2021

Contributions of Guest Speakers to Online Delivery of IT Program

Sameera Mubarak
University of South Australia, sameera.mubarak@unisa.edu.au

Mubarak Rahamathulla
University of Western Australia, mubarak.rahamathulla@uwa.edu.au

Santoso Wibowo
CQUniversity, s.wibowo1@cqu.edu.au

Rongbin Yang
Kaplan Business School Adelaide, Australia, robin.yang@kbs.edu.au

Follow this and additional works at: https://aisel.aisnet.org/acis2021

Contributions of Guest Speakers to Online Delivery of IT Program

Research-in-progress

Sameera Mubarak
UniSA STEM
University of South Australia
Adelaide, Australia
Email: sameera.mubarak@unisa.edu.au

Mubarak Rahamathulla
School of Applied Health, Social Work
University of Western Australia
Perth, Australia
Email: Mubarak.rahamathulla@uwa.edu.au

Santoso Wibowo
School of Engineering & Technology
CQUniversity
Melbourne, Australia
Email: s.wibowo1@cqu.edu.au

Rongbin Yang
Kaplan Business School
Adelaide, Australia
Email: robin.yang@kbs.edu.au

Abstract

This paper aims to assess the benefits of inviting guest speakers for both IT undergraduate and postgraduate students in the online delivery of IT programs. A relevance and usefulness discourse framework is introduced to better understand the type of guest speakers that university academics should invite to enhance IT educational experience. This study will be conducted using a quantitative study based on an online survey to understand the students' experiences, expectations and benefits of guest speakers in IT degrees which could give some interesting insights. This study will be performed before the course and then again after the speaker, to see how students now viewed what they learned in the course. The study findings are expected to provide useful suggestions for IT academics to maximise the guest speakers' presentations with online delivery and achieving the intended learning outcomes.

Keywords Online delivery, guest speakers, IT programs, educational experience, learning outcomes.

1 Introduction

Lectures, seminars and workshops are different modes of learning platforms to deliver the course content in higher education. Meanwhile, Gauci et al. (2009) point out that learning through experiences and reflections enhances student learning. The guest lecture is one such experience which enhances student learning to a greater extent. Inviting guest speakers to university teaching is not a new concept (Merle and Craig 2017). This is because the invited speaker often brings new knowledge and rich educational experience to the class. Most often, guest speakers have several years of experiences in the industry and possess expertise in specific role/roles. For the guest speakers, it is an excellent opportunity to reflect and share the knowledge with the undergraduate and postgraduate students. The students, on the other hand, benefits by having the first-hand experience listening and interacting with the experts in the field (Riebe et al. 2013). Usually, the guest speakers are conducted via face to face to mode; however, due to the impact of COVID-19, all the lectures were converted to online mode. Hence, the guest speakers have to conduct their presentation online.

Despite the aforementioned general evidence, not all guest speakers are beneficial (Li and Guo 2015). As noted by McCleary and Weaver (2009), the successful integration of guest speakers demands more than a mere invitation. University lecturers must instead think of guest speakers as actors contributing to the completion of learning objectives. Previous research has shown guest speakers enhance student learning when they reinforce course content through unique presentation styles and specific examples (Eveleth and Baker-Eveleth 2009; Merle and Craig 2017).

Based on the lack of empirical evidence guiding how to best use guest speakers in an IT curriculum, the following question drives this research: *How can university academics ensure ideal conditions are established for students to benefit from guest speakers with online delivery?* A framework will be presented to better understand the type of guest speakers that university academics should invite to enhance IT educational experiences.

This paper summarises the experiences of four guest speaker sessions to IT undergraduate and postgraduate programs during COVID-19 at an Australian University. The discussion presents benefits and challenges of guest speakers and then leads to further research ideas in this area.

2 Literature Review

The Internet-based online learning has brought a revolution to the higher education sector in the areas of teaching, learning, and research areas (Wibowo et al. 2016; Lee et al. 2018). The benefits of online learning are many folded such as flexible learning, higher academic achievement and efficiency ((Dalakas 2016). According to Dumford and Miller (2018), apart from many benefits of online learning, there are also chances of diminished collaborative learning or isolated learning that might hinder the objectives of learning. Hence online teaching instructors have to design various methods to overcome these drawbacks by introducing new methods of collaboration to remove monotonous environment and one such method could be to introduce different guest lectures from industry backgrounds. There is not much literature available using guest lectures in an online teaching environment. Thus, this study will gather the benefits of guest lectures in online teaching.

Inviting guest speakers or industry speakers is not a new concept. Based on this concept, there are research articles available in the literature (Barraket 2005; Costello 2012; Fallon et al. 2013). According to Kamoun and Selim (2007), guest speakers can provide a means to supplement teaching to expose students to recent trends. The benefits of the guest speakers have been well documented as (a) an effective teaching strategy, (b) the promotion of a student to expertise interaction and (c) the elevation of active learning (Barraket 2005; Fallon et al. 2013).

There is a debate over the effectiveness of traditional instructive approach to constructivist approach where students take an active part in learning (Algie and Rowland 2007; Cochrane et al. 2013). The guest speakers usually provide students with an opportunity to obtain the knowledge and skills in the real world and allowthe opportunity to ask critical questions in a limited time (Lee et al. 2018). In the IT program, guest speakers aid students in finding new job opportunities and career path that develops a positive attitude towards guest speakers by attending in the large numbers (Kamoun and Selim 2007). Dalakas (2016) encourages students to ask questions to guest speakers, and the questions are a graded component.The pedagogical strategy of using guest speakers in university enhances experiential learning (Dumford and Miller 2016). In other words, this method of teaching provides the students with an understanding of professional activity by providing a 'real-life picture' of theory (Algie and Rowland 2007). Karns (2005) believes that students' perception of learning through guest speakers is considered to be the most enjoyable and stimulating than the dull and lethargic environment. According to Barraket

(2005), recognising that theory is of value only if it can be applied, academics must envision the world beyond the classroom and prepare students to complete in a market-driven world. Corman et al. (2005) point out the positive outcome of experiential and active learning where students had to work with a local business directly. Algie and Rowland (2007) discuss several non-conventional pedagogical strategies where executives from different companies visit several times during theteaching period bringing real-life examples, or problems for teams of students to try to solve.

It is noted that the guest speakers are also beneficial to universities and faculty to develop long term ties that can lead to research collaborations. On some occasions, industry experts input in evaluating course content and assessments help to a greater extent to improve the quality of the course and program. This process endorses the industry need and balance between theory and practice during the learning stage. The first-hand knowledge students and the host universities gain from the guest speaker is valuable by providing up-to-date information on what companies are looking for from graduates (Algie and Rowland 2007). Guest lecturing, both speaker-centred and student-centred help in substantiating the application of theories in real-world situations (Robinson and Cook 2018). Furthermore, it keeps students interested and engaged in the course (Gauci et al. 2009; Li and Guo 2015).

3   Case Examples

During the COVID-19, there was a sudden shift from face to face to online mode. However, the main intention was to promote better student learning in all possible manners. Hence the following four examples were chosen to discuss the extended value guest speakers bring to both undergraduate and postgraduate IT courses during the online delivery mode in an Australian university.

These guest speakers were invited to do their presentation in management related courses in term 2 2020. The postgraduate program titled Master of IT consists of different specialisations. The average number of enrolments is around 150 students. The course is Business Practices for IT Professional, which include a range of topics focusing on soft skills that students should know when they venture into an IT career in any business settings. The two guests presented on risk management and business finance.

Case 1: The guest speaker was a consultant in one of the multinational companies with more than 25 years of experience in different roles ranging from software tester to business continuity consultant. The course coordinator contacted the speaker well in advance, providing the course details, and the other topics completed so far to form a continuity and connections to previous topics studied. The speaker had nearly six weeks to prepare the presentation. The guest speaker was publicised to the students in the discussion forum and through emails.

The guest speaker titled his presentation 'Risk Management in Business'. At the beginning of the presentation, the guest speaker provided his brief biodata and the various career path he took. That was very interesting to the students to get exposure to many different pathways, roles and responsibilities for IT professionals to pursue their career. The duration of the lecture was around 70 minutes, where he provided several examples of risk scenarios and management through specific industry standards and frameworks. At the end of the lecture, students gained the knowledge to write a risk management plan. The presentation was followed by a question and answer session. During this time, students clarified the qualitative and quantitative rating of risks and calculation of risk factors. Also, there were questions to know future employment possibilities and any certifications to complete. The guest speaker provided his details for further communications. To understand the knowledge gained from the guest speaker, there was an assessment of the risk management to complete within a week.

Case 2: The second guest speaker for this course was on Business Finance for IT Professionals. The topic of the presentation is the basics of finance concepts for IT students. The guest speaker is in the role of the senior analyst in the audit and assurance department of a multinational company. The speaker is a young professional who was an added advantage because students could relate to her very well. The topic and date were communicated to the guest speaker while designing the course to confirm the availability on the specific time.

The guest speaker introduced her roles and responsibilities and started the lecture. The main topics covered are business structures, management accounting and financial accounting, using financial information for decision making, frauds and risks. The guest speaker designed several short, interactive questions which maintained the student engagement throughout the lecture. In the end, there were several questions from the students regarding interpreting financial statements. There were also comments from the students about the usefulness of this topic because understanding accounting

terminologies are useful for IT professionals to communicate the accounting and finance colleagues. That week's assessment contained questions on the business finance topic so that students recapture they studied.

Case 3: The third guest speaker is for an undergraduate IT program, titled Bachelors of IT with different specialisation. The course 'Information Security Management' is a core course for some specialties. There were 90 students in the class.

The course has a range of topics on information security management. The course coordinator decided to use two guest speakers for IT auditing and business continuity topics. During the course preparation stage, the course coordinator communicated to the guest speaker, whois a principal IT auditor in the state government. The role of the IT auditing with information security seemed significant. The guest speaker with more than 30 years of experience in the accounting and auditing field was passionate to share his knowledge and expertise with young IT professionals. The lecture date was communicated to students in multiple ways, like email and course website announcements. The guest speaker is an alumnus of the same university, and thus he could easily share his student experiences. Then, he described his career changes from accounting to IT and cybersecurity field.

The presentation content included: what is IT auditing, the importance, the purpose of auditing, and IT auditing stages in brief. The speaker went on for 60 minutes, leaving the questions to the end. The students had questions about the differences between auditing for private and public organisations, challenges IT auditors and experience. Since the cohort is towards the end of their undergraduate study, they wanted to know the entry-level jobs, job prospects and any required qualifications/certifications. The connect of the presentation was assessed in the tutorials and some questions in the final examination.

Case 4: Another guest speaker for the information security management course was on business continuity planning (BCP).

The guest speaker is a BCP consultant in a multinational company with nearly 20 years of experience. The date was communicated in the early stages of the course preparation. The guest speaker wanted to discuss BCP topic immediately after the risk management topics so that there would be a continuation in the discussion.

The guest speaker had come to the same course in the previous offerings, hence was familiar with the settings and the cohort. At the beginning of his presentation, he introduced his career shifts from software developer to BCP consultant. This was interesting for the students to know the range of jobs they can pursue after their graduation. The presentation was for about 90 minutes. The presentation was interesting enough to students, and they were keen to continue sacrificing the 10 minutes of break time. In the end, there were question and answer sessions for 20 minutes. The questions included a range of questions: What is your role and responsibility as a BCP consultant? What are the challenges you face in the formulation and implementation of BCP? Finally, what certifications and qualifications required to get to this role.

The presentation content was part of the significant assignment where students have to write a plan on BCP and calculated Business Impact Analysis of the risk factors they already listed for a specific organisation.

At the end of the guest speakers' presentation, the students were asked to provide comments on their experience via course evaluations. Some of their comments are provided below:

One respondent pointed out the need to obtain clarification on what the industry requires on professional practice:

Industry speakers were friendly and approachable to clarify my doubts on certification.

Two students commented on the importance of how the guest speakers can connect case-based learning connects to real-world examples and how such cases prepare the students for professional practice:

The guest speaker contents were directly linked with the assessments, and it made us connect theory and practice very well.

The learning objectives of the course was to get input from the industry speakers and it was successfully implemented.

When asked about real work-related situations, one respondent commented on the usefulness of understanding the real work situation:

Guest speakers were interesting and helpful for international students to understand Australian business settings.

Besides, several students responded positively concerning their understanding of the future working life in the IT industry:

The career path that the guest speakers explained were interesting to explore different avenues in the IT industry.

Guest speakers shared the job opportunities for graduate entry-level in their organisation that enabled many students to apply for the jobs.

4   Discussion

Based on the students' comments from four case examples, it can be observed that students benefit from guest speakers even during the online delivery method. The current study is in line with the existing literature on emphasising the multiple benefits of guest lectures, such as positive influence on learning environment (Metrejean et al. 2002) and bridging the academic-practitioner gaps (Von Wielligh and Butler 2012). It is noted that all four speakers have brought a wealth of experiences to the class, and students perceived as a privilege to get to speak directly to the industry expert. There were several benefits observed during and after the guest speakers' presentation.

- Content and examples they provided: From the above case examples, it was observed that students were excited to hear from an expert and curious to ask many questions during and after the lecture. They provide students with alternative perspectives, opinions, and personal experiences that can reinforce the other topics that have learnt. The stories and anecdotes shared by the guest speakers brought multiple perspectives to the knowledge they gained through the course. Another important observation was the involvement of guest speakers removed the monotony of the teaching with a different style of delivery by the guest speakers. Since the guest speakers were included as part of the assessments, students were more attentive and engaged throughout the delivery. This observation is supported by the earlier findings by Robinson and Cook (2018).

- Career path each speaker experienced: The self-introduction of the guest speakers leads to several questions on the career path the different speakers followed. Most of the students benefited from knowing multiple roles present in the IT industry and reaching that through various routes. Most importantly, most students wrote the contact details of the speakers so that they can discuss them even outside the class timings. Similar viewpoint was noted by Metrejean et al. (2002).

- Clarification of skill set/qualification/certification needed: Many students were keen to know the extra qualification they needed when they graduate. The information about certification and requirements enabled them to think more about financial and time feasibility. Curiosity to know the profession with the guest lectures were also discussed by Eveleth and Baker-Eveleth (2009).

Based on these experiences of including guest speakers to an undergraduate and postgraduate course, we decided to study this area from multiple perspectives further. In planning the guest speaker experience, we believe that academics should consider the learning outcomes that this experience will deliver. Incorporating a reflective response to this experience will deepen student understanding and contribute to a meaningful experience. Therefore, this experience should be carefully incorporated in the context of the course with assigned readings before the event, an introduction to the speaker to prepare students on the expectations and a reflective engagement that could be used as one of the assignments for the course.

5   Proposed Methodology and Future Work

To further understand the benefits and real values of inviting guest speakers for both IT undergraduate and postgraduate students in the online delivery of IT programs, we have adopted the relevance and usefulness discourse framework developed by Trowler and Cooper (2002). Based on this framework, as shown in Figure 1, we want to further understand the type of guest speakers that university academics should invite to enhance students' IT educational experience. This is a research-in-progresspaper and so far, we have just received a few informal comments from the students regarding the benefits of guest speakers. Therefore, we are motivated to study in-depth every component of the relevance and usefulness discourse framework to enhance our knowledge in engaging the mostsuitable guest speaker that will make a valuable contribution to the students.

First Phase (already completed): Through this research-in-progress paper, we examine the impact of guest speakers on students in the online delivery of IT programs. The initial results motivate for further expansion of the research.
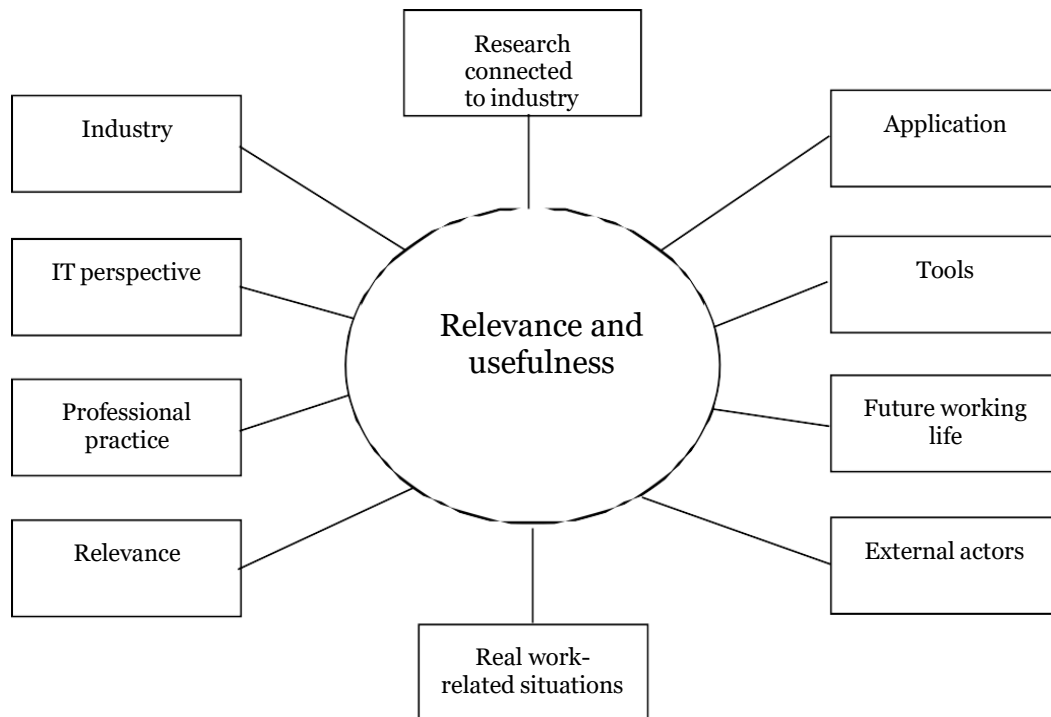

Figure 1. The relevance and usefulness discourse framework

Second Phase: A quantitative study based on an online survey will be conducted to understand the students' experiences, expectations and benefits of IT speakers in IT degrees which could give some interesting insights. This study will be performed before the course and then again after the speaker, to see how students now viewed what they learned in the course. A total of 200 students from the IT program at both undergraduate and postgraduate levels will be chosen for an online questionnaire survey to understand their experiences, expectations and benefits of guest speakers in IT degrees.

The survey questionnaire comprises of three parts. The first part includes questions on basic demographic characteristics such as student's age, gender and education background. The second part seeks responses from the students on the general topic of the talk, the perceived effectiveness of the speaker, the type of speaker, the style of presentation, the benefits of a guest speaker, the student's expectations and other questions relating to Figure 1. The final part requires students to provide suggestions at the end of the questionnaire. The findings from this survey will provide a solid criterion in selecting the right guest speakers to reap the maximum benefits to the students and the university.

6   Expected Contribution

The use of guest speakers enables the "insights from industry" essential for students to understand how the theory works in practice. For undergraduate students, this consolidates their underlying knowledge and understanding of the basic principles and concepts. For postgraduate students, it enables them to move from the basic educational goals of knowledge and understanding to the higher levels of analysis and evaluation. The findings will be comprised as suggestions to university academics on effective and ineffective practices of online guest lecturing so that students can best benefit from guest speakers with online delivery. The findings of this study will also contribute to ongoing pedagogical research on effective guest speaker approaches and techniques in delivering their presentation to IT students.

7   References

Algie, J., and Rowland, J. 2007. "A Guest Lecturing Program to Improve Students' Applied Learning," *Proceedings of the Australian and New Zealand Marketing Academy Conference*, pp. 1-6.

Barraket, J. 2005. "Teaching Research Method Using a Student-Centred Approach? Critical Reflections on Practice," *Journal of University Teaching and Learning Practice* (2)**,** pp. 3-13.

Cochrane, T., Buchem, I., Camacho, M., Cronin, C., Gordon, A., and Keegan, H. 2013. "Building Global Learning Communities," *Research in Learning Technology* (21), pp. 1-13.

Corman, L. S., Walls, S. G., and Cook, R. A. 2005. *Preparing Students for Entrepreneurship Opportunities*, USA: Fort Lewis College Publication.

Costello, J. 2012. "Perceptions of Guest Lecturers' Impact on Online Learning Communities," *Proceedings of the 8th International Conference on Networked Learning*, pp. 482-487.

Dalakas, V. 2016. "Turning Guest Speakers' Visits into Active Learning Opportunities," *Atlantic Marketing Journal* (5:2), pp. 7-14.

Dumford, A. D., and Miller, A. L. 2018. "Online Learning in Higher Education: Exploring Advantages and Disadvantages for Engagement," *Journal of Computing in Higher Education*(30), pp. 452-465.

Eveleth, D. M., and Baker-Eveleth. L. J. 2009. "Student Dialogue with Online Guest Speakers," *Decision Sciences Journal of Innovative Education* (7:1), pp. 417-421.

Fallon, E., Walsh, S., and Prendergast, T. 2013. "An Activity-Based Approach to the Learning and Teaching of Research Methods: Measuring Student Engagement and Learning," *Irish Journal of Academic Practice* (2)**,** pp. 21-29.

Gauci, S. A., Dantas, A. M., Williams, D. A., and Kemm, R. E. 2009. "Promoting Student-Centered Active Learning in Lectures with A Personal Response System,"*Advances in Physiology Education* (33)**,** pp. 60-71.

Kamoun, F., and Selim, S. 2007. "A Framework Towards Assessing the Merits of Inviting IT Professionals to the Classroom," *Journal of Information Technology Education: Research* (6), pp. 81-103.

Karns, G. L. 2005. "An Update of Marketing Student Perceptions of Learning Activities: Structure, Preferences, and Effectiveness," *Journal of Marketing Education* (27), pp. 163-171.

Lee, S. J., Lee, H., and Kim, T. T. 2018. "A Study on the Instructor Role in Dealing with Mixed Contents: How It Affects Learner Satisfaction and Retention in e-Learning," *Sustainability* (10), 850.

Li, L., and Guo, R. 2015. "A Student-Centered Guest Lecturing: A Constructivism Approach to Promote Student Engagement," *Journal of Instructional Pedagogies* (15), pp. 1-7.

McCleary, K. W., and Weaver, P. A. 2009. "The Effective Use of Guest Speakers in the Hospitality and Tourism Curriculum," *Journal of Teaching in Travel & Tourism* (8:4), pp. 401-414.

Merle, P. F., and Craig, C. 2017. "Be My Guest: A Survey of Mass Communication Students' Perception of Guest Speakers," *College Teaching* (65:2), pp.41-49.

Metrejean, C., Pittman, J., and Zarzeski, M. T. 2002. "Guest Speakers: Reflections on the Role of Accountants in the Classroom," *Accounting Education* (11), pp. 347-364.

Riebe, L., Sibson, R., Roepen, D., and Meakins, K. 2013. "Impact of Industry Guest Speakers on Business Students' Perceptions of Employability Skills Development," *Industry and Higher Education* (27:1), pp. 55-66.

Robinson, A., and Cook, D. 2018. "Stickiness": Gauging Students' Attention to Online Learning Activities," *Information and Learning Science* (119), pp. 460-468.

Trowler, P., and Cooper, A. 2002. "Teaching and Learning Regimes: Implicit Theories and Recurrent Practices in the Enhancement of Teaching and Learning Through Educational Development Programmes," *Higher Education Research & Development* (21:3), pp. 221-240.

Von Wieeligh, S., and Butler, R. 2012. "Using Guest Lecturers to Address the Gap Between Theory and Practice in Auditing Studies at a South African University - A Case Study," *Southern African Journal of Accountability and Auditing Research* (13), pp. 47-56.

Wibowo, S., Grandhi, S., Chugh, R., and Sawir, E. 2016. "A Pilot Study of an Electronic Exam System at an Australian University," *Journal of Educational Technology Systems*, (45:1), pp. 5-33.