

EXPLORING CAREER REALITIES:
ELEVATING GRADUATE EMPLOYABILITY THROUGH JOB SHADOWING

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Abstract

Many students in higher education institutions face significant challenges in bridging the gap between theoretical knowledge and practical application within real-world work environments. The Job Shadowing program aims to provide participants with an immersive glimpse into the daily operations of different jobs and workplaces, offering invaluable insights into real-world work environments. As part of the program, students engage with startup companies for a total of eight hours, have the chance to observe firsthand how these businesses function and are tasked with a project to address. Upon completion, students present their findings to the organizations, then receive valuable feedback. The program's effectiveness is assessed and compared through pre- and post-program tests. It revealed a significant improvement with 60% of participating students demonstrating enhanced test scores. Overall, the performance of program participants surpassed that of their non-participating peers, underscoring the program's impact on bridging the gap between academic theory and practical application.

Keywords: Innovation; job shadowing; teaching and learning

Abstrak

Sebilangan pelajar di institusi pengajian tinggi menghadapi cabaran besar dalam mendepkatkan jurang antara pengetahuan teori dan aplikasi praktikal dalam persekitaran dunia kerja sebenar. Program *Job Shadowing* bertujuan untuk memberikan pelajar gambaran sebenar mengenai operasi harian pelbagai pekerjaan dan persekitaran tempat kerja. Program ini menawarkan kepada pelajar pengalaman berharga tentang persekitaran sebenar di tempat kerja. Sebagai sebahagian daripada program ini, pelajar ditempatkan selama lapan jam di organisasi yang dipilih. Pelajar berpeluang untuk melihat secara langsung bagaimana perniagaan diuruskan dan diikuti dengan tugas. Di akhir sesi *Job Shadowing*, pelajar membentangkan hasil kerja mereka kepada pihak pengurusan organisasi masing-masing dan kemudian menerima maklum balas. Keberkesanan program ini dinilai dan dibandingkan melalui ujian yang diberikan kepada pelajar sebelum dan selepas program. Hasil kajian mendapati peningkatan ketara dengan 60% pelajar yang mengambil bahagian menunjukkan kenaikan dalam markah ujian. Secara keseluruhan, prestasi pelajar yang menyertai program adalah lebih baik berbanding pelajar yang tidak mengambil bahagian, membuktikan keberkesanan program dalam mendepkatkan jurang antara teori akademik dan aplikasi praktikal.

Kata kunci: Inovasi; *job shadowing*; pengajaran dan pembelajaran

1.0 INTRODUCTION

In Malaysia, there is a growing concern among employers that recent graduates may not fully meet their expectations (Yong & Ling, 2023). Despite academic qualifications, many employers find that graduates often lack soft skills, such as problem-solving abilities, effective communication, and teamwork (Suyansah et al., 2023). One of the reasons behind this discrepancy could be the emphasis on theoretical knowledge over practical application in the Malaysian education system.

Moreover, soft skills such as critical thinking, adaptability, and interpersonal communication are increasingly valued by employers but may not be adequately developed during academic studies (Succi & Canovi, 2019). This mismatch underscores the importance of integrating practical training, internships, or industry collaborations into educational curricula to better equip graduates with the skills needed in the modern workplace. Addressing these challenges requires collaboration between educational institutions and industries to ensure that curriculum design aligns with current market needs. Initiatives like mentorship programs, industry placements, *Job Shadowing* program and continuous professional development can

bridge the gap and enhance the employability of graduates in Malaysia.

Recognized as one of the experiential learning approaches (Van Wart et al., 2020), Paris and Mason (1995) defined Job Shadowing as:

. . . a work experience option where students learn about a job by walking through the workday as a shadow to a competent worker. The Job Shadowing experience is a temporary, unpaid exposure to the workplace in an occupational area of interest to the student.

In general, Job Shadowing programs provide opportunities for students to learn through direct experience by spending time with experts and professionals (Padron et al., 2017). This hands-on involvement allows students to observe, gain insights, develop skills, and build confidence in real-world settings. Through these assignments, students gain firsthand insight into the work environment, employability skills, and occupational skills in practice. They come to understand the importance of professional training and can explore potential career paths. To sum up, Job Shadowing aims to boost career awareness, provide behavioral role models and to strengthen the link between classroom learning and workplace demands (Almalag et al., 2022).

As of date, the shadowing programs are widely recognized for their effectiveness in modules with extensive practical sessions, such as healthcare (Abe et al., 2023; Husebø & Olsen, 2019; Mafinejad et al., 2022) and technical fields (Radwan & Mousa, 2022), there is a research gap regarding their impact on business management education. Existing studies predominantly focus on disciplines where hands-on experience is integral to the learning process, leaving a limited understanding of how Job Shadowing can benefit students in business management programs. This gap highlights the need for empirical research to evaluate how immersive experiences in real-world business environments influence students' comprehension of management theories, their ability to apply these concepts practically, and their overall career readiness. By addressing this gap, the current research can provide valuable insights into the effectiveness of Job Shadowing as a pedagogical tool in business management education. Understanding its impact on students' learning outcomes, skill development, and professional growth will inform educators and program designers on how to enhance the curriculum to better prepare students for the dynamic challenges of the business world.

Kolb's (1984) Experiential Learning Theory underpins the Job Shadowing program's implementation. According to Kolb (1984), knowledge is generated by integrating theory and experience. His theory emphasizes a cyclical process of experiencing, reflecting, thinking, and acting (Figure 1). For effective learning, students need to engage in all four stages, which cater to different learning styles. These styles are based on two dimensions: doing vs. watching and thinking vs. feeling. This framework allows students to participate in diverse activities, enriching their educational experience. Thus, the Job Shadowing program follows this model by incorporating:

1. **Concrete Experience:** Students engage directly with real-world business environments through Job Shadowing, observing and participating in managerial tasks. Through this, students can witness the practical application of management theories.
2. **Reflective Observation:** After the shadowing sessions, students reflect on their experiences, discussing what they observed and how it relates to theoretical concepts learned in class. This reflection provides opportunities for them to evaluate their experiences critically and recognize the key learning points.
3. **Abstract Conceptualization:** Students analyze their reflections, linking practical experiences with management theories. This stage permits them to deepen their conceptual knowledge by assessing how the real-life practices align with or differ from theoretical frameworks.
4. **Active Experimentation:** Students use their newly acquired knowledge and insights to engage in class activities, simulations, and projects. This practical application strengthens their learning and allows them to refine their understanding of management principles in a business environment.

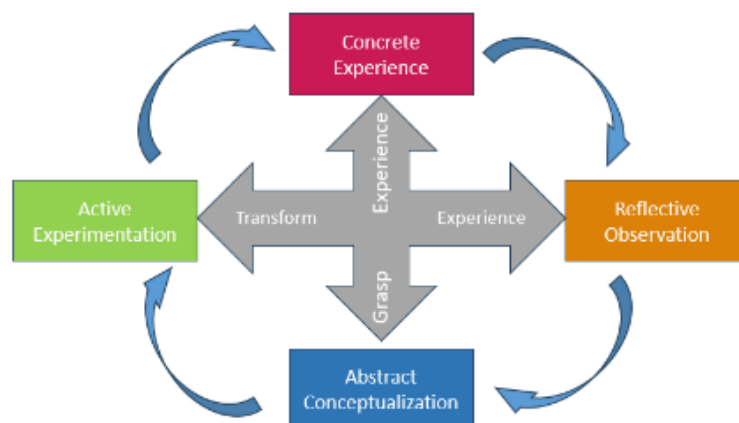


Figure 1. Kolb's (2005) experiential learning cycle

The Job Shadowing program is introduced as a component of the Principles of Management module. The module introduces students to management functions and how it contributes to the efficiency and effectiveness of organisations. It is classified as a core module, which is required for all Business-related degree students. Students pursuing Computing and Communication degree are also required to enrol this module. Specifically, Job Shadowing in the field of business management is particularly beneficial for students from various disciplines. It offers an in-depth understanding of the business industry, the roles of various positions within a company, and how these roles collaborate to achieve organizational goals. The experience provides students with real-world insights that cannot be fully replicated in a classroom setting. Examples include:

- **Observation of management practices:** Students can observe daily management practices, including problem-solving processes, decision-making processes, team coordination, and leadership styles.
- **Understanding operational workflows:** Observing operational workflows and how different departments interact to achieve business objectives.
- **Customer relationship management:** Understanding how businesses address customer concerns and feedback.
- **Marketing and promotion:** Gaining insight into marketing techniques and strategies used to promote products or services, including market analysis and campaign execution.
- **Communication skills:** Observing the communication dynamics between managers, team members, and external stakeholders, enhancing their understanding of effective communication in a business context.

The 2-session program immerses students in the real business world, allowing them to experience managerial skills firsthand. Its core mission is to bridge the gap between theoretical management concepts and their practical applications within organizations (Almalag et al., 2022). In relation to this, the objectives of Job Shadowing program include:

- To provide opportunities for students to experience a realistic view of a job and workplace;
- To demonstrate how management theories are applied in the real world; and
- To explore career opportunities and to build networks with future employers or peers.

The design of the Job Shadowing program involves managerial personnel from startup companies as industry partners. These partners assist in designing the assessments by

defining clear learning objectives and aligning them with educational standards and the needs of the students and industries. Feedback loops are established to gather input from students, educators and industry partners on the effectiveness of the program. Additionally, assessment tools and methodologies are designed to measure student learning outcomes and impact of Job Shadowing experiences. Integrated into every batch of the undergraduate Principles of Management module, the program remains agile and responsive, which allows for incorporation of feedback, adaptation to shifting industry needs, and capitalization on emerging educational advancements.

The implementation of Job Shadowing is viewed as one of the innovative teaching and learning methods since it promotes interactive learning through firsthand observation and engagement. The design of the program transforms learning from passive to active, connects theory with practice, and prepares students more effectively for their future careers by providing valuable real-world experiences. In essence, Job Shadowing not only prepares students for professional success but also empowers them to become agents of positive change in promoting sustainability and wellbeing. It equips them with the practical experiences, critical insights, and valuable connections necessary to navigate and shape a future where environmental stewardship and holistic human flourishing are central priorities.

2.0 MATERIALS AND METHODS

A randomized, pretest-posttest, control-group experiment design is chosen to gauge the program's effectiveness for each batch of Job Shadowing. The research design is as per Figure 2.

The study was conducted over a 14-week semester and involved students enrolled in the Principles of Management module. Students' final grades for the module were determined through assessments, comprising of a class test, group assignment, presentation, and final examination. In week 1, a sample of 48 students were selected and randomly assigned to the experimental group (N = 22) and the control group (N = 26). The small sample is deemed to be sufficient based on the guideline by Gall, Borg and Gall (1996). In week 5, participants from both groups underwent a pre-test formative assessment, administered as a class test. This is a baseline measurement taken before the students participated in the Job Shadowing program. The pre-test captures the initial knowledge or skills the students have before any additional learning interventions, such as experience through the Job Shadowing program.

In week 6 and week 9, only the experimental group engaged in the Job Shadowing program, while the control group did not participate in any job shadowing activities. The Job Shadowing program consisted of two sessions, each lasting 8 hours, in line with OECD guidelines, which recommend a typical job shadowing duration of half a day to a full day (OECD, 2022). The short duration was considered sufficient, as students in such programs are not expected to perform work tasks or develop specific hard skills. This design was consistent with similar studies by Mafinejad et al. (2022) and Abe et al. (2022).

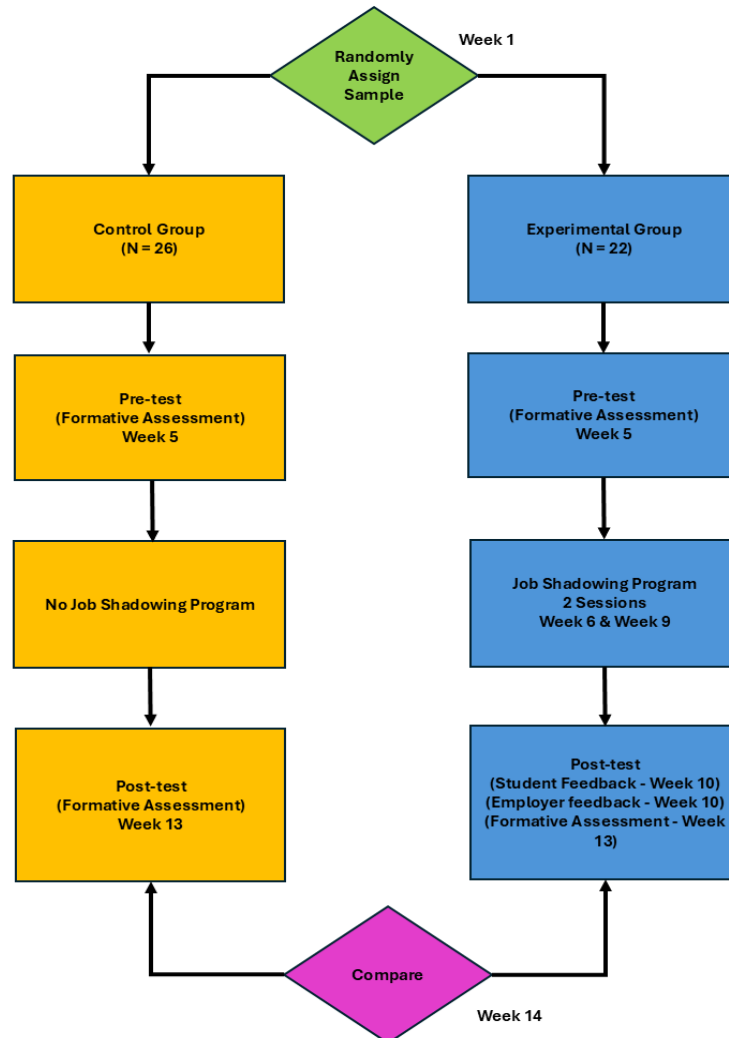


Figure 2. Research design

In Week 10, participants from the experimental group were asked to provide feedback via questionnaire to gather both quantitative and qualitative data on their experiences, insights gained, and perceived value of the Job Shadowing program. On the other hand, employers were invited to offer feedback to evaluate the performance and engagement of the participants from the perspective of industry professionals. In week 11, all students were required to submit a group assignment focusing on the investigation of a chosen company's management

practices and to present their findings. Participants in the Job Shadowing program centered their reports on the companies they were assigned to, offering insights from their firsthand experiences. In contrast, non-participants selected companies to research and based their reports on information gathered from news articles, reports, and other available sources. In week 13, both the experimental and control groups participated in a post-test formative assessment, which was conducted as a final examination. The purpose of the assessment for the experimental group was to measure the direct impact of the Job Shadowing program on their understanding and skills. For the control group, the assessment aimed to gauge any changes in understanding and skills without the influence of the Job Shadowing program.

Finally, in week 14, the pre-test and post-test results from the formative assessment were compared, and the post-test results from both the experimental and control groups were analyzed to evaluate the overall effectiveness of the Job Shadowing program. In addition to that, feedback from students and employers in the experimental group were also analyzed to provide a comprehensive understanding of the program's impact on participants' learning and professional development.

3.0 RESULTS AND DISCUSSION

The comparative analysis between pre-test and post-test results (Figure 3) showed a notable improvement, with 64% of participants performing better after the Job Shadowing sessions. This improvement highlights the program's effectiveness in enhancing students' knowledge and skills through experiential learning.

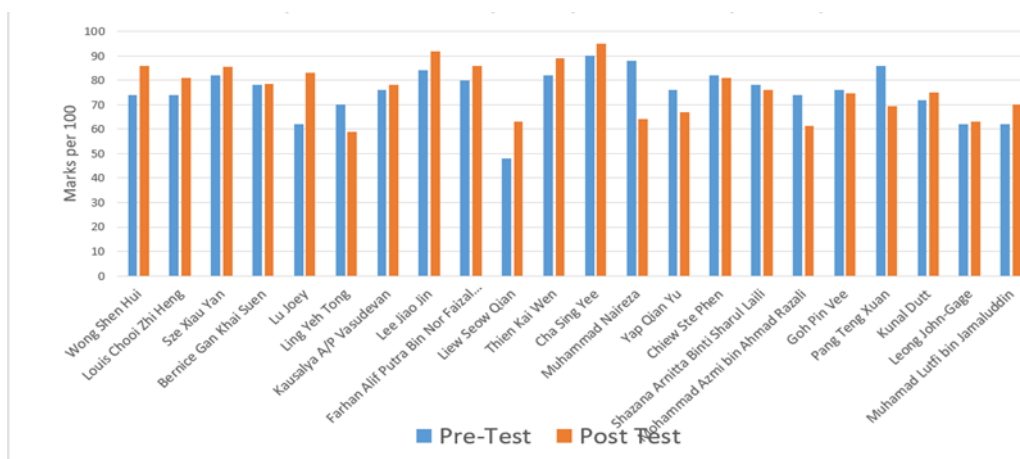


Figure 3. Comparative analysis between participants' pre-test and post-test results

Besides, participants of the Job Shadowing program performed better than non-participants across various assessment components, including test, assignment and final examination (Figure 4). This disparity of performance revealed that the experiential learning provided by Job Shadowing has a positive impact on academic outcomes.

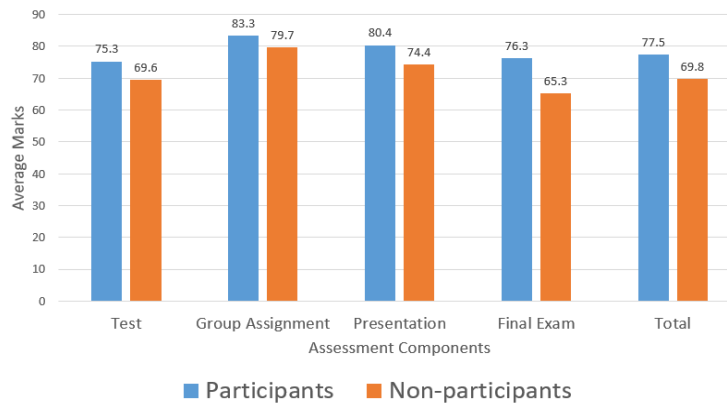


Figure 4. Comparative analysis of performance between participants and non-participants

To further validate the effectiveness of the Job Shadowing program, Independent Samples T-test was run using SPSS version 26. The results are presented in Table 1 and Table 2.

Table 1. Mean comparison between participants and non-participants

Category		N	Mean	Std. Deviation	Std. Error Mean
Test	Job Shadow	22	75.27	9.905	2.112
	Non-Job Shadow	26	69.08	10.028	1.967
Group Assignment	Job Shadow	22	83.27	5.338	1.138
	Non-Job Shadow	26	80.12	7.855	1.541
Presentation	Job Shadow	22	80.41	4.982	1.062
	Non-Job Shadow	26	74.19	5.470	1.073
Final Exam	Job Shadow	22	76.25	10.529	2.245
	Non-Job Shadow	26	65.27	18.701	3.668
Total	Job Shadow	22	77.50	6.508	1.388
	Non-Job Shadow	26	69.85	11.337	2.223

Table 2. Result of Independent Sample Test

Test		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Test	Equal variances assumed	0.061	0.807	2.145	46.000	0.037	6.196	2.889	0.381	12.010
	Equal variances not assumed			2.147	44.870	0.037	6.196	2.886	0.383	12.008
Group Assignment	Equal variances assumed	7.887	0.007	1.598	46.000	0.117	3.157	1.976	-0.821	7.135
	Equal variances not assumed			1.648	44.097	0.106	3.157	1.915	-0.703	7.017
Presentation	Equal variances assumed	0.037	0.847	4.085	46.000	0.000	6.217	1.522	3.154	9.280
	Equal variances not assumed			4.118	45.726	0.000	6.217	1.510	3.177	9.256
Final Exam	Equal variances assumed	5.227	0.027	2.443	46.000	0.018	10.981	4.494	1.935	20.027
	Equal variances not assumed			2.554	40.476	0.015	10.981	4.300	2.293	19.668
Total	Equal variances assumed	4.183	0.047	2.798	46.000	0.007	7.654	2.736	2.147	13.161
	Equal variances not assumed			2.920	40.883	0.006	7.654	2.621	2.360	12.947

For Test component, the average score for participants was 75.27, while non-participants had a mean score of 69.08. This indicates that participants performed better on average. Furthermore, the t-test result revealed that the p-value for the comparison was 0.037. Since this is less than the significance threshold of 0.05, the difference in test scores between participants and non-participants is statistically significant. However, since this is a pre-test, the difference suggests that participants might have been academically stronger or have already started with slightly better preparedness or understanding. This could be due to

various reasons such as better prior knowledge, more engagement, or other pre-existing factors unrelated to the Job Shadowing program itself.

For Group Assignment, participants scored an average of 83.27, compared to 80.12 for non-participants. This suggests that participants performed slightly better in group assignments. However, the p-value was 0.117, which is greater than 0.05. Thus, the difference in group assignment scores between the two groups is not statistically significant. For Presentation, participants achieved a significantly higher average score of 80.41, while non-participants scored 74.19. Furthermore, the p-value was 0.000, which is far below the 0.05 threshold, indicating that the difference in presentation scores is highly statistically significant.

For Final Exam, participants had an average final exam score of 76.25, compared to 65.27 for non-participants. The p-value was 0.015, which is less than 0.05. This indicates a statistically significant difference in final exam scores between participants and non-participants. Since the scores represent the post-test measurement, this suggests that the participants of the Job Shadowing program benefited from the experience and possibly integrated the practical skills and knowledge into their academic learning, leading to better final exam performance.

For Total Score, the average total score for participants was 77.50, while non-participants scored an average of 69.85. The p-value was 0.006, which is less than 0.05, indicating that the difference in total scores between the two groups is statistically significant.

Additionally, student feedback analysis (Figure 5) showed that more than 50% of participants acknowledged that the Job Shadowing program is beneficial for their learning, agreeing that sessions with managerial personnel helped them to understand the subject better. The program successfully engages students and enhances their learning experience in management subjects. The positive response underscores the program's effectiveness in providing practical, hands-on experience that complements academic learning.

Received: 09 August 2024, Accepted: 15 October 2024, Published: 20 December 2024
<https://doi.org/10.17576/ajtlhe.1602.2024.05>

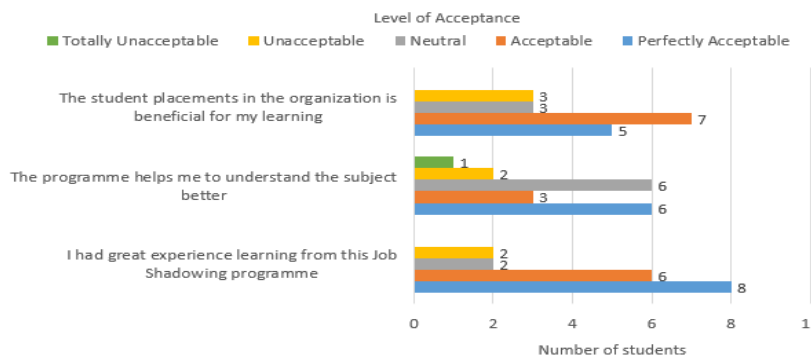


Figure 5. Level of acceptance of learning experience among participants

In Figure 6, it showed that 67% of students reported that the corporate’s involvement in Job Shadowing program has helped them in gaining real-world experience. They indicated that assignments given by the managerial personnel helped in developing these skills. Reflecting the students’ positive experience, 61% of students stated that their experience with Job Shadowing program will help them with their future employment (Figure 7) and they would recommend the Job Shadowing program to their peers (Figure 8). This high level of endorsement reflects the overall satisfaction with the program and its perceived value in enhancing their educational and professional development. Overall, the majority of students found the learning experience from Job Shadowing to be highly acceptable, with many rating their placements as beneficial for understanding the subject better. This positive feedback indicates that the program significantly contributes to students' learning by bridging the gap between theory and practice. Besides student’s perspectives, employers also provided favorable feedback for the majority of students based on their performance in assigned projects. This external validation from industry professionals reinforces the program's credibility and its success in preparing students for real-world challenges.

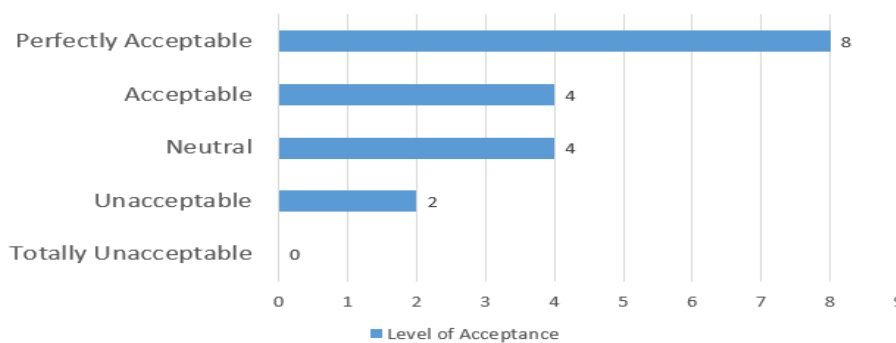


Figure 6. Level of acceptance of corporate’s involvement in helping students to gain real-world experience

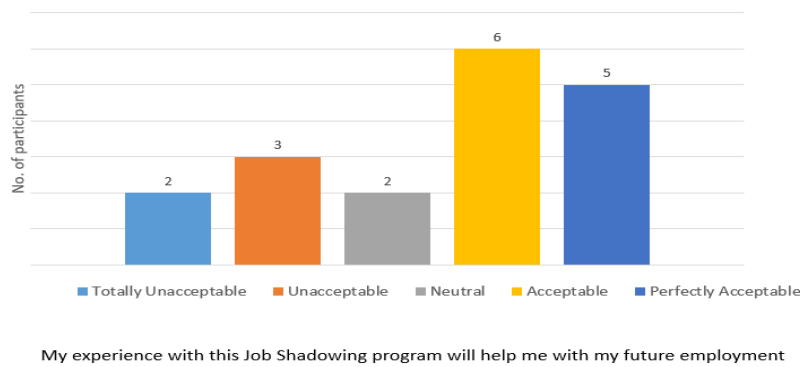


Figure 7. Experience with Job Shadowing will help students in future employment

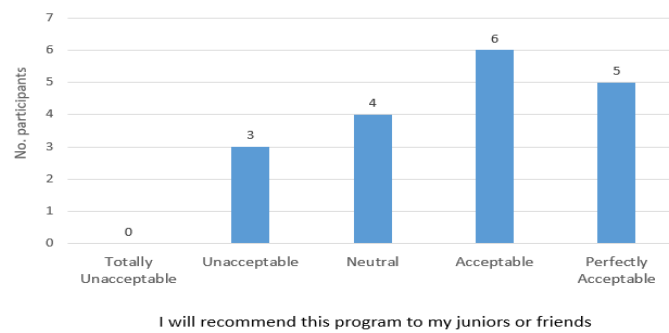


Figure 8. Recommendation to peers

Overall, the comparative analysis between pre-test and post-test results showed significant improvement, with 64% of participants performing better after the Job Shadowing program, highlighting its effectiveness in enhancing knowledge and skills through experiential learning. Participants consistently outperformed non-participants across various assessments, including tests, presentations, and final exams, with statistically significant differences confirmed by Independent Samples T-tests, except for the group assignment. Furthermore, participants of Job Shadowing show a slight improvement from the pre-test to the post-test, suggesting that their learning trajectory has remained stable, with possibly a modest improvement due to additional instruction and practical, real-world experience. This practical exposure could have helped them in better understanding the course material, improving retention, and fostering deeper learning. In contrast, non-participants showed a decline from the pre-test to the final exam, possibly due to difficulties in contextualizing or applying theoretical concepts without the benefit of real-world experience especially when faced with more complex problems on the final exam. Also, both student and employer feedback affirmed the program's success in bridging academic learning with practical skills, enhancing educational and professional outcomes.

4.0 CONCLUSION

Overall, the current study aims to assess the effectiveness of integrating the Job Shadowing program into business management education. The findings demonstrate that the Job Shadowing program is effective in enhancing the educational experience and professional readiness of business management students. Nevertheless, it is important to account for the possibility that participants of the Job Shadowing program may have had an advantage from the start, making it necessary to account for this in future study designs. Ideally, a matched group design could be used, as the random assignment of sample to both experimental and control was implemented in the current study. A matched group design can be done where students with similar pre-test scores are matched into the experimental and control groups, helping to isolate the impact of the intervention. Controlling for potential confounding factors like prior academic performance, motivation levels, and student engagement is also necessary for more accurate assessments. Also, a longitudinal study with data collected each semester in the Principles of Management module would be ideally beneficial, as it would help to increase the sample size. A larger sample size would facilitate a more robust statistical analysis, allowing for the testing of correlations between various variables, such as students' perceptions of future job duties and responsibilities, job motivation, job recognition, and other metrics necessary to measure the program's effectiveness.

In conclusion, the Job Shadowing program not only fosters a deeper understanding of management principles but also provides valuable networking opportunities and practical experience, making it a crucial component of effective business management education. Given the positive outcomes observed, it is recommended that educational institutions consider expanding the Job Shadowing program and similar experiential learning initiatives within business management curricula. Moreover, these programs can be applied to other disciplines such as engineering, healthcare, and the arts, providing students with hands-on experiences relevant to their fields of study. Further research should also explore the long-term impacts of such programs on career success and professional development, providing a comprehensive understanding of their benefits across various industries. By continually adapting and enhancing these programs, educational institutions can better prepare students to meet the evolving demands of the modern workplace in diverse fields of expertise.

5.0 ACKNOWLEDGEMENTS

We are grateful to the students and professionals who participated in the Job Shadowing program, providing essential data and experiences that enriched our study. Special thanks to School of Business, University of Wollongong Malaysia for their unwavering support, which made this research possible.

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