conducting a comparative analysis. Student's project scores in Group B were also used to draw inferences. Furthermore, quantitative measures calculated based on Likert scale survey questions were used to examine students' perceptions of the term project in Group B.

2.4 Hypotheses

Since the project was designed to reinforce students' ability to perceive and interpret OM concepts within the broader framework of managerial functions, it was envisioned that engaging in the project activity would have a positive impact on their performance with respect to this learning outcome. It was also imagined that students would develop positive perceptions of this activity as a learning exercise. Hence, the following null hypotheses were formulated:

Hypothesis 1 (H_{10}). There would be no change in students' ability to contextualising OM concepts and techniques within the broader framework of fundamental managerial functions as the result of requiring a project work based on conducting an informational interview with a management professional; that is, there would be no meaningful difference in students' examination scores between Group A and Group B.

Hypothesis 2 (H_{20}). Students in Group B would not find the project work beneficial toward elevating their understanding of the utility of OM concepts and techniques in conducting managerial functions.

3 Results and analysis

The analysis of variance (ANOVA) shown in Table 2 confirms that the differences observed in the examination scores (out of 100) between the three sections to which the project was not assigned were non-significant. F(2,115) = 0.05, p = 0.9477. Similar results as depicted in Table 3 validate that the variations of the examination and project scores (out of 100) between the two sections that were required to complete the project were also non-significant: F(1,103) = 0.69, p = 0.4093, and F(1,103) = 1.63, p = 0.2042, for examination and project scores, respectively. These results justify the formation of Group A and Group B as described earlier by merging the scores of corresponding sections for comparative analysis.

Table 2 One-way analysis of variance (ANOVA) of assessment scores for group A^a

	Group A^a ($N = 118$)								
Measure		ion 1 = 41)	Section 2 (N = 46)		Section 3 (N = 31)		df	F	Sig.
	M	SD	M	SD	M	SD			
Examination	80.83	10.36	80.13	10.74	80.35	8.38	2.115	0.05	0.9477

^aInformational interview was not required.

Table 3 One-way analysis of variance (ANOVA) of assessment scores for group B^b

		Group B^b ($N = 105$)					
Measure	Secti (N =	ion 1 59)	Section 2 (N = 46)		df	F	Sig.
	M	SD	M	SD			
Examination	90.90	4.32	90.26	3.31	1.103	0.69	0.4093
Project	87.29	5.26	88.52	4.41	1.103	1.63	0.2042

^bInformational interview was required.

It should be also be noted that comparative analyses of students' performance scores in terms of major and level within each group revealed no statistical significance. (See Tables A1 and A2 in Appendix for detailed results.)

Table 4 contains a comparative analysis of examination scores between the two groups. The mean examination score of students in Group B was found to be 12.7% higher than those in Group A. Furthermore, the difference in examination scores proved to be statically significant, t(156) = 10.26, p < 0.0001. Therefore, the first hypothesis (H_{10}) was rejected. Follow-up analysis as displayed in Table 5 showed a strong positive correlation between students' examination and project scores in Group B, r(103) = 0.8776, p < 0.001.

 Table 4
 Comparative analysis of assessment scores between groups

		$\begin{array}{ll} oup \ A^a & Group \ B^b \\ = 118) & (N = 105) \end{array}$					
Measure	M	SD	M	SD	df	t	Sig.
Examination	80.43	9.96	90.62	3.91	155.73	-10.26	0.0000

The *t*-test was conducted for unequal variances, F(117,104) = 6.50, p < 0.0001.

Table 5 Assessment scores and correlation between measures within group B^b

		($Group B^b$ $(N = 105)$		
Exan	Examination Pi		ect	Pearson	
M	SD	M	SD	correlation	Sig.
90.62	3.91	87.83	4.92	0.8776	0.000

^bInformational interview was required.

Students in Group B were asked to complete a short questionnaire that was administered anonymously at the end of the semester. There were 92 completed questionnaires (N = 105, completion rate = 87.6%). The questionnaire in part used a five-point Liker scale to measure the degree to which students agreed with statements asserting that the project helped them develop a more tangible understanding of the utility of OM concepts in facilitating the managerial functions related to planning, organising, staffing, controlling, and leading. Table 6 displays the summary of data gathered from students' responses. The calculated Cronbach's alpha value of 0.895 related to this part showed a high level of reliability and internal consistency of the instrument. The mean score of scaled responses based on a five-point Likert scale and the percentage of respondents who 'agreed' or 'strongly agreed' with the statement referring to the improving effect of the project on students' learning in each category were found to be greater than 4 (out of 5) and 80%, respectively. Table 6 also depicts the 95% confidence interval for the mean score in each category. Therefore, for example, while 91.3% of respondents agreed or strongly agreed that the project helped them understand the utility of OM techniques in relationship to the planning aspect of the managerial functions, the 95% confidence interval for the mean score reflecting the degree to which the respondents concurred with this notion spanned from 4.10 to 4.38.

For the purpose of this study, the evaluation brackets shown in Table 7 were adopted to draw conclusions based on the calculated intervals. Accordingly, for each category, a confidence interval (CI) with a lower bound of 3.41 or higher was interpreted as an indication that students concurred that the project work was beneficial in elevating their understanding of the utility of OM concepts and techniques in relationship to fundamental managerial functions. Therefore, the second hypothesis (H_{20}) was rejected based on students' scaled responses.

^aInformational interview was not required. ^bInformational interview was required.

Table 6 Students' perceptions of project utility

The project work helped me develop a more tangible understanding of the utility of OM concepts in facilitating the managerial function related to:

(cat.)

Category (cat.)	М	SD	95% CI	% (Agree or Strongly Agree)
Organising	4.25	0.71	[4.10-4.40]	89.1
Staffing	4.24	0.75	[4.08-4.39]	83.7
Planning	4.24	0.67	[4.10-4.38]	91.3
Controlling	4.20	0.74	[4.04-4.35]	82.6
Leading	4.29	0.73	[4.14–4.45]	91.3

Strongly disagree = 1, Disagree = 2, Neither agree nor disagree = 3, Agree = 4, Strongly agree = 5. N = 92. $\alpha = 0.895$.

 Table 7
 Evaluation brackets for interpreting scaled results

Interpretation	Evaluation bracket
Strongly disagree	[1.00–1.80]
Disagree	[1.81–2.60]
Neither agree nor disagree	[2.61–3.40]
Agree	[3.41–4.20]
Strongly agree	[4.21–5.00]

In another part of the questionnaire, when asked about which project task they found to be most engaging, 65% of respondents pointed to 'conducting the interview' followed by 24% referring to 'writing the report' and 11% mentioning other tasks. On the other hand, when asked about which project task they found to be most challenging, the top two picks were 'writing the report' (48%) followed by 'preparation for the interview' (22%). Furthermore, 85% of respondents agreed or strongly agreed with the assertion that the project constituted a fruitful learning experience in the course. To that end, the mean and standard deviation of scaled responses in this category were M = 4.24 and SD = 0.71, respectively, with a 95% CI for the mean score spanning from 4.00 to 4.32. It should also be noted that 52% of respondents agreed or strongly agreed (M = 3.47, SD = 1.05) that the project boosted their interest in pursuing a career in OM in the future (95% CI: [3.25–3.69]).

4 Conclusions

This study focused on exploring the effectiveness of conducting structured informational interviews as an instructional tool to address a learning deficiency that is often observed in quantitative business courses: most students have difficulty with identifying and articulating the value and applicability of quantitative methods in facilitating real-life business processes. An introductory OM course was used as the setting for an experiment which involved augmenting routinely conducted scenario-based instructions in class with

a project activity based on expert interviews. In contrast with previous studies, a combination of direct and indirect assessment measures was used to infer results.

The findings of this study suggest that conducting structured informational interviews with management professionals in an OM class can elevate students' ability to contextualise and interpret the utility of OM concepts and techniques within the broader framework of managerial functions, thereby enhancing their overall learning experience. Most notably, while existing studies (e.g., Plakhotnik, 2017; Cornell et al., 2013) used questionnaires to solely capture students' perceptions of structured informational interviews, this study presented performance-based analysis and assessment results to produce tangible evidence in support of its findings. To that end, a comparative analysis between two relatively large groups of students revealed that students in the group which completed the interview project performed significantly better on an examination module than their peers in the group that received the same instructional content excluding the project. The examination module for both groups consisted of scenario-based questions aimed at assessing students' knowledge of the applicability of OM concepts and techniques in implementing managerial processes. The students' examination scores were found to be highly and positively correlated with their project scores.

The study also found that students' perceptions of the value of conducting structured informational interviews and completing the project work were largely positive. About 88% of respondents (N = 92) to a student questionnaire concurred with the notion that the experiential activity helped them develop a more tangible understanding of the utility of OM-related topics in performing managerial functions such as organising, planning, staffing, controlling and leading. Overall, the experiment was perceived to be a success as about 85% of respondents characterised the interview-based project a fruitful learning experience which helped them see the 'big picture' as they worked on mastering the quantitative techniques.

To our knowledge, the performance-based feature of this study is unique among the existing literature on the utility of structured informational interviews in business education. The perception-based findings of this study were generally in line with previously reported results regarding students' attitudes toward assignments involving informational interviews in business courses. For example, according to Plakhotnik (2017), students generally characterised such assignments as useful for learning, and most students indicated that it had a stimulating impact on their interest in pursuing a career in business. Similarly, in Cornell et al. (2013) students agreed that conducting such interviews helped them better understand the course topics in relation to real-world applications. Furthermore, while consistent with Plakhotnik (2017), the current study confirmed that the majority of students found conducting the interview to be the most engaging phase of the assignment, it expanded the analytical framework by assessing students' perceptions of whether the activity had facilitated and enhanced their learning about specific managerial functions. It is also worth mentioning that based on anecdotal and unsolicited comments, students seemed to agree that completing the project had an improving impact on their communication skills and elevated their sense of self-efficacy and vocational identity consistent with the findings of prior research (e.g., Scott and Ciani, 2008; Decarie, 2010; Teller, 2017; among others). Overall, this study succeeded in coalescing notable findings related to students' perceptions and attitudes toward the usefulness of using informational interviews as a learning tool from prior studies with added new results based on an objective assessment of students' performance toward achieving the targeted learning outcomes in a business course.

The potential impact and implication outlook of the study can be viewed from both instructional and administrative standpoints. From an instructional standpoint, it promotes the utility of conducting structured informational interviews as a viable experiential learning tool to improve students learning beyond the traditional scope of mere career exploration or communication enhancing exercises by highlighting a successful application of such interviews toward elevating students' ability to contextualise technical concepts in a quantitative business course. Accordingly, on the administrative side, the study supports cultivating a learning environment in academic institutions that is more in line with the future of business education as described earlier.

The findings of this study are contingent on limitations shared among studies of similar nature and structure due to practical considerations and operational constraints. In this regard, the main limitation associated with the study stems from the quasiexperimental design characteristics of the research method described earlier. Logistical considerations such as scheduling constraints, curricular requirements, and resource limitations-coupled with the prior mentioned ethical considerations surrounding randomised experiments in educational research-rendered the use of a randomised controlled design for conducting this study impractical. Therefore, notwithstanding all the efforts made to identify properly matched comparison and treatment groups, the research design falls short of meeting the gold standard of randomised controlled trials for providing definitive evidence to support the generalisation of the findings to a broader population. Moreover, the study inherently shares another limitation of experiential learning exercises of similar nature due to variations in students' experiences with conducting the assigned activity. In other words, it is conceivable that students might have interviewed managers who possessed different levels of knowledge and expertise toward the application of OM concepts and techniques in fulfilling their managerial functions, thereby leading to extraneous variations in the activity outcomes. However, specific to this study, it should be noted that statistical analysis of students' performance data within each group did not reveal a significant variation. It is also worth noting that survey-based research findings are inherently subject to experimenter demand effects (Mummolo and Peterson, 2019). To that end, although the questionnaire used in this study was administered anonymously and students were ensured that their responses would not have any impact on the grading scheme, there is still a possibility that at least some students might have provided the type of responses that would be in line with what they perceived as the instructor's expectations.

Further research is required to expand on the findings of this study by experimenting with informational interviews in other course settings. For example, while the interview-based projects have been fully incorporated into the course curriculum when taught by the investigator in the face-to-face lecture-oriented format, it remains to be seen if such interviews cause similar effects when introduced in blended or online offerings of the course. In addition to the course modality, the effectiveness of conducting informational interviews as an instructional tool in conjunction with pedagogical approaches such as flipped, peer-to-peer, gamified, and team-based learning (or eLearning) is yet to be investigated. A comparative study of knowledge retention concerning OM topics between students with and without exposure to informational interviews in this introductory course as they advance through their degree programs can also prove to be a valuable, albeit logistically challenging, extension for this study.

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Notes

¹i.e., 3rd year.

²i.e., 2nd year.

³i.e., 4th year.

Appendix

Table A1 Means (M), standard deviations (SD) and comparative analysis of assessment scores within Group A^a

			Group A ^a					
	(N = 118)							
		Exam	ination					
Characteristic	No (%)	M	SD	t(116)	Sig.			
Gender				-0.96	0.3369			
Female	46 (39.0)	79.33	11.38					
Male	72 (61.0)	81.14	8.94					
Level				0.16	0.8757			
Junior	76 (64.4)	80.54	10.74					
Senior	42 (35.6)	80.24	8.48					
Major				-1.55	0.1251			
Business Management	52 (44.1)	78.85	9.68					
Other	66 (55.9)	81.68	10.07					

^aInformational interview was not required.

	Group B^b						
			(N = 105)				
		Exam	ination				
Characteristic	No. (%)	M	SD	t(103)	Sig.		
Level				-0.34	0.7381		
Junior	67 (63.8)	90.52	3.98				
Senior	38 (36.2)	90.79	3.83				
Major				0.92	0.3608		
Business Management	35 (33.3)	91.11	3.88				
Other	70 (66.7)	90.37	3.92				

^bInformational interview was required.

Table A2 Means (M), standard deviations (SD) and comparative analysis of assessment scores within Group B^b (continued)

	Group B^b ($N = 105$)						
		Pro	oject				
Characteristic	No. (%)	M	SD	t(103)	Sig.		
Level				0.06	0.9515		
Junior	67 (63.8)	87.85	5.09				
Senior	38 (36.2)	87.79	4.67				
Major				1.05	0.2954		
Business Management	35 (33.3)	88.54	5.32				
Other	70 (66.7)	87.47	4.71				

^bInformational interview was required.