Developments in virtual learning environments and the global workplace.

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Chapter 10
Employer Perspectives on Virtual International Working:
Essential Skills for the Globalised, Digital Workplace

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ABSTRACT

This chapter summarises the key findings from a doctoral research project that examined employer perceptions of virtual, international working immediately before, during, and after the global pandemic took hold in Spring 2020. The purposive interview sample included new and experienced professionals who work in communication related roles within public, private, and third sector organisations. The research builds on previous evaluative research concerning student and faculty perceptions of virtual exchange. The key issues and themes that employers identified as important for virtual working are presented in their own words. Intercultural competency, digital literacy, and transferable skills are discussed together with business ethics, generational and sectoral differences, and the pedagogical opportunities created by the shift to remote, digital working. A new conceptual model for the training and preparation of staff and students for the post-pandemic, virtual workplace is recommended.

INTRODUCTION

The global pandemic of 2020 has led to revolutionary change in how we work. Leading industry experts suggest that a hybrid, distributed model of working will become embedded in everyday life, which raises serious questions about the future. Viability of certain economic sections, technological determinism, and the work-life balance of employees are all on shaky ground. (BBC Worklife, 2020) As a result, the need for universities to prepare students for the workplace has never been greater.

For organizations of all shapes and sizes, globalization is an economic reality. According to Fortune Global 500 (2019), the world's 500 largest companies generated $32.7 trillion in 2018 and employed 69.3 million people worldwide in 34 countries. The importance of globalization is echoed by the World Bank (2020) who claim that SMEs account for the majority of businesses worldwide and are important contributors to job creation and global economic development. These SMEs represent about 90% of businesses and more than 50% of employment worldwide. Therefore, acquiring and developing transferable skills to work in multicultural teams is essential for students to become employable in the contemporary workplace. Communication, collaboration, teamwork, leadership, responsibility, and interpersonal skills are among the most cited transferable skills (Albandea, 2018; Balcar, 2016; Gibb, 2014; O'Brien et al, 2016; Robles, 2012). However, due to the dominant globalized virtual economy, intercultural and digital skills are of utmost importance for professionals. Consequently, they are also vital for students, and teaching and learning strategies.

According to the Global University Employability Ranking 2020, rankings have risen in universities which have close industry partnerships and an emphasis on skills development. The Global University Employability Survey 2020 also identified a trend which could herald a significant shift in emphasis toward employability: Twenty-eight percent of companies responding to the survey regarded the primary purpose of a university as preparing graduates for the workplace, representing an 8 percent increase over ten years. The survey involved approximately 9,000 employers worldwide, and included questions on a range of issues, including the performance of top universities for employability. This growing emphasis on employability suggests that universities should be reviewing their teaching and learning strategies since the relationship between universities and employers may become more important in years to come. (Baker, 2020).

Universities currently place an increasing emphasis on providing theoretical education in intercultural competence, which Deardorff (2009) defines as possessing the necessary attitudes and reflective behavioural skills. However, studies from the workplace show that this increase in emphasis has not yielded desired results. In fact, the U.S. National Association of Colleges and Employers 2018 Jobs Outlook Survey found that the percentage of graduating seniors and young employees who believed that they were proficient in global/intercultural fluency was much higher than the percentage view of employers. Therefore, to increase employability, students need to go beyond theory and utilize intercultural skills to behave effectively and appropriately in intercultural situations (Bauer-Wolff, 2018). Part of the disconnect may lie in the difference between learning about intercultural differences and experiencing those differences. Not all students are able to travel overseas, and the programs that foster student mobility are able to support only a small percentage of them. One of the strongest arguments in defence of internationalization at home is democratizing the benefits of mobility. This has become even more important during the global pandemic, as study abroad has become more problematic and online alternatives have become universally embedded in the teaching and learning experience.

International trade, enabled by rapid technological advances, has had a profound effect on the way employees work and communicate in a borderless, virtual environment. To remain competitive in a dynamic and global uncertainty, employers need graduates who have future-proof skills such as knowledge, competency, creativity, confidence, flexibility, and resilience. Thus, Higher Education must deliver new pedagogies that will deliver these graduate attributes with programmes that focus on experiential learning, problem solving, soft skill development, interdisciplinarity and digital literacy (SUNY COIL Centre, 2019; Deardorff, 2009; Essig 2013). Within this context, classroom collaboration through online virtual teams can be an effective strategy to enhance intercultural and employability skills. This chapter will

explore some of the issues and opportunities for universities and employers concerning the preparation of graduates for the global, virtual workplace.

BACKGROUND

This section will explore some of the key theoretical concepts which underpin virtual, international working from a pedagogical perspective, including intercultural communication, experiential learning, collaborative online international learning, and technological advantages in learning. Virtual Exchange (VE), including one of its most comprehensive forms Collaborative Online International Learning (COIL), is an innovative educational model for providing students with global competencies that complement traditional forms of physical mobility and academic exchange. COIL involves developing and utilizing novel teaching approaches to foster online student and faculty collaboration. The COIL approach connects students and classrooms around the world through co-taught multicultural and blended online course work that bridges physical distance (Fowler, 2021).

Intercultural Competence in a Global Workplace

The literature about intercultural skills is vast. Terminology is varied, as some authors refer to multicultural and global competency, intercultural competence, intercultural communication, and intercultural sensitivity, among other terms that, as Deardorff and Jones (2012) noted, are often used interchangeably. An interesting and broad definition is provided by Hammer, Bennett, and Wiseman (2003) who defined intercultural competence as "the ability to think and act in interculturally appropriate ways" (p. 422). Soria and Troisi (2014) described global, international, and intercultural competences as including knowledge, appreciation, understanding, and being comfortable in dealing with people from diverse cultural backgrounds. Indeed, literature stresses the knowledge, cognitive and behavioral components of intercultural competence. Deardorff (2009) gave a very important contribution to understanding intercultural competence with her model of intercultural development that resulted from grounded research. She proposed that successful interaction with different cultures is the key concept of intercultural competence. According to her model, respect, openness, curiosity, and discovery are necessary attitudes for developing intercultural competence knowledge and skills. Cultural self-awareness, cultural knowledge, and understanding the world from others' perspectives affect flexibility, adaptability, and empathy; hence, these skills determine the effectiveness and appropriateness of communication with those who are culturally different.

Deardorff (2009) also stressed the dynamic nature of intercultural competence, given by the interplay between affective, cognitive and behavioral components, where interaction outcomes will ultimately affect the individual's development process. Freeman et al. (2009) who also highlight the dynamic nature of this type of competences and their outcomes, share Deardorff's point of view as they define intercultural competence as "a dynamic, ongoing, interactive self-reflective learning process that transforms attitudes, skills and knowledge for effective and appropriate communication and interaction across cultures" (p.1). This is obviously one important aspect for educators, as it implies that the ability to communicate effectively with those who are culturally different can be developed. More recently, Chan et al. (2017) explained that intercultural skill development depends on reflection, discussion and ultimately appreciation of different points of view, stressing that learning is part of the process of interaction. In fact, Chan

et al. (2017) suggested that learning depends on disconfirmation of expectations, which make automatic responses inadequate, make students compare and thus learn both about others' culture and about their own even in online interactions.

Overall, individuals' intercultural communication clearly relates to global citizenship, which, according to Parker, Ninomiya, and Cogan (1999) comprises four dimensions: personal (related to commitment, ethics, and the ability to act in a socially responsible manner), social (related to social interaction ability), spatial (referring to interconnectedness to multinational diversity), and temporal (relating to both historic knowledge and the ability to deal with present and future global concerns). In fact, Parker et al (1999) concluded that the ability to understand, accept, appreciate, and tolerate cultural differences is one of the essential competencies to dealing with problems of the global society. Garson (2016) also stressed the importance of internationalization and intercultural skill development for creating a better society, namely by enabling students to better approach global issues and to develop global citizenship orientations. Still, Harrison (2015) argued that we should look beyond global worker and global citizen domains and consider what the author calls the most important potential benefits of internationalization at home initiatives: empathy, problem solving, and questioning common stereotypes used to categorize the world. These in turn promote critical thinking, creativity, and decision-making. Thus, intercultural competence is closely related to other soft skills, as discussed in the previous section. Thus, it is of no wonder that scholars pay a lot of attention to strategies to develop intercultural competence among students, including initiatives that fall under internationalization at home, also known as virtual mobility.

Experiential Learning for Building Employability

As previously mentioned, the expectations on higher education today are increasingly geared towards the needs of employers. Instructors at both undergraduate and graduate levels are not only expected to impart knowledge in their disciplines but also to develop students' soft skills, in particular intercultural competencies essential for today's global workforce. Until a few years ago, instruction in intercultural competency occurred primarily through the reading of literature and research. In business schools, students are exposed to the theories of Geert Hofstede (1991), whose ground-breaking studies on IBM employees formed the basis for cultural dimensions, as well as Richard Lewis (2006), who divided cultures according to their linear, multi-active and reactive behaviour. While certainly helpful in discerning differences in values and behaviour between cultures, these theories remain abstractions unless put to the test of actual intercultural experience. As Herrington (2008) explained: "we cannot impose this kind of learning on students, it cannot be taught, only learned through experience" (p. 37). Starke-Meyerring (2007) agreed that "Becoming aware of the culturally boundedness of one's ways of knowing and negotiating diverse ways of knowing are difficult to teach but must be learned through active participation" (p. 8). Aware of the need for real intercultural experience, many universities encourage students to participate in study abroad programs and have opened their enrolment to foreign students in the hope of promoting diversity on campus and increasing their global reach.

While these endeavours are certainly important, the question remains whether most students are recipients of intercultural exposure. Courses in intercultural competence are often offered as an elective, meaning that students who take part are often already inclined towards the topic. Or the topic is incorporated as an add-on to a syllabus already packed with content. Furthermore, instructors often lack the background in the subject themselves, leading to inconsistencies or, worse, underlining misconceptions concerning cultures. Lastly, students often do not possess the financial means to spend a semester

or year abroad, fearing the risk of extending the cost and time until graduation. Particularly, part-time students are unable to leave the country due to work and/or family obligations.

Given the limitations concerning conventional ways to expose students to intercultural experiences, instructors have embraced the opportunities that technology provides to bring intercultural experience into the classroom. Through freely accessible, collaborative software programs, students meet their counterparts from universities all over the globe to engage in intercultural virtual team projects. While collaborating virtually, students gain an understanding of working across time zones, juggling assignments over different national holidays, meeting expectations despite language barriers and different approaches to work and further cultural obstacles. Students are exposed to the kinds of challenges they would normally encounter while working with people of different cultures and develop the skills to overcome these challenges successfully. Without leaving their home countries, students nevertheless undergo experiential learning in intercultural contexts, thus acquiring first-hand valuable intercultural competencies which will aid them in their professional careers.

Collaborative Online International Learning

Virtual team projects conducted between courses at universities located in different parts of the world have become increasingly popular in recent years. These projects take many forms and have many names such as global learning network environments (Starke-Meyerring, 2008) or "eduscapes" (Bégin-Caouette, 2013). The trend towards engaging students in intercultural experience through virtual collaboration can perhaps be best described by the term collaborative online international learning or COIL, an acronym that is appearing on campuses throughout the United States and is slowly being adopted in Europe. A centre for COIL projects is SUNY's COIL Institute, which facilitates networking between faculties, offers training and hosts conferences (https://coil.suny.edu/).

While there are conflicting opinions concerning the effectivity of heterogeneous groups such as those created through COIL projects, the author agrees with Gorgônio et.al. (2017) that they are more effective, share more knowledge and improve mutual learning as well as more accurately reflect the diverse workforce graduates must navigate today. However, the importance of building relationships and developing trust for successful virtual multicultural team collaborations is highlighted by Molinsky and Gundling (2016). According to Starke-Meyerring and Andrews (2006) the importance of instructors as role models through the intensity of, and interest in, their own collaborations can also not be underestimated as part of the COIL process. Using the same grading rosters and carrying out a grading session where all instructors evaluate the submitted work can have a "gelling" effect and lend cohesion and credibility to the virtual teams experience from the students' and the instructors' perspective (Bégin-Caouette, 2013).

So, what is it that employers are looking for when it comes to intercultural knowledge and competence, and how does this relate to COIL? As mentioned earlier in this chapter, employees require greater levels of awareness and understanding of other cultures to operate effectively within a multinational, global context (Diamond et al, 2011). Positive working relationships (often marked by the presence of effective soft skills) with international partners, investors, suppliers, customers, employees, and other stakeholders are critical to the sustainability and success of many organisations. These soft skills which are tested and cultivated through virtual, experiential learning opportunities like COIL, are highly valued by employers because they are transferable to any workplace context (Albandea, 2018; Robles, 2012). This is also important for employees in an era where portfolio careers are becoming more prevalent and lifelong positions working for the same employer are less common (IMF, 2017).

In addition to strengthening soft skills, enhanced cultural awareness may also help to mitigate unhelpful preconceptions, misconceptions or common stereotypes held about other cultures and reduce the probability of causing offence unintentionally during a work transaction or conversation (Harrison, 2015). The ability to recognise, respect and work with such differences is a fundamental requirement of working in a team, and effective teamwork is essential in any workplace. Enhanced cultural awareness may also improve the organisation's ability to develop more effective corporate strategies in other countries if local knowledge, awareness, and understanding is used to inform global thinking (Tench & Yeomans, 2017). Another trait, helpful in the workplace and desirable to employers, is the ability to work confidently with people from other countries. Confidence may include taking the first steps to initiate contact, proactively taking the lead in a project, being proactive in offering ideas and comments and being willing to take constructive criticism and feedback on your own work. Tuckman's (1977) five stages of group development (forming, storming, norming, performing and adjourning) are amplified by the additional nuances and complexities of a virtual, intercultural, experiential project. Intercultural projects can also help with tolerance and respect (Parker, 1999), because participants are likely to encounter a wider range of communication challenges than they would in a local project.

The ability to innovate and be competitive in a dynamic and uncertain global market is of increasing importance for many organisations (IMF, 2017). For companies to remain sustainable, resilient, and future proofed, they will require employees who are creative, entrepreneurial, and digitally literate (Essig, 2013; IMF, 2017). COIL projects which encompass student-led, experiential learning can promote problem-solving, critical thinking and the adoption of fresh perspectives. The ability to self-monitor personal communications and react and adapt appropriately is central to successful intercultural communication (Chan et al, 2017; Deardorff, 2009). COIL projects can help to improve intercultural communication knowledge and competency through self-reflection and the acquisition of new or improved digital skills linked to collaborative virtual platforms. The ability to recognise quickly what the communication problems are and identify appropriate solutions are vital to successful communications within an organisation and likely to be valued by employers.

Technological Advantages for Experiential Intercultural Learning

One of the strongest arguments in defense of internationalization at home is democratizing the benefits of mobility. Indeed, not all students are able to travel overseas, and the programs that foster student mobility are able to support only a small percentage of them. Therefore, the continuous developments and spread of technology open opportunities for many more students to engage in intercultural experiential learning. As Bhat and McMahon (2016) noted, technology gives us the means to collaborate and engage with peers all over the world, providing immense internationalization opportunities for higher education institutions, including to the enhancement of multicultural knowledge, awareness, and skills. Moreover, as Chan and Nyback (2015) demonstrated, technology-enabled intercultural communication activities are expected to be effective for developing cultural sensitivity and competence. Younger students who are digital natives also adapt easily to virtual mobility.

Underserved populations benefit from technology-enabled interactive intercultural communication activities. Zielezinski and Darling-Hammond (2016) cited findings from Bos (2007); Callow & Zammit (2012); Elam, Donham & Soloman (2012); Figg & McCartney (2010); and Watson & Watson (2011) to support that point. By use of face-to-face or digitally mediated real-time communication with someone from another culture or country, these populations are exposed to opportunities for critical thinking,

analysis of complex content, and examination of how their own perception of identity connects to those who have seemed "different" from their own. As Zielezinski and Darling-Hammond (2016) wrote, "With the rise of the networked world, neither culture nor community needs to be local anymore" (p. 19). This understanding of connected-while-different can have significant advantages for those employed in a global company.

EMPLOYER EXPERIENCE AND OPINIONS OF VIRTUAL WORKING

The next part of this chapter will present the findings from a doctoral research project which took place in the Spring of 2020. It will discuss the key themes which emerged from the qualitiative data set using direct quotes from participants to illustrate each point. Finally, drawing upon an analysis of these themes, a new conceptual model highlighting the essential skills and attributes for effective virtual, international working is proposed.

Research Project Methodology

To obtain a deeper understanding of employer perceptions of COIL, the research investigated the following core questions:

1. What impact can COIL projects have on students' transversal skill development and employability from the perspective of employers?
2. Should universities engage with COIL, and if so how should learning and teaching strategies evolve to accommodate this?

The following aim and objectives were identified to help shape the research and enable it to progress.

Aim

1. To provide qualitative evidence of the relevance and need for COIL as preparation for the global, virtual workplace; and to support the design and implementation of COIL within universities worldwide.

    Objectives

1. To develop a broad and deep understanding of the theoretical arguments which are relevant to COIL through a complete and accurate synthesis and critique of seminal and current theory.
2. To investigate how employers are engaging in collaborative online international activities, the type of transversal skills it can develop, and how they think teaching and learning strategies should evolve to better prepare students for the global, virtual, workplace.
3. To make an original contribution to emerging COIL theory through the analysis of employer constructs of COIL, and to develop a new conceptual model to support training in this area.

Research Philosophy and Paradigm

Kierkegaard (1846) controversially described subjectivity as truth, and truth as subjectivity in opposition to the dominant positivist paradigm. The ontology for this research was subjective because it involved multiple realities or 'truths' which exist within the minds of the participants. Consequently, an interpretivist paradigm (which assumes that human experience and understanding of the world is socially constructed) underpinned the research, because COIL was perceived in a myriad of ways by the participants. The subjective, dynamic relationship between the researcher and the participants also corresponds with an interpretivist paradigm (Kierkegaard, 1846; Packer, 2010; Roulston, 2010; Lapan, 2012).

Methodological Approach

To be congruent with the research philosophy, an inductive approach was adopted which involves building theory from the findings rather than setting out to prove or disprove existing theory. Packer (2010) argues that a methodology which involves a program of inquiry is 'more adequate to the complexities of human life and human being' (41). This reflects the subjective nature of the research and indicates that a qualitative methodology which facilitates a more in-depth, fluid analysis is most appropriate. The research therefore sought to understand the different social constructs of COIL that exist, how they relate to theory, and the implications for COIL practice within universities. The intention was to develop a phenomenological epistemology by studying the experience of employers and expanding existing knowledge of COIL.

Sample

Although the proposed research was not empirical, it was still necessary to limit and define the scope of the research for logistical reasons. As mentioned earlier, studies from the workplace show that the increased emphasis on theoretical intercultural education has not yielded desired results, and there is a disconnect between student and employer perceptions of intercultural competency (Bauer-Wolff, 2018). While much research has been carried out into student perceptions and experiences of COIL (Chan and Nyback (2015); Swartz, S, Barbosa, B., and Crawford, I, 2020; Helm, Guth, and Farrah 2012), there is less available data relating to employer perceptions. The research therefore focused exclusively on employer perceptions of COIL. The willingness of employers to participate was a pre-requisite for success, therefore participation was incentivised with a guarantee of anonymity in the reporting of the findings.

Guest, Bunce and Johnson (2006) argue that the size of a purposive sample relies on the concept of saturation, or the point at which no new information or themes are observed in the data. Therefore, a wide range of roles, backgrounds, and levels of experience among participants can help to enable a full range of constructs to be identified and avoid early data saturation. Primary data collection for this research project involved a series of twelve in-depth interviews with employers from a range of geographical, educational, and employment backgrounds (Appendix 2). All the data collection took place during a condensed time-period in 2020 to enable a more focused analysis of employer perceptions at a specific moment in time. Five interviews were conducted just before the UK Covid-19 pandemic lock down in March 2020: one on the first day of lock down, and six after lockdown has started. The timing coincided with a digital revolution in homes, schools, and workplaces. The world rapidly adjusted to remote-working and home-schooling, and embraced the technologies commonly associated with COIL.

Perhaps not surprisingly, there was a high degree of reflection among participants about how COIL has moved from being something that will be necessary in the future, to something which is essential now.

Data Collection

Semi-structured interviews were used to allow the research question areas to be explored. According to Packer (2010), the semi-structured interview is commonly adopted in qualitative research and is a tried and tested method. It allows some flexibility to the interview within a loosely defined structure. The interview questions (Appendix 1) examined participant perceptions of transversal skills; virtual and intercultural competence; university COIL projects; and the type of learning outcomes universities should be aspiring to within the field of virtual exchange. The first interview was used to test and refine the interview questions and the technology used for the interview. Open ended and exploratory questions were used to induce themes which could illuminate aspects of COIL theory and practice, and how universities might evolve their teaching and learning strategies. The test revealed that some of the questions were too vague or overlapping, additional signposting and explanation was necessary, and more scene setting discussion was required at the start. Packer (2010) argues that research interviews require a 'methodological awareness of question forms, a focus on the dynamics of interaction between interviewer and interviewee, and a critical attention to what is said.' (2010: 49). The primary data was transcribed and analysed after each set of interviews, allowing the research process and interview questions to evolve over time, reducing the risk of early data saturation and enabling a deeper analysis of the subjects.

Hanna (2012) argues that advances in technology have enabled non-conventional approaches to be used in interviews (e.g., Skype), which can facilitate a degree of paralinguistic communication between interviewer and interviewee. The platform Zoom was used for all twelve interviews with a high degree of success. The widespread adoption of Zoom at the start of the Covid-19 pandemic inevitably made the use of this platform easier for all concerned.

Data Analysis

Packer (2010) states that 'a standard practice for qualitative research has become accepted in which interviews are conducted, the data are coded, and the results reported in the form of summaries written in formal language.' (42) Subjective constructs must be 'extracted from their context, their indexicality must be repaired, and commonalities must be found across individuals to arrive at objective statements.' (121) Core themes were extracted from the transcripts for this research. Interpretive Phenomenological Analysis (IPA) was applied to the data which enabled superordinate and subordinate themes to be identified, and scrutiny of the signs and indicators embedded in the responses. According to Brocki and Wearden (2006) 'The aim of IPA is to explore in detail the processes through which participants make sense of their own experiences, by looking at the respondent's account of the processes they have been through and seeking to utilise an assumed existing universal inclination towards self-reflection.' However, this approach is limited by the ability of the participants to articulate their thoughts and experiences, and the researcher's ability to reflect and analyse. The researcher attempted to mitigate this by encouraging participants to self-reflect, and by conducting a series of structured analyses of the data.

Blair (2015) argues that 'when coding qualitative data, researchers should be methodologically thoughtful when they attempt to apply any data coding technique; that they do not assume pre-established

tools are aligned to their particular paradigm; and that they consider combining and refining established techniques to define their own specific codes.' (14) Data coding and analysis was therefore carried out manually by the author, and the following coding system was created specifically for this project:

Themes were numbered in alignment with the order of questions (Appendix 1) e.g.

SUP1 = Superordinate theme 1
SUB1 = Subordinate theme 1
REF1 = Reflexive theme 1

Participants were numbered in the order in which they were interviewed (Appendix 2) e.g P1 = Participant 1.

The qualitative data generated by the research was rich and varied providing a comprehensive insight into the perceptions of a small number of employers in relation to COIL. Following a thorough examination of the data, eight significant themes were identified:

- Technological challenges and opportunities
- Virtual team-work challenges and solutions
- Transversal skills and future employability
- Intercultural skills and globalisation
- Pandemic effect, remote-working and digital literacy
- Pedagogical balance, challenges, and opportunities
- Business ethics and social responsibility
- Generational and sectoral differences and adaptability

Findings and Discussion

In this section the eight significant themes identified through the research will be discussed in relation to pertinent aspects of the literature.

Technological Challenges and Opportunities

Bhat and McMahon (2016) argue that technological advances enable intercultural experiential online learning and this was reinforced by the participants who described a wide range of platforms and applications being used in the workplace to facilitate global collaboration and communication, and the importance of training and learning though direct experience:

We currently use Skype, Zoom, a little bit of Slack. We've got Teams that's now running. They're moving us to the (Microsoft) three-six-five environment, so I think they're going to bring online Yama, which we've been using for a bit. And there was another one, which's name completely escapes me… Trello?

It depends on whom I'm speaking with, because I have a more flexible small business. Where I have some public authorities or big companies, banks for instance, who really thought a lot about which program, which software, which service to use, and they kind of define it. It's mostly still Zoom for the more progressive ones, Microsoft Teams, and WebEx or so.

I think you do need to have general digital literacy. I think if there's a standard operating guide, or IT to show someone once, I think it's something you can pick up. But in my experience certainly with some colleagues that it's new to them, I think there's that initial barrier because they've never used it before, and maybe not keen to embrace it. So, I think these things just need guidance or a little bit of training.

It could be argued that the pandemic has created an environment where digital skills training and direct experience of virtual working has been forced to the top of the coprorate agenda, and consequently employees will eventually become more comfortable adapting to new technologies through constant exposure and higher levels of support. The need to expose students to similar conditions to increase their digital literacy and adaptability is therefore paramount. The parallel shift to online and blended learning in Higher Education during the pandemic may go some way to achieving this, however it will need to be maintained post-pandemic if this skill set is to be retained and developed. The technological challenges and opportunities identified by the participants strongly echoed those of students and faculty from previous research (Swartz et al, 2020) including platform compatibility, infrastructure and support, cost and efficiency:

I think most companies are going more and more global, and especially with everything which is happening at the moment, people are realising that you can have an online environment and work in this way, you don't need to spend loads of money necessarily on opening an office in a different country, because you can actually do these things remotely.

Definitely (good IT infrastructure support). Especially nowadays when most of the software online you have to have the most current software, you have to have the most current web browser, have to have the most current phone to be able to run it.

I think the skills will be very important come the future. I think we're going to move more into the digital organisation as a charity to survive, more than anything. It cuts costs, it cuts overheads, being able to use remote working, being able to use a laptop over having a desktop PC. It's going to revitalise the third sector. Just unfortunately we can't afford it.

The global pandemic has forced greater investment in IT infrastructure, training and support to ensure continuity of operations for many organisations, and this may go some way to addressing the issues highlighted above. However if these issues are left unaddressed, for example in organisations which can't afford the capital investment, maintenance and support necessary, these problems could be exacerbated as wider industry, the supply chain, clients, and customers become increasingly reliant on technology. Similarly, it will be incumbent on universities to ensure their IT infrastructure, training and support remain in line with industry standards so students develop the relevant skills for employment.

Virtual Team-work Challenges and Solutions

Reinforcing existing research with student participants around globalisation and multicultural teams (Swartz et al, 2020), the participants highlighted challenges with time zones, team dynamics, language and cultural barriers, and the need for clear instructions, role allocation and leadership when collaborating internationally online:

A lot of people don't think about, at the start of a project you need to have really, clear roles and responsibilities and ways of working.

It could, if not managed well, enhance some of the difficulties we see with face-to-face projects, which is not getting together, not being willing to challenge other people's opinions, falling out because other people are not pulling their weight. I think it could magnify some of those problems, if not managed, rather than actually take them away.

I think one is timing. Because during that Zoom meeting, the biggest challenge we faced is when are we going to meet, because we are having different time zones, in Scotland, another person in the US, another person in Germany, and whatever.

English is almost a must-have today in the modern workspace because you collaborate with people from around the world, and English is probably the number one language that is being spoken and that almost everybody would understand, or most likely understand. So, that is a challenge.

These comments reveal that the ability to work in a hetergoenous team comprising different backgrounds, locations and management practices presents a significant challenge for online international collaboration. Facilitating COIL projects at university provides a safe space for students to develop the particular interpersonal and team skills, and reflexivity, required for this type of working.

Transversal Skills and Future Employability

The importance of transferable skills for graduate employability highlighted by Albandea, Balcar, Gibb et al, was overwhelmingly reinforced by the participants who placed a particular emphasis on interpersonal communication; self-awareness; emotional intelligence and adaptability as vital attributes for the contemporary workplace:

So, it's being able to work in groups, collaborate, negotiate, empathise, co-create, park assumptions. I think all these skills are important in the workplace. That's what distinguishes people from the artificial intelligence if you like.

I can see maybe self-awareness. Like maybe the ability to understand your character and your feelings, your personality, what you can contribute, and your shortcomings as well. I know it also goes with knowing the people you are interacting with.

The other thing probably that is a lot more subtle is emotional intelligence. Now, I struggle to find people that are taught this, or even taught about it. But what you find is as we progress through the business and start progressing up the chain, emotional intelligence plays a huge part in how we can work and how we can communicate better.

This apparent emphasis on communication and empathy echoes findings from Harrison (2015) and Holmes and O'Neill (2012) who concluded that intercultural engagement enables participants to develop, a particular type of reflexivity, by juxtaposing individual perspectives and cultural norms and

thereby forcing them to be questioned. In a virtual workplace where paralinguistic expression can easily be misinterpreted, the ability to put yourself in the other person's position and consider the different ways that your own communication may be understood, is likely to become more important in the post-pandemic, digital landscape. Teaching and learning activities which promote self-awareness, reflection and empathy may therefore become more apparent too.

Intercultural Skills and Globalisation

The assertion by Diamond et al (2011) that social interaction skills include intercultural competence was reinforced by most of the participants, although some believed this would be less relevant to non-globalised organisations. There was however a widely held view that having intercultural competence would be a useful skill for future career progression and an ever evolving digital, global working environment. Some participants reflected on a perceived lack of intercultural competence in themselves and others, and the need for more professional development in this area:

I think it's important in the workplace because I think increasingly a lot more companies are global; they're employing a lot more global staff. I think it again comes down to what makes us human and understanding how different people from different cultures perform in the workplaces.

I think it's becoming more and more important. I know that certainly in the communications and marketing team, most of us were at uni maybe a decade ago, and we're already starting to feel that we're one step behind.

It would be so good for when you leave uni and when you graduate, because you have those (intercultural) skills base. Not particularly in my field, but in other fields they are becoming more international, so you need to be able to have the skills, you need to be able to work with international colleagues.

These comments reinforce the argument that the world is becoming ever more globalised, digtial and inter-connected, and the corresponding need for intercultural sensitivity and competency is growing. The ability to develop these skills as part of a university course has traditionally been confined to physical mobility and exchange programmes; and COIL projects are a relatively new and emerging form of teaching and learning activity. It is therefore perhaps not surprising that some of the participants recognised the absence of these skills in themselves and others, and at the same time see the potential that COIL projects offer in making the development of intercultural skills accessible to all.

Pandemic Effect, Remote-Working and Digital Literacy

Five interviews were conducted just before the UK pandemic lock down, one on the first day of lock down, and six after lockdown had started. This resulted in several poignant references to the global pandemic and how it has forced rapid digital transformation within organisations across all sectors, and the human impact this has had. Many believed the pandemic has had a positive impact on digital literacy and digital infrastructure and a sudden dramatic shift to remote working. The embracing of technology and more flexible working was regarded as necessary and something that most participants would like

to retain in the future, however it is not without its challenges and the importance of the aforementioned transversal skills were seen to take on more importance within this context:

And what we're now experiencing with the pandemic is proving that more and more, because the international corporation now is going "look, I've just got to do it, we haven't got a choice", and in the period of seven days, they've rolled out a new module, everyone has got an update on the computer, and it works. So, there's proof that it can happen but a lot of it is bureaucracy.

My meeting when I go back to the office is about remote working, because of the current situation that we're in, because our IT systems are so outdated, the remote working isn't as easy as it would be working in other jobs.

In this day and age, it is extremely vital for all administration and from the top to the bottom to know how to use these (digital) platforms, because you never know when you're going to be in this scenario.

I think if we use the pandemic that's now happened, it's proved that those (transversal) skills need to exist.

These comments reflect a critical moment in time when the first wave of the pandemic took hold around the world, and organisations of all shapes and sizes had to find a new way of working online within a very short timeframe. The level of organisational and individual resilience alluded to in the comments is in many ways remarkable, and illustrates the intrinsic adaptability, innovation, and solution focused nature of human society and industry. If the future workplace becomes an established and accepted hybrid of home and office distributed around the globe, driven by rapidly evolving technological change, graduates will need to develop a future-focused mind-set centered on creativity, flexibility and life-long learning.

Pedagogical Balance, Challenges, and Opportunities

The growing emphasis on theoretical education in intercultural competence highlighted by Deardorff (2009), offset by the need to use intercultural skills to acquire competency recommended by Bauer-Wolff (2018), were reinforced by many of the participants. The widening gap between theory and practice was highlighted as well as the need for universities to embed more 'real life' experiences into the curriculum. The importance of selecting appropriate global case studies and issues for COIL projects was considered vital for a meaningful learning outcome:

I think it very much depends on the course you did, where you went to university, the approach your university takes to your learning, whether or not they're purely academic-focused, and that's what's really important to them, and not giving you the skills in order to take into the workplace, and those transferable skills. I think that does make such a difference.

I have seen with prior jobs that I held before I joined (company) that there was not this competence, definitely not. You have people that graduate from university, they join the workforce, and they are not used to that because they never experienced talking to a client through a video chat, they didn't experience a virtual classroom.

I think what would have made this (COIL project) interesting is if there was "find a problem and give solutions to that problem", but that problem has to be on a global scale, it can't just be different regions, because I think that would have been really interesting to do.

I think it would be interesting if you could actually get company buy-in to this, that there were companies actually volunteering to do this. Where there were real cultural differences that the students could identify.

The balance between theory and practice in universities may need to be addressed if employers do not feel that graduates are entering the workplace with sufficent skills to do the job. Skills can be acquired and developed through work experience, however it could be argued that the highly dynamic and uncertain workplace of the future will need graduates who can hit the ground running. Carefully designed COIL projects may offer the opportunity to develop essential intercultural and digital skills at university while simultaneously applying theoretical, subject-related knowledge.

Business Ethics and Social Responsibility

Some participants stressed the importance of business ethics and social responsibility within virtual collaboration and learning, including the need to select important global issues with a focus on collaborative problem solving; recognising cultural frames of reference; and mitigating the digital divide and inequalities among participating students and wider society:

A second one (COIL project idea) would be how can you make sure if we have real inclusion in the workspace, also virtually, for example what happens to the people that can't see, that might have a problem with their sight? What about the people that are not able to speak, that can only write? How can we have this kind of inclusion?

I think once we've addressed the pandemic, we're going to find people are going to want to start to address other problems more and more. It's already been mooted if we were dealing with climate change in the same way as this, if we were dealing with antibacterial resistance, we would be dealing with them in the same way. I can only see that their need is going to grow.

I think one thing that you will learn when you collaborate or work internationally, you will always figure out that people are struggling with different kinds of situations in a day-to-day world or in a project.

The Association of American Colleges and Universities identifies six skills as central to effective global learning including: Global self-awareness, Perspective Taking, Cultural Diversity, Personal and Social Responsibility, Understanding Global Systems, and Applying Knowledge to Contemporary Global Contexts. Participants were asked to comment on the extent to which a sample COIL activity achieved each of these outcomes, and some of their responses are included in the comments above. The importance of ethics and corporate social responsibility was a less prominent theme in the overall responses, however when pushed to consider this more closely some of the participants agreed that this should be a more central aspect of COIL activities, and the ability for graduates to recognise and prioritise these issues as an important aspect of working life.

Generational and Sectoral Differences and Adaptability

The mismatch between student and employer perceptions of intercultural competence highlighted by Bauer-Wolff (2018), was not a strong theme in the interviews. Instead, participants highlighted perceived differences in digital competence based on age, sector, geography, and the level of first-hand experience individuals have been exposed to. Graduates who have undertaken experiential, competency-based learning were perceived to be at an advantage in the employment market and most believed that universities should do more to facilitate this sort of learning:

Then you have these youngsters that know everything about it and probably use fifty different apps or services that are available. So, you have to connect the younger and older generation, everybody has to know how it works.

So, it's maybe not just upskilling the youngsters, but it's upskilling the generation that's already in place, and they are maybe not flexible enough to do it, and they are maybe not able to do it quick enough… And the other challenge we have is whilst we may use those in Europe, in the same company, they're not using them in Japan or North America…We don't have the luxury of time (in a charity), we don't have the luxury of getting an IT department to make something work for us; we have half an hour a day where we need to do something, so it has to work.

I'm not sure the students are fully aware of different technologies and looking at technology in its different component parts as saying "well, that's how that will affect that job, that's how that will affect that job." I think at the moment, they still think of social media, Instagram, and the rest is just technology, unless they're specifically studying it as part of their course.

I think what's interesting is people older than me who haven't had that IT training in schools, that's going to be quite interesting going forward, how they react.

These comments reveal an interesting dichotomy between participants who believe that young people have innate digital skills and the ability to adapt to new technology quickly, and those who believe they are less well equipped than older students or more experienced professionals. This might suggest that the answer lies somewhere in between, and age is perhaps not as reliable an indicator of digital competence as people might imagine. Larger, well-funded organisations are perceived to have greater resources to adapt to technological change, however technological innovation also offers cost saving opportunities for smaller organisations such as charities. In large, multinational companies, differences in geographical access to technology, infrastructure and support can also affect the ability to work virtually across borders effectively. Higher Education teaching and learning strategies should seek to develop a pedagogy which recognises and addresses these issues.

The significant themes arising from the interviews appear to suggest that the employers and alumni who were interviewed place considerable value on graduate transversal skills, and regard the skills acquired through COIL as career enhancing. The participants reflected on their own, and others, strengths, and weaknesses in relation to intercultural and digital competence (in particular). They identified a need for more experiential learning within universities to facilitate this, and with some degree of urgency in response to the global pandemic.

SOLUTIONS AND RECOMMENDATIONS

This research project set out to examine the impact that COIL projects can have on students' transversal skill development and employability. The literature suggests that intercultural competence is a vital transversal skill for success in a global workplace (Deardorff, 2009; Parker et al 1999; Garson, 2016; Harrison, 2015). This was reinforced by the participants in this research study who identified the ability to understand cultural differences; understand global issues; and take an empathetic, critical approach to problem solving, as key attributes they would value in themselves and others. However, other transversal skills including interpersonal communication; digital literacy; and adaptability were also identified as important within the global employment context, especially in the post pandemic era, because the sudden shift to remote working has placed far greater emphasis on these skills. It is therefore recommended that COIL theory and practice should focus on a broad range of transversal skills in preparation for the future workplace.

Experiential learning has long been regarded as an essential tool for building employability into the curriculum because it enables students to apply theory to practice in a safe, work-related context (Herrington, 2008; Starke-Meyerring, 2007). COIL projects provide a virtual, experiential learning opportunity ideal for the 21st century, post pandemic workplace which has made remote, collaborative working the new normal. It is therefore incumbent on universities to ensure their teaching and learning strategies reflect the real world of work, and experiential learning opportunities embrace the digital as well as the physical realm.

This research project also considered how far universities should engage with emerging pedagogical theory in the field of borderless experiential learning, and how teaching and learning strategies should evolve to accommodate this. COIL is now a well-established pedagogical approach which any university can adopt and adapt with relative ease and limited cost (Bégin-Caouette, 2013; Gorgônio et.al. 2017; Starke-Meyerring, 2007; Albandea 2018; Robles, 2012). The online platforms, tools and IT infrastructure which are necessary for COIL projects to succeed (Bhat and McMahon, 2016; Chan and Nyback, 2015; Zielezinski and Darling-Hammond, 2016) are now firmly embedded within most homes, universities, and workplaces in the post pandemic era, making it easier than ever before to take advantage of the benefits which COIL offers for students and employers.
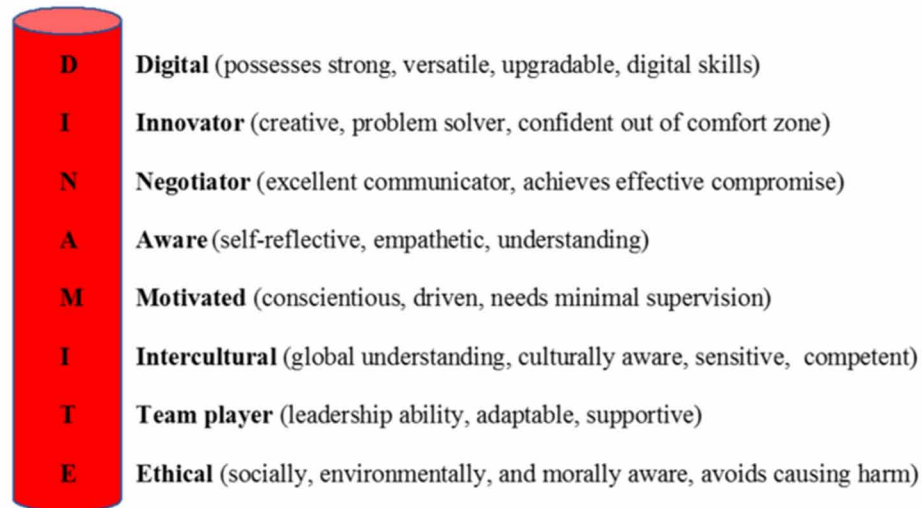
A New Conceptual Model

The DINAMITE model (Crawford, 2020) is an original concept that has been developed by the author in response to the key themes and sentiments highlighted by this research. It captures the essential attributes which universities and employers should seek to cultivate and nurture in students and staff, if they are to successfully address the need for future ready graduates and employees in a rapidly transforming, globalised, digital employment market. These attributes can be developed through a range of experiential learning activities; however, the findings of this research suggest that well-designed COIL projects with clearly defined objectives, roles, and assessment criteria; a meaningful global client, case study or problem; and a reliable IT infrastructure, can be an effective approach for developing these traits which are transferable to any workplace setting.

The dynamite metaphor implies that when all these attributes are combined, the individual has the potential to make a positive 'explosive impact' in terms of productivity and performance, within the global, virtual workplace.

Figure 1. DINAMITE – 8 essential attributes for the global, virtual, workplace (Crawford, 2020)
Source: (Crawford, 2020)

D	**Digital** (possesses strong, versatile, upgradable, digital skills)
I	**Innovator** (creative, problem solver, confident out of comfort zone)
N	**Negotiator** (excellent communicator, achieves effective compromise)
A	**Aware** (self-reflective, empathetic, understanding)
M	**Motivated** (conscientious, driven, needs minimal supervision)
I	**Intercultural** (global understanding, culturally aware, sensitive, competent)
T	**Team player** (leadership ability, adaptable, supportive)
E	**Ethical** (socially, environmentally, and morally aware, avoids causing harm)

What Do Universities Need to Do?

COIL is gaining increasing recognition around the world and the number of universities exploring and adopting it is growing rapidly. The popularity of conferences such as IVEC (International Virtual Exchange Conference) and webinars such as 'Enhancing global learning and intercultural competence through VE/COIL: lessons from the field' led by the American Council on Education in 2021, help to demonstrate this. Organisations such as the SUNY COIL Centre, Stevens Initiative, UniCollaboration, XCulture, and Erasmus+Virtual Exchange have created a growing network of global partners which universities can join, and the opportunities for COIL projects are endless. COIL is not necessarily a new concept. However, its moment appears to have finally arrived as we enter a new global, digital era in Higher Education. Because of the global pandemic democratisation of student mobility and interna-tionalisation at home imperatives have been pushed to the top of the Executive agenda. To ensure their students graduate with DINAMITE on their CVs, Universities need to act now and embed COIL across the wider curriculum to avoid being left behind.

Promoting Intercultural and Virtual Skills to Employers

By creating a strong profile on LinkedIn and attaching e-portfolio evidence of COIL participation, coupled with an announcement of having worked in a virtual team intercultural communication experiential project, students can present that experience and possibly make themselves a more marketable employee (Utz, 2016). If recruiters for global companies do use LinkedIn to find potential candidates and see among other qualifications a description of COIL learning activities described in an e-portfolio, it stands to reason that the candidate who possesses these will have an edge on employment for these international firms. With that knowledge, the advantage for the faculty member who assigns the experiential learn-

ing assignment, and then adds an e-portfolio experience and LinkedIn profile design to the project, is that the student may suddenly take a much more serious approach to the experiential classroom project.

FUTURE RESEARCH DIRECTIONS

This qualitative research study was limited to twelve participants, mostly from business communication backgrounds in the UK, and mostly male. The study could usefully be extended to a wider range of employers from different sectors in different countries, to augment and test the validity of the findings. A quantitative method such as a global survey of employers would also increase the validity and generalisability of the findings. Some of the participants highlighted the importance of designing COIL activities which address important global social and ethical issues; however, this finding requires further investigation to understand how it might be applied in a meaningful and practical way. The research was conducted during the first wave of the Covid-19 pandemic, at a point when workplaces around the world suddenly and dramatically turned almost exclusively digital. It would be interesting to compare these findings a year later to see if opinions of digital and intercultural skills have changed, and if perceived competency levels have improved as a result of the pandemic. The extent to which workplaces and universities have adapted to a hybrid, distributed model of working would also be interesting to analyse, and the extent to which COIL style projects have been adopted by trainers and educators to develop the kind of transferable skills employers want and need. Finally, the dichtomy of opinion concerning the digital competence of young versus older generations deserves further investigation, as this may help to inform future pedagogy and curriculum design in Higher Education. The new conceptual model (DINAMITE) will require further testing to confirm if it is appropriate and relevant for use in universities and workplaces.

CONCLUSION

Instructors are involving students in collaborative online projects across the globe to simulate real life intercultural experiences, thus best preparing them for future global workplaces. This chapter illustrates some of the challenges and benefits both graduates, and employers can expect from intercultural, experiential, learning online, and the type of transferable skills which employers value the most. In the post pandemic era, Higher Education must embrace and embed digital literacy, intercultural competency, interpersonal and reflexive skills within the core curriculum. They must develop pedagogies which promote practical experience over theoretical learning, if students are to succeed in the rapidly evolving global, digital workplace. Organisations of all shapes and sizes need these skills now, and their own survival—as well as that of Higher Education-- may depend on the ability to meet this demand. Further research should be undertaken to verify the findings of this study and to examine the relevance and utility of the DINAMITE model in universities and workplaces; and students should be given proper verification for experiential learning and the acquired skills so that employers can identify their usability.

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REFERENCES

Albandea, I. (2018). *The Employer Perception of Non-linear Educational Pathways. A Vignette Study with French Employers.* https://ideas.repec.org/p/hal/journl/halshs-01947264.html

Association of American Colleges and Universities. (2020). *Global Learning Value Rubric.* https://www.aacu.org/value/rubrics/global-learning

Baker, S. (2020). *Firms shift towards wanting 'work-ready' graduates.* Times Higher Education (THE). https://www.timeshighereducation.com/news/firms-shift-towards-wanting-work-ready-graduates?utm_source=THE+Website+Users&utm_campaign=38489fc161-EMAIL_CAMPAIGN_2020_11_18_12_26&utm_medium=email&utm_term=0_daa7e51487-38489fc161-62284285

Balcar, J. (2016). Is it better to invest in hard or soft skills? *Economic and Labour Relations Review*, *27*(4), 453–470. doi:10.1177/1035304616674613

Bauer-Wolff, J. (2018). *Overconfident Students, Dubious Employers.* Inside Higher Ed. https://www.insidehighered.com/news/2018/02/23/studystudents-believe-they-areprepared-workplace-employers-disagree#.WpATRGkybjY.linkedin

Bégin-Caouette, O. (2013, Summer). Global networked learning environments as eduscapes for mutual understanding. *Critical Intersections in Education: An OISE/UT Students Journal, 1*, 54 70.

Bhat, C. S., & McMahon, M. (2016). Internationalization at home for counseling students: Utilizing technology to expand global and multicultural horizons. *International Journal for the Advancement of Counseling*, *38*(4), 319–329. doi:10.100710447-016-9274-7

Blair, E. (2015). A reflexive exploration of two qualitative data coding techniques. *Journal of Methods and Measurement in the Social Sciences*, *6*(1), 14–29. doi:10.2458/v6i1.18772

Brocki, J. J. M., & Wearden, A. J. (2006). A critical evaluation of the use of interpretative phenomenological analysis (IPA) in health psychology. *Psychology & Health*, *21*(1), 87–108. doi:10.1080/14768320500230185

Chan, E. A., Lai, T., Wong, A., Ho, S., Chan, B., Stenberg, M., & Carlson, E. (2017). Nursing students' intercultural learning via internationalization at home: A qualitative descriptive study. *Nurse Education Today*, *52*, 34–39. doi:10.1016/j.nedt.2017.02.003 PMID:28229918

Chan, E. A., & Nyback, M. H. (2015). A virtual caravan—A metaphor for home internationalization through social media: A qualitative content analysis. *Nurse Education Today*, *35*(6), 828–832. doi:10.1016/j.nedt.2015.01.024 PMID:25717018

Crawford, I. (2021). Employer Perspectives on Virtual Working: Essential Skills for the Globalised, Digital Workplace. In S. Swartz (Ed.), *Developments in Virtual Learning Environments and the Global Workplace*. IGI Global.

Deardorff, D., & Jones, E. (2012). *Intercultural competence: An emerging focus in international higher education. In The SAGE handbook of international higher education*. Sage Publications.

Deardorff, D. K. (2009). Implementing intercultural competence assessment. In D. K. Deardoff (Ed.), *The SAGE handbook of intercultural competence* (pp. 477–491). Sage Publications.

Diamond, A., Walkley, L., Forbes, P., Hughes, T., & Sheen, J. (2011). *Global graduates into global leaders*. The Council for Industry and Higher Education and CFE Research and Consulting.

Essig, L. (2013). Frameworks for educating the artist of the future: teaching habits of mind for arts entrepreneurship. *Artivate: A Journal of Entrepreneurship in the Arts, 1*, 65-77.

Fogarty, P., Frantz, S., Hirschfeld, J., Keating, S., Lafont, E., Lufkin, B., Mishael, R., Ponnavolu, V., Savage, M., & Turitis, M. (2020). *Coronavirus: How the world of work may change forever.* BBC Worklife. https://www.bbc.com/worklife/article/20201023-coronavirus-how-will-the-pandemic-change-the-way-we-work

Fortune Global 500. (2019) *Fortune Global 500.* https://fortune.com/global500/2019/

Fowler, J. E. (2021). *Enhancing Global Learning and Intercultural Competence through VE/COIL: Lessons from the Field*. https://zoom.us/webinar/register/WN_hoIyVx5fT7OU6A-f_xC4VA

Freeman, M., Treleaven, L., Ramburuth, P., Leask, B., Caulfield, N., Simpson, L., & Sykes, C. (2009). Embedding the development of intercultural competence in business education. *Final Report CG6, 37*.

Garson, K. (2016). Reframing internationalization. *Canadian Journal of Higher Education*, *46*(2), 19–39. doi:10.47678/cjhe.v46i2.185272

Gibb, S. (2014). Soft Skills Assessment: Theory Development and the Research Agenda. *International Journal of Lifelong Education*, *33*(4), 455–471. doi:10.1080/02601370.2013.867546

Gorgônio, F. L., Vale, K. M. O., Silva, Y. K. N., & Silva, H. M. (2017, March 19-22). *Grouping students for cooperative and collaborative learning: Challenges and trends in virtual learning environments, 2*, 51-55. Paper presented at I IEEE World Engineering Education Conference. Retrieved from https://edunine.eu/edunine2017/proc/works/33.pdf

Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field Methods*, *18*(1), 59–82. doi:10.1177/1525822X05279903

Hammer, M. R., Bennett, M. J., & Wiseman, R. (2003). Measuring intercultural sensitivity: The intercultural development inventory. *International Journal of Intercultural Relations, 27*, 421 443.

Hanna, P. (2012). Using internet technologies (such as Skype) as a research medium: A research note. *Qualitative Research*, *12*(2), 239–242. doi:10.1177/1468794111426607

Harrison, N. (2015). Practice, problems and power in 'internationalisation at home': Critical reflections on recent research evidence. *Teaching in Higher Education*, *20*(4), 412–430. doi:10.1080/13562517.2 015.1022147

Herrington, T. (2008). The global classroom project: multiple relationships in global partnering. In D. Starke-Meyerring & M. Wilson (Eds.), *Designing globally networked learning environments: visionary partnerships, policies, and pedagogies* (pp. 37–51). Sense Publishers.

Hofstede, G. (1991). *Cultures and organizations: software of the mind, intercultural cooperation and its importance for survival*. McGraw-Hill.

IMF New Economy Forum. (2017). *The future of work: Special collection of essays for the IMF annual meetings.* https://issuu.com/medauras/docs/dc_imf_bookazine_lr

Kierkegaard, S. (1846). *Concluding Unscientific Postscript to Philosophical Fragments*. Copenhagen: University bookshop Reitzel.

Lapan, S. D., Quartaroli, M. T., & Riemer, F. J. (2012). *Qualitative research: an introduction to methods and designs*. Jossey-Bass.

Lewis, R. D. (2006). *When cultures collide. Leading across cultures*. Nicholas Brealey Publishing.

Molinsky, A. & Gundling, E. (2016, June). How to build trust on your cross-cultural team. *Harvard Business Review.* Retrieved from https://hbr.org/2016/06/how-to-build-trust-on-yourcross-cultural-team

O'Brien, W., Belton, S., & Issartel, J. (2016). Fundamental movement skill proficiency amongst adolescent youth. *Physical Education and Sport Pedagogy*, *21*(6), 557–571.

Packer, M. (2010). *The Science of Qualitative Research*. Cambridge University Press.

Parker, W. C., Ninomiya, A., & Cogan, J. (1999). Educating world citizens: Toward multinational curriculum development. *American Educational Research Journal*, *36*, 117–145.

Robles, M. (2012). Executive Perceptions of the Top 10 Soft Skills Needed in Today's Workplace. *Business and Professional Communication Quarterly*. doi:10.1177/1080569912460400

Roulston. (2010) Theoretical Considerations in Qualitative Interviewing. *The Qualitative Report, 15*(4), 1002-1005.

Soria, K. M., & Troisi, J. (2014). Internationalization at home alternatives to study abroad: Implications for students' development of global, international, and intercultural competencies. *Journal of Studies in International Education*, *18*, 261–280.

Starke-Meyerring, D. (2007, October 19). *Designing globally networked learning environments: visionary pedagogies, partnerships, and policies*. Keynote speech at SUNY Center for Online Collaborative Learning (COIL), Purchase, NY.

Starke-Meyerring, D., & Andrews, D. (2006, March). Building a shared virtual learning culture. *Business Communication Quarterly*, *69*, 25–49.

Starke-Meyerring, D., & Wilson, M. (Eds.). (2008). *Designing global network learning environments*. Sense Publishers.

SUNY Coil Center. (2019). *About COIL.* http://coil.suny.edu/page/about-coil-0

Swartz, S., Luck, S., Barbosa, B., & Crawford, I. (2019). (forthcoming). Building intercultural competence through virtual team collaboration across global classrooms. *Business and Professional Communication Quarterly*.

Tench, R., & Yeomans, L. (2017). *Exploring public relations: Global strategic communications*. Pearson Education Limited.

Tuckman, B. W., & Jenson, M. A. C. (1977). Stages of small-group development revisited. *Group & Organization Studies*, *2*, 419–427. https://doi.org/10.1177/105960117700200404

Utz, S. (2016). Is LinkedIn making you more successful? The informational benefits derived from public social media. *New Media & Society*, *18*, 2685–2702. https://doi.org/10.1177/1461444815604143

Watson, M. (2011). Using professional online portfolios to enhance student transition into the post-student world. *Business and Professional Communication Quarterly.* doi:10.1177/2329490618824703

World Bank. (2020). *World Bank:* https://www.worldbank.org/en/topic/smefinance

Zielezinski, M. B., & Darling-Hammond, L. (2016). *Promising practices: A literature review of technology use by underserved students*. Stanford Center for Opportunity Policy in Education.

ADDITIONAL READING

Arasaratnam, L. A. (2009). The Development of a New Instrument of Intercultural Communication Competence. *Journal of Intercultural Communication*, 20. http://www.immi.se/intercultural/

Baldassar, L., & McKenzie, L. (2016). Beyond "just being there" teaching iternationalization at home in two qualitative methods units. *Teaching Sociology*, *44*(2), 84–95. doi:10.1177/0092055X16631126

Belz, J. A., & Müller–Hartmann, A. (2003). Teachers as intercultural learners: Negotiating German–American telecollaboration along the institutional fault line. *Modern Language Journal*, *87*(1), 71–89. doi:10.1111/1540-4781.00179

Chen, G. M., & Starosta, W. J. (2000). The development and validation of the intercultural sensitivity scale. *Human Communication*, *3*, 1–15.

Cho, H., & Lee, J. S. (2008). Collaborative information seeking in intercultural computer-mediated communication groups: Testing the influence of social context using social network analysis. *Communication Research*, *35*(4), 548–573. doi:10.1177/0093650208315982

Crossman, J., & Bordia, S. (2012). Piecing the puzzle. *Journal of International Education in Business*, *5*(1), 71–78. doi:10.1108/18363261211261773

Helm, F., Guth, S., & Farrah, M. (2012). Promoting dialogue or hegemonic practice? Power issues in telecollaboration. *Language Learning & Technology*, *16*(2), 103–127.

Leask, B. (2016). *Internationalizing curriculum and learning for all students. Global and local internationalization, 49-53*. Sense Publishers.

Mylopoulos, J. (2021). Conceptual modeling and Telos1. In P. Loucopoulos & R. Zicari (Eds.), *Conceptual Modeling, Databases, and Case An integrated view of information systems development* (pp. 49–68). Wiley.

Okoro, E., Okoro, C., Washington, M. & Cardon, P. (2011). Eportfolios in business communication courses as tools for employment. *Business Communication Quarterly, 74*, 347-351.

Tucker, M. F., Bonial, R., Vanhove, A., & Kedharnath, U. (2014). Leading across cultures in the human age: An empirical investigation of intercultural competency among global leaders. *SpringerPlus*, *3*(1), 127. doi:10.1186/2193-1801-3-127 PMID:25674432

Ware, P. (2005). Missed" communication in online communication: Tensions in a German-American telecollaboration. *Language Learning & Technology*, *9*(2), 64–89.

Yoo, Y., & Alavi, M. (2001). Media and group cohesion: Relative influences on social presence, task participation, and group consensus. *Management Information Systems Quarterly*, *25*(3), 371–390. doi:10.2307/3250922

KEY TERMS AND DEFINITIONS

Collaborative Online International Learning (COIL): A group of students from different countries and institutions working collaboratively online on a shared project.

Curriculum Design: The pedagogy, structure, objectives, and activities associated with teaching and learning within educational establishments.

Digital Competence: The ability to use digital tools and applications successfully.

Ethical and Social Responsibility: The avoidance of harm to anyone or anything; making the world a better place.

Experiential Learning: Learning new knowledge and skills through direct experience rather than theory.

Graduate Employability: The extent to which students are employable after graduation.

Intercultural Competence: The ability to communicate and work with people from other countries successfully.

Transversal Skills: Universal skills which are valuable and useful in any workplace setting.

APPENDIX 1: INTERVIEW QUESTIONS

Section 1: COIL skill development and the workplace
To start with I would like to ask you a couple of brief questions about your line of work and your relationship with the university and COIL projects:

1. What is your current job and what does it involve?
2. What connections do you have to Robert Gordon University?
3. Have you ever taken part in a collaborative, online, international project at work, or at university, and what did it involve?

I am now going to ask you some questions about COIL skill development and how this relates to the workplace.

4. What kind of transferable (non-academic, 'soft') skills are important in the workplace and why?
5. Do you think a COIL project could help to develop these skills?
6. What kind of challenges do you think a COIL project might involve? *(Prompt: e.g. lack of personal contact and social bonding; unclear goals and roles; lack of understanding, communication and feedback; conflicting time zones and work schedules; cultural and language differences; lack of technological competence and confidence (Hertel et al)?)*
7. What do you think intercultural competency is, and how important is it in the workplace?
8. What type of virtual, collaborative platforms are used in your workplace and what kind of skills do they require?
9. How important is Individual Virtual Competence (IVC) in the workplace? This can be defined as computer and remote working self-efficacy, virtual media skills and virtual social skills *(Wang & Haggerty, 2011)?*
10. Will any of the skills discussed so far become more, or less, important in the workplace in one year, five years, ten years?
11. What is your assessment of recent graduates' grasp of these skills currently? Please explain your answer and give anonymised examples if possible.
12. How should universities respond to the evolving needs of the workplace in relation to these skill areas?

Section 2: Sample COIL activity design and relevance
Please have a look at the activity provided, and when you are ready, I will ask you some questions about it.

13. Does the activity reflect a real world, work-based scenario - please explain?
14. Is the activity likely to develop the range of skills previously discussed - please explain?
15. The Association of American Colleges and Universities identifies the following six skills as central to effective global learning. How far does the sample activity develop each one?
    A. Global self-awareness
        Effectively addresses significant issues in the natural and human world based on articulating one's identity in a global context.

B. Perspective Taking

Evaluates and applies diverse perspectives to complex subjects within natural and human systems in the face of multiple and even conflicting positions (i.e. cultural, disciplinary, and ethical.)

C. Cultural Diversity

Adapts and applies a deep understanding of multiple worldviews, experiences, and power structures while initiating meaningful interaction with other cultures to address significant global problems

D. Personal and Social Responsibility

Takes informed and responsible action to address ethical, social, and environmental challenges in global systems and evaluates the local and broader consequences of individual and collective interventions.

E. Understanding Global Systems

Uses deep knowledge of the historic and contemporary role and differential effects of human organizations and actions on global systems to develop and advocate for informed, appropriate action to solve complex problems in the human and natural worlds.

F. Applying Knowledge to Contemporary Global Contexts

Applies knowledge and skills to implement sophisticated, appropriate, and workable solutions to address complex global problems using interdisciplinary perspectives independently or with others

16. How would you improve the activity to make it have a more positive impact for students and employers?

17. Is this type of activity something that universities should be doing more of within their courses - please explain?

APPENDIX 2: PARTICIPANT CODES

P1: Female, UK, Public Sector, Senior Role (Communications Manager), university alumni (06.03.20)

P2: Female, UK, Public Sector, Senior Role (Enterprise Program Director), university partner (09.03.20)

P3: Male, UK, Charitable Sector, Junior Role (Communications Officer), COIL alumni (13.03.20)

P4: Male, UK, Private Sector, Senior Role (Head of Production), university partner (19.03.20)

P5: Male, UK, Public Sector, Junior Role (Multimedia Broadcast Journalist), COIL alumni (20.03.20)

P6: Male, UK, Private Sector, Senior Role (Senior Financial Engineer), COIL alumni (23.03.20) – *Day 1 UK Lockdown*

P7: Male, UK, Charitable Sector, Junior-Middle Role (Team Leader), university alumni (06.05.20)

P8: Male, USA, Public Sector, Senior Role (Depute Chief), COIL alumni (07.05.20)

P9: Female, UK, Private Sector, Junior-Middle Role (Digital Account Manager), university alumni (22.05.20)

P10: Male, USA, Public Sector, Senior Role (Judiciary), university partner (28.05.20)

P11: Male, Germany, Private Sector (part public), Senior Role (Managing Partner), no direct university connection (28.05.20)

P12: Male, Germany, Private Sector, Junior Role (Advertising Account Executive), university alumni (03.06.20)