

INTERNATIONAL STUDY TOURS: A KEY TO 21ST CENTURY ACADEMIC AND INDUSTRY EXCHANGES

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ABSTRACT

This paper is based on the retrospective reviews of the Information Systems study group who went on the international study tour to India to learn, network and collaborate with academics, students and industry professionals overseas. The paper addresses concerns of local Australian Science, Technology, Engineering and Mathematics recruiters and identifies how a well-planned educational study tours could in the future help graduates meet industry and recruiters' demands. It furthermore identifies that 21st century international business ventures and global partnerships require future graduates to not only be skillful in their professions but also be global citizens, know and understand different cultures, easily adapt to new environments, skillfully negotiate business deals, mindfully communicate and swiftly learn to apply and follow local rules, customs and regulations.

KEYWORDS

Educational study tours, international partnerships, collaborations with businesses, new learning models

1. INTRODUCTION

Over the last century a main disruptor of the educational content delivery was "the Internet". It revolutionized and changed content storage, information searching, data dissemination and data analysis. Years ago primary sources of data gathering, learning and studying were the physical libraries and lecture halls. Currently, in addition to the formal knowledge delivery, information is globally available and searchable via the online databases and is available in multiple formats such as video, print and simulations. Information is passed instantaneously, just in time. This trend has opened new opportunities for global education and collaborations where data is available on a demand, just in time. Aggregation of such data has given a rise to electronic delivery platforms and online courses.

Therefore, classroom style of teaching and lecturing these days is not equivalent to that of centuries ago. First changes have been seen with the uses of computers and PowerPoint slides. In more recent times there has been a trend to utilize online sources, make content available 24/7 and encourage instantaneous feedback and even run classes and degrees online.

It is important to take into the account that both face to face and electronic exchanges have their advantages which are not mutually exclusive. It is apparent that students of the 21st century are globally connected and they search for data via applications such as YouTube, network via Facebook and look for jobs via LinkedIn. Virtually, young generations are connected and easily exchange data via a cloud which gives rise to international exchanges, collaborations, partnerships as well as the international study and work opportunities. However, to successfully work, study and network internationally, skills of virtual world networking alone are not sufficient. Therefore, young generations need to ensure they have skills required not only to establish the virtual international relationships but also have skills that are required to apply for jobs in a different country, attend business meetings internationally or engaging in collaborative business venture with both local and international partners.

This research identifies that based on the current data available, recruiters often assess graduates based on both soft and hard skills criteria. In particular, it is noted that current graduates require improvements and the attention to interpersonal and communication skills, cultural alignment/values fit, emotional intelligence (including self-awareness, self-regulation, self-motivation), reasoning and problem-solving skills first,

followed by academic results, work experience and finally technical skills (GCA, 2016). Furthermore, past studies also demonstrate that the future of the employment for technology based employees is going to require skills such as relationship management, customer service, strategic planning and contract negotiating (Australia's Digital Pulse, 2016). Dishman 2016, identifies that critical thinking and problem solving, attention to detail, communication skills written and spoken as well as interpersonal skills were found to be requiring improvements in many of the current graduates. Office of Chief Scientists, 2013 identifies the importance of active learning, critical thinking, complex and creative problem solving as key drivers for the future STEM (Science, Technology and Engineering) graduates and therefore require more attention. The main reason for this is that STEM careers are becoming global, multidisciplinary and require knowledge and skills in multiple domains. Furthermore, many STEM roles and tasks large organisations these days often outsource (Woods, 2007) which further supports a need for the graduates to have knowledge about the international engagements and collaborations.

This paper therefore addresses the gaps identified by the STEM recruiters and based on the retrospective analysis of the international study tour conducted by both students and staff, identifies how in the future current STEM graduates could learn skills required for the successful international engagements. Furthermore, it identifies how in the future international business – academic exchanges could be incorporated to both face to face and even online delivery modes, so that students can learn how to network, work and collaborate in the international settings.

2. REFLECTIVE REVIEWS: EXPERIENCES AND LESSONS LEARNED

This study therefore, addresses and via reflective reviews identifies the extent to which engagements with the industry representatives and the peers at the overseas universities could help assist delivery of cutting edge knowledge and help students gain a multicultural understanding of work and study internationally that in the future could allow students to gain a cutting edge advantage in their chosen careers.

A successful education in today's networked environments encompasses both electronic and face to face exchanges and collaborations. They are both seen as essential, when looking for jobs, conducting business meetings or establishing new ventures. Taking this into account, this paper through a retrospective reviews highlights the study tour experiences and opportunities. This study is based on the recount of six students and one staff member.

A group of final year Information Systems students and two staff members undertook a twelve day study tour to India, during which students had the opportunity to meet and network with world leaders in the fields that are closely aligned to students' majors and sub-majors, such as mobile computing, health informatics, networking and social analytics. During the tour, students also had the opportunity to hear about the cutting edge information systems innovations in a wide range of industries such as telecommunications, information technology operations, automobile industry, pharmaceutical production and food chain supply operations.

Being a part of the tour, the study group also visited three universities where students had the opportunity to meet, network, exchange experiences and collaborate with peers in India. Activities undertaken assisted students to establish new contacts, share skills and learn about study and business principles in different countries. In addition, local visits and hands on industry experiences during the tour were closely linked with the Indian local culture, international business ethics, customs and habits which further enhanced students' experiences and gave them a real feel for what it was like to work and study in India.

Experiences and knowledge gained as a part of the study tour were categorized. Furthermore, recounts were grouped and main lessons learned and experiences gained described. In addition, each recount recollection identifies how experiences like these could in future be incorporated into teaching practices, so that graduates' skills are enhanced and graduates could then be better equipped for the international collaborative partnerships and exchanges.

Based on the analyzed data and groupings of the students and staff recollections it was determined that international study tours like the one conducted can provide skills and give students the opportunity to:

- *Learn about the international engagements while establishing industry and peer networks*
- *Learn about the global markets and the importance of dedication to learn and excel*
- *Learn how culture, customs and specific local regulations may impact system implementations in multinational organizations*
- *Learn about the different cultures and their business trends through both face to face and online exchanges*

- **Lean about the international engagements while establishing industry and peer networks**

Having the opportunity to network with the industry leaders and learn about the skills that are essential for the success in the global markets in India gave the study tour group a chance to learn about work and commitments in an international business. The study tour team also learned about the information systems and how they are being utilized day to day by world class companies to meet real life business operations in various countries. Furthermore, the study tour group had the opportunity to learn about the global operations of multinational cooperation as well as the importance for young employees to be proactive, engage and be ready to tackle complex problems as well as proactively seek new leadership initiatives. Literature also supports that it is essential for the current graduates to engage in complex problem solving and analytical thinking, as they are a key for the future innovations and business operations (Dishman, 2016, Chief Scientists 2013).

The study group, while overseas also had the opportunity to network with local students. This gave them an insight into what it means to study in a different country, what expectations students are being faced with based on the local trends and also through comparisons identify trends that are commonly shared between both Australia and India. It was also apparent that it was not just the language that was different, but also local habits, culture and customs which need to be understood as they often guide the principles of studying and learning, class participation as well as impact traditions of business meetings and gatherings. For the study tour students, having an understanding of the local expectations and traditions allowed the group to easier understand commonalities and differences as well as prepare for the future interaction. For example, the study tour students are now aware that study content covered in the area of Information System in India and Australia at the universities is equivalent. However, in Australia students are required to plan their study journey themselves, attend classes and seek help when required, while in India in addition to the set classes, there are often also guided practice lessons that allow for the work to be monitored and checked continuously to ensure students are gaining sufficient practice and study time. In business settings however, students have learned that young employees in both India and Australia are equally required to be proactive, engage in new opportunities and actively seek new challenges themselves.

Consequently, the study tour students have learned that once they are ready to commence working in a global company they can be expected to travel overseas and collaborate with other companies. Knowing for example the Indian market, gives the study tour students a cutting edge advantage. If the study tour students were to travel to India for work in the future, they would now know local traditions, greetings and networking habits and additionally would be accustomed to warm hospitality that may often involve cultural events as a sign of a respect.

The study tour students have also had the opportunity to establish new networks and connections which have opened doors to future collaborations. This also supports the notion that cultural diversity is beneficial for inter-cultural study and work (Volet & Ang, 2012). Having the opportunity to engage in proactive interactions gave students the ability to place themselves within the overseas culture and adapt to local standards which ultimately gave them an advantage as they are now able to adapt more quickly to the new environments.

Furthermore, literature identifies that current graduates require a close fit to the 'cultural alignment'. It is worth noting that 34.3% of companies identify this criteria as one of the most important when selecting suitable employees (GCA, 2016). Therefore, exposure to the opportunities that allow students to be involved within different cultures and network with peers, academics and employees allows them to quickly adapt to the new environment. The study tour experience allowed students to expand networks, learn how to form them and identify future potentials.

- **Learn about the global markets and the importance of dedication to learn and excel**

The study tour experience gave the study tour group the opportunity to learn the importance of showing passion and dedication for learning. It was beneficial to hear some world leaders reinforce how essential it is for young professionals to have a will to make a difference and demonstrate that they are eager to engage and learn.

International engagements with multinational organizations demonstrated that job markets are incredibly diverse in STEM fields and therefore many jobs require holistic and multidisciplinary skills in addition to well-grounded technical knowledge (Australia's Digital Pulse, 2016). Consequently, organizations recruit based on more than just technical capacity to complete a job, but also for future employee opportunities where they can grow and further develop with the organization and therefore successfully meet requirements

of the specialized industry roles. This means that having a dedication to learn new skills, and going beyond what is mandatory is vital and important when producing better outcomes for all involved ("Lifelong learning: Continuous training and development is the key to business success", 2013). This was also identified by the world leaders who encouraged young employees to seek opportunities to improve themselves and gain training.

Moreover, this is closely aligned to the notion that one of the largest factors towards career-success is motivation (Ng & Feldman, 2014), and that having the opportunity to meet global market leaders, see how they engage in their roles, and be given the opportunity to learn about the possibilities available to someone just entering the global marketplace, was important to developing the inspiration to engage actively with the future job roles and therefore the organizations.

These days many skilled individuals work with colleagues from many different countries and backgrounds. Therefore it is vital to develop excellent cross cultural communication and interpersonal skills, so that future generations of employees are able to engage effectively (Zaugg & Davies, 2013). Communication is also seen as one of the most sought after skills in current graduates (GCA, 2015).

Over the course of the study tour, the group learned about the invaluable opportunities international engagements and internships can offer to students not only to support individual's personal developments but also to assist in improving cross border communication skills, nurture adaptability skills, and train graduates to meet commitments and duties in a reliable manner and provide student and future graduates with an opportunities to develop professionally utilizing the skills they have learnt in both class environments and within the practical and real life work setting (Sykes, 2009).

- Learn how culture, customs and specific local regulations may impact system implementations in multinational organizations

STEM careers are extensively becoming global. Many jobs are being integrated with industries other than purely science, technology, engineering and mathematics. Fields such as service, finance, administration, transport and sales are all requiring STEM knowledge and skills (Australia's Digital Pulse, 2016). Furthermore, large technology based organisations often outsource parts of their operations and therefore may often have supply chains that connect international distributors and suppliers. These connections encourage business exchanges across borders. Considering this, it is paramount for current students to learn about different countries and gain insights about the way work is performed across the globe. In particular, some technology operations may often be guided by local specifications and work parameters based on the region's specifications, laws and customs.

For example, the study tour students had the opportunity to visit large corporations in India that also operate in Australia and have realized that in different countries and regions, products may often differ, as well as the ways in which company approaches customers, and how the company approaches its marketing, delivery and even hiring. This often has impacts on company's information systems and operations which consequently need to be implemented in two countries in different ways, so they can successfully meet specific region's business outcomes and expectations.

This furthermore, strengthens the importance of understanding the drivers of a global businesses, the importance of society, lifestyles and life-goals of the individuals that are being involved in business exchanges and interactions. Therefore, it is important for future graduates to be able to understand the global ecosystem in which we live and learn about the wide scopes of international business interactions from outsourcing (Robinson, 2011) to collaborative engagements and complex multidisciplinary problem solving (Millar, 2016).

Furthermore, these multinational engagements require employees and business partners to have skills and knowledge that will enable them to easily communicate and understand each other while taking into account local customs and traditions. Moreover, there is also a need to learn how to best excel in a globally competitive market. Consequently, it is very important for the future graduates to learn and acquire leadership skills (GCA, 2016). While on the study tour, students learned from world class leaders about how crucial engagement and initiatives of young employees are and how important it is to engage in innovation and research early in their careers. They also strengthen the importance of internships. It is vital to note that study tour experience gave students the opportunity to consider wide range of the international engagements as after being exposed to work and life in a different country students are now more inclined to undertake future international engagements.

- **Learn about the different cultures and their business trends through both face to face and online exchanges**

Technology such as email, social networking, discussion boards, blogs and tools such as Skype and Zoom, help business and individuals cross geographical distances quickly. Tools such as these give opportunities to employees, business partners and students to collaborate, join projects and work together. However, what technology currently lacks is the ability to convey culture, habits, trends and environmental stimuli such as the context of air temperature, local customs, greetings particularly those exchanges when visitors come for the first time, welcomes and gift exchanges, participation in local customs as well as the immersion and acceptance of local rules, standards and regulations cannot be transferred electronically via social media tools and technologies.

These limitations can only be overcome if individuals are given the opportunity to travel and fully immerse themselves into the local setting. The study tour group had the opportunity to live in India, visit three well reputed universities, network with local students, engage in the activities that students in India would engage in as well as visit businesses, meet cutting edge business leaders and learn about the future opportunities. Furthermore, the study tour students learned first-hand about the business operations and how important it is for even the junior employees to follow their dreams, express their thoughts and engage in new innovative projects. The experience allowed study group to learn and apply these principles once they are to start working in their chosen career field. Now, students have learned how important it is to meet international teams face to face, to visit and attend meetings at their business partners' or collaborator's premises and gain the opportunity to learn and apply local rules and regulations, so that when the process of decision making is reached they can act swiftly. This knowledge can consequently give them the advantage over their competition.

Social media should not however be ignored. Its use and applicability should closely be integrated with the face to face interactions. Particularly for STEM professionals it may be quite easy to adjust and adopt to using various online tools and platforms to stay in touch and conduct ongoing business meetings and discussions. Therefore, these tools should be used to maintain networks, collaborate and share data, outcomes and plans. In addition, it is important to be aware that people are social beings and that therefore interactions can be more easily maintained if participants know and understand each other's environment and have met face to face. Study tour students have now established communications with companies they have visited. Based on this in the future it is expected that for the group that went on the study tour it will now be easier to approach these and other international companies. The study tour students have also had the opportunities to establish networks with student peers in India. In the future it is expected that contacts like these may initiate future collaborations and partnerships.

Based on the experiences of the study tour group experience students have now learned that whenever international contracts are being drawn it is important to meet other teams face to face, learn, understand and appreciate different cultures as well as continue to utilize social networking tools to nurture business relationships, stay in touch and continue to work on common initiatives.

3. FUTURE TRENDS AND OPPORTUNITIES

The study tour experience gave the participants an opportunity to see and experience firsthand integrations of the concepts learned as a part of their degree and majors in the real life business environments. Students had the opportunity to not only review the theoretical concepts learned in the classrooms but also see how those concepts are on a daily basis, being applied to real life operations in the business environments. Furthermore, this opportunity allowed students to reflect on what was learned in some of the core subjects of their degrees and in their majors. By observing the real life operations it was also possible for the students to link concepts learned during the degree together and see their full potentials in action which can directly be applied to specializations students are undertaking and their career goals. As per Kolb's learning cycles (Kolb 1984) it can be demonstrated that the knowledge gained over the course of the degree is being applied to real company scenarios while observing and engaging in actions with real business managers. The study tour also allowed students to grasp concepts in real time as they had the opportunity to interact with employees of the world class organizations. They observed the information systems companies implemented and learned about specific parameters that each industry and the region needed to take into the account, so that they can meet

set business goals and deliver required outcomes. Furthermore, this experience allowed students to learn about the importance of how specific tools and technologies may need to be implemented, so that company's needs and requirements can be met and desired outcomes reliably and correctly delivered.

Therefore, it was seen that providing students with opportunities to see operations in action early on, network with peers domestically and internationally across various universities and by giving them the opportunity to visit some cutting edge organizations of a global caliber equips future graduates with skills essential for work in multinational corporations. As identified by study tour group it is very important for STEM students to be given the opportunity to speak to experts in their fields, to hear how industry sources employees globally and what opportunities are currently available, so that they can best position themselves within the globally competitive market.

It can be seen that education is changing and becoming more integrated with current jobs and industries. It is expected that components of the university education will remain formal and will be delivered via lectures, tutorials or workshops either face to face or online. Even today, in addition to formal teaching the Information Systems degree at Western Sydney University has been linked to real life projects that allow students to learn more about real life business operations. Allowing all students in the future to undertake international study tours as a part of their degrees will assist students in gaining deeper understanding. They will be able to compare local and international trends and learn about the cultures and habits companies in particular regions follow. Experiences like these will also assist future graduates and will help ensure future graduates are meeting industry expectations and are ready to engage in competitive jobs locally and internationally.

Furthermore, this experience allowed the study tour students to learn how best knowledge and skills gained in the classroom settings can be applied to real life companies, their strategies, operations and their systems deployment and management considerations both locally and internationally.

Through a study tour experience, students also gained the opportunity to learn first-hand what some large companies expect of future graduates such as how best to get ready for internships and how to navigate employment once they commence working. In addition, students also learned how crucial innovation, research and new opportunities are for large well established businesses and how closely they align to future job markets and opportunities.



Figure 1. From classrooms to global partnerships and collaborations

By undertaking the tour, students learned that future graduates currently need to be global citizens, and ready to utilize and apply knowledge learned within classroom settings to real life business operations (Figure 1). It is also essential for students to know and understand how skills gained within the classroom activities apply to jobs in the organizations both locally and internationally. Therefore, by opening doors to students and encouraging them to collaborate with companies early on in their degree both locally and internationally students will once they graduate, be able to adjust more quickly to new environments and better succeed in their chosen job.

Based on the retrospective reviews of the study tour it was identified that by encouraging students to engage in projects locally and internationally with the industry as well as network with peers domestically and overseas students will have opportunities to gain critical skills that recruiters require. For example,

students will establish interactions with organizations learn about the company's cultural values and will also learn how important it is for them to be able to understand the local company traditions and habits in order to succeed. Furthermore, working and studying overseas may often challenge individuals' emotional intelligence. By having the opportunity to learn about the self-awareness, coping and resilience strategies while still students, once the students graduate, they will be equipped with skills required to deal with the unknown and unfamiliar circumstances. Additionally, successful problem solving and smart negotiating also requires careful planning. The planning often may be shaped by different circumstances, cultures and habits that will often also shape the natures of communications and negotiations. Based on the above, it can be noted that students who undertake study tours will have key skills recruiters are seeking. By attending study tours, students will also have the ability to learn how to operate in a different cultural settings and acquire more experience, so that they can swiftly respond to unique and unexpected circumstances (Davies, Fidler & Gorbis, 2013).

4. CONCLUSION

In conclusion it has been observed that even though technology is an integral part of our lives it is not possible to rely solely on it for international business partnerships, collaborations and the establishments of business operations and business ventures. This study identifies that in order for successful international business collaborations to be successfully conducted, it is paramount that future professionals while still students are exposed to international business settings and decision making opportunities. By allowing future STEM professionals while they are still studying to undertake international study tours it is expected that such experiences will allow them to learn more about the customs, habits and cultures of the other countries which would in turn help them easier understand the importance of local customs, laws and regulations as well as how at different stages of the information system implementations and use cultures and habits may be impacting local operations and decision making processes.

Furthermore, experiences like these are expected to give future graduates a cutting edge advantage as by partaking in study tours they would have the opportunities to learn about the local environments of the countries' visited as well as the business expectations of those countries and regions. The opportunity to participate in business visits, engage in meetings and observe business decision makers in action would allow future graduates the ability to adapt more easily and focus on tasks, solutions and innovations once they commence work.

Moreover, study tours like the one conducted, can open avenues to students in both countries, in Australia and those the Australian students visit, to meet, network and interact with their peers. Peers if they keep in touch, could in later years become each other's business partners and help each other engage in future international ventures. In addition, the organizations study tour students have the opportunities to visit can provided students with the key concepts, knowledge and feedback that is very important when learning how to tackle new markets. Students can also learn about how important their determination and will power are when working in both India and Australia and how top managers in both countries often provide strong support to those who express their desires to excel, innovate and do better.

In the future it is expected that traditional and even online teaching and content delivery methods will be closely linked to industry exposures and experiences and will also be very tightly aligned to international engagements and experiences particularly in STEM disciplines. By allowing students the opportunity to understand and experience global trends and demands and gain opportunities to experience and compare life and work in at least two quite distinctive countries, future graduates will be able to successfully learn about the crucial aspects of the international communications, negotiations and operations. It is also important to note that only once future graduates have had opportunities to engage in international exchanges and understand the global concepts on the ground, will they be able to establish successful international global exchanges and partnerships and meet demands of 21st century recruiters.

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