The utility of case study as a methodology for work-integrated learning research

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Work-integrated learning (WIL) research is heavily steeped in particular contexts making it highly suited to flexible, multiple perspective methodologies, such as case study. However, case study methodology is often criticized for being too specific, not generalizable and limited in what it can contribute to theory. In addition, there is often confusion between the meaning and application of the terms method and methodology. This paper presents an argument to help guide and support researchers who are considering a case study approach to their WIL research. Two vignettes demonstrate how researchers overcame some of the alleged limitations of case study as a methodology and utilized the benefits to advance the theory and practice of WIL. Case study provides a sound methodology that can reflect the variability of research contexts and enables a flexible approach to address a wide range of research questions that are relevant to the evolving nature of WIL.

Keywords: Case study, higher education, work-integrated learning, qualitative research

A substantive amount of work-integrated learning (WIL) research published in the literature is based on case studies where academics address problems or interventions related to WIL within their own contexts. However, it is not uncommon for case study research to be criticised for being too specific to a particular practice and limited in what it can contribute to theory. The arguments presented in this paper will address some of these concerns and advocate for case study being framed as a sound methodology for use in WIL research.

Initially this paper will examine the philosophy of case study as a methodology rather than as a research method. The advantages and challenges of using case study methodology in different research paradigms will be considered and key criticisms and concerns critiqued. Two vignettes are presented that illustrate how case study methodology can be used in WIL research.

CASE STUDY AS A METHODOLOGY

At its core, research centralizes around a systematic, balanced enquiry. However, the principle set of beliefs which will inform and guide this enquiry continue to be contested, particularly in regards to research in the realms of education and social sciences (Waring, 2012). While the qualitative case study is very popular in these research realms, deliberation continues as to whether case study is indeed a research method, or rather, a methodological approach (Pearson, Albon, & Hubball, 2015).

It has been observed, especially with novice researchers, that confusion between the terms method and methodology consistently occurs (Baxter & Jack, 2008; Miles, 2015). Methodology commonly refers to the frame of reference in which the method of inquiry is based on and is typically subjected to a specific set of guiding principles. It provides the justification for using a particular research method. Guba and Lincoln (1989) define methodology as the "overall strategy for resolving the complete set of choices and options available to the inquirer" (p. 183). Whereas, a research method describes in detail the most suitable way for data to be collected and analyzed within the context of the study, for example, survey

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or interview (Gratton & Jones, 2010). Specifically, in reference to case studies; case study as a method examines particular 'cases' including individuals and events. Case study as a methodology explores and critiques a phenomenon in context (i.e. bound) using multiple data sources and collection methods (Baxter & Jack, 2008). Presently there is heterogeneity in how the qualitative case study is referred to in current literature (Hyett, Kenny, & Dickson-Swift, 2014). It is possible that as a conceptual definition qualitative case studies could potentially be both a method and a methodology, depending on the underpinning philosophy.

A number of philosophical approaches are cited in case study literature (George & Bennett, 2005; Merriam, 2009; Stake, 1995, 2005; Thomas, 2011; Yin, 2009, 2013) with those from Robert Stake (1995) and Robert Yin (2013) referred to extensively. It is important to note that both Stake and Yin base their approach on the same constructivist paradigm. Constructivism suggests that learning is an active process constructed from knowledge of experiences and is subjective to the representations of one's personal reality (Stake, 2010). One of the positives of this paradigm is that the view is participant lead, in addition to promoting collaboration between researcher and participant. Despite being built on a constructivism paradigm, Stake and Yin's approaches employ their own distinct strategies.

Stake (1995) recognizes the popularity of case studies in qualitative inquiry but argues that they are not 'essentially qualitative' or a methodology; rather they are delineated by the specific cases themselves. Stake specifically defines three types of case study as intrinsic, instrumental, and collective. An intrinsic case study is when the aim is fundamentally to understand the case. An instrumental case study aims to provides insight into an issue or refine a theory in which the case itself here is secondary and might be atypical of other cases. A collective case study explores differences within and between cases ideally to replicate findings across them.

Yin (2013) strongly advocates for the power of a case study as a methodology. In particular Yin acknowledges the strength of a case study to not only answer the '*what'* research question but also to explore '*why'* and '*how'*. Yin categorizes case studies as explanatory, exploratory or descriptive. An explanatory case study would ideally be used when seeking to explore causal links that are too complex for survey or experimental strategies. Exploratory case studies explore situations in which the case (intervention for example) being evaluated has no clear or single set of outcomes. According to Yin a descriptive case aims to describe the phenomenon within the context it occurred. Yin also distinguishes between single, holistic case studies and multiple-case studies. A single case study is in essence a stand alone case. A holistic case study also referred to a single case with embedded units allows the researcher to explore other potential influencers or sub-units within the case. Whereas multiple case studies are similar to Stakes collective case study in that the researcher can delve into dissimilarities both within and between cases i.e. not just one case as in a holistic case study.

Advantages and Disadvantages of Case Study

Irrespective of the *type* of case study, it is clear that case study provides the researcher with the ability to explore a phenomenon through "a variety of lenses". This multi-perspective approach is crucial for a very in-depth and comprehensive understanding of 'objects', such as WIL, as well as to a range of real-life situations (Baxter & Jack, 2008; Miles, 2015; Pearson et al., 2015). Case study also has the flexibility to delve into and unpack more complex experiences and circumstances which may not have a specific or singular outcome. In addition, mixed method research is emerging as a popular research approach, for much of the afore mentioned benefits, and the case study can indeed provide a rich, multi-layered data set consistent with more quantitative methodology (Franz, Worrell, & Vögele, 2013).

It has recently been suggested that the lines between case study and mixed methods research are *permeable* (Carolan, Forbat, & Smith, 2016).

Despite clear virtues, there are some key challenges to using case study methodology, which need to be critiqued. It has been well cited that a short coming to case study research is generalizability; or more specifically the lack of valid generalization (Miles, 2015; Thomas, 2011). As it is highly probable that each 'case' is unique, the lack of a typical research question is an important consideration. Moreover, researchers run the risk of making generalizations above and beyond the amassed evidence. This risk highlights the importance for clear binding of each case, in addition to reliable analytical techniques to ensure robustness of case study methodology. It is also worth noting that there is the argument for an absence of generalizability across the board in education and social science, not just a short coming of case study research (Thomas, 2011). Consequently, these challenges are worth considering across all qualitative research practices.

It is apparent that a significant issue limiting the understanding of case study research is the variability of its conceptual definition as either a method or a methodology. Overall case study as a methodology provides researchers with the ability for a flexible, in-depth and multi-perspective research approach aligning with the growing trend in the use of mixed methods. However, case study has been criticized for its robustness and absence of generalizability. The following vignettes will demonstrate the capability of case study methodology and how these limitations can be overcome in WIL research.

VIGNETTE 1: EXPLORING STAKEHOLDERS' PERSPECTIVES OF COOPERATIVE EDUCATION IN SPORT TERTIARY EDUCATION

In order to understand complex social situations, you either have to experience it yourself or learn from the experiences of others (Harland, 2014). In the example presented here the researcher used case study methodology to gain the perspectives of key stakeholders (students, workplace supervisors and university academic supervisors) in order to understand more about a specific case - a cooperative education program undertaken within an undergraduate sport and recreation degree. Although the program had been in place for over 15 years there was a lack of depth in what was known about the alignment of intentions and expectations across stakeholders and 'what and how' students learnt through their experience.

Consistent with good practice in case study research, multiple forms of data were collected. Initially a questionnaire was used to gain perspectives about cooperative education from students who had recently completed their placements, workplace supervisors and academic supervisor. The majority of the questions were open ended to allow for the participants to express their own views. After the analysis of the questionnaire, key areas were identified that needed to be explored in more depth. Semi-structured interviews were then conducted with students, workplace supervisor, and academic supervisors. Document analysis of course material and resources given to students and workplace supervisors was also undertaken.

The case study approach enabled the researcher to learn from the participants, as through the research they described and made sense of their own experiences of cooperative education. The researcher gained multiple perspectives of what the participants understood the intentions of cooperative education to be and what the term cooperative education meant to them. Consistent with qualitative inquiry, it was not necessary to try and aggregate the views (as you would in some research methodologies) but be able to acknowledge that differences in interpretation existed. In discussion of the findings, the intentions of cooperative education as being to enhance employability were challenged

as not being cognisant of the wider mandate for university education. University students should not be just 'work-ready', but 'future ready' for careers that may not yet exist. This illustrates the potential of case study research to move beyond descriptions of practice and to take a critical stance.

Through applying educational theory (more specifically, sociocultural theory) to the specific experiences that the participants described, the researcher was able to gain an insight into *how* students learnt in cooperative education and the factors that were likely to have influenced *what* they learnt (Fleming, 2015). This case study illustrates an example of taking existing theory and using it to create 'case-based knowledge' in a different context from where the original theory was developed. Although the findings and knowledge related to the specific context being researched it is likely that readers of this work would be able to integrate this case-based knowledge and perspectives to help them understand (and possibly improve) the student learning experiences in their own WIL context.

An advantage of using a case study approach for this research was that multiple methods of data collection were possible and the design enabled the researcher to be responsive to exploring new areas as they emerged. As a result of the questionnaire analysis, it became clear that it was important to know more about the nature of the tripartite relationships that are fundamental to the structure of cooperative education. This had not originally been a specific focus of the questionnaire. Interview participants were asked to describe (and also draw) how they perceived the relationships. Workplace supervisors were also asked to explain why they decided to take on a student and what their expectations were. It is suggested that case study research is enhanced if existing theories can be integrated into the findings (Harland, 2014). The data analysis for this part of the research had to draw on theories outside of the educational literature. Network analysis techniques were used to make sense of the relationships drawn and network theory was applied to help understand the relationships (Fleming, 2013). A framework developed for inter-organisational relationships in sport (Babiak, 2007) was used initially to analyse the motivations for workplaces to be part of the cooperative education programme. While this framework was a good starting point, a revised framework relevant to WIL relationships was proposed as a result of this case study research (Fleming & Hickey, 2013).

This case study has illustrated the strength of being able to utilise theory from one discipline and apply it to another and has also shown that it is possible for a case study to provide new contributions to existing theory.

VIGNETTE 2: EXPLORING CRITICAL REFLECTION IN COOPERATIVE EDUCATION: A CASE STUDY.

The primary motivation to undertake this particular research arose as a consequence of the researchers' direct involvement in a number of activities related to critical reflection in a sport and recreation cooperative education program (co-op). These activities included: assessing students' reflective journals; one-on-one or group conversations about critical reflection with students and academic supervisors; and reviewing student feedback of the paper at the completion of their co-op papers. Through reflecting on the student related activities and ongoing observations, the researcher concluded that some students had limited understanding of the value and purpose of critical reflection as a learning tool to be utilised throughout their compulsory year-long co-op program. These perceptions of this issue initially prompted this research intention towards trying to improve student understanding and practice of critical reflection, through a participatory action research approach. However, it quickly became apparent that before improvements could be initiated a closer examination

of the issue was required. The necessity to understand the issue in depth, in this particular setting (which in itself was complex) made case study methodology an appropriate option for this research.

As described above, when the researcher is situated within a particular context it can bring to light an issue that warrants in depth examination. Such issues may not be so apparent to those looking in from the outside. According to Stake (1995), a particular case (often bound by time, place and people) must first be understood before a study of the issue can begin, giving the insider a distinct advantage of already knowing many of the nuances of the case under examination. In this case the nuances were carefully considered as the research was planned and executed, especially the implications that researching from inside had on ethical requirements, such as participant recruitment.

The insider researcher may have a vested interest in embarking on the study, therefore must be careful not to allow personal bias and anticipated outcomes to unduly influence the research process and product. In this case, a deeper understanding of the phenomenon could help shape the future pedagogical practices of the co-op program. The subjective nature of this case study was reliant on, yet strengthened, by the researcher being well versed in the intricacies of the case being explored. Conversely, an outsider may be more objective due to being distanced to the case, although this might lead to limited understandings, and interpretations.

Carolan, Forbat, and Smith (2016) recommend case study researchers "explicitly state their informing philosophical approach, their positioning of 'self', and the ethical dimensions of the research" (p. 630). At the outset of this research the researcher clearly stated an alignment with John Dewey's pragmatic philosophy, especially highlighting the constructivist views espoused within his education and reflective thinking writings. The researcher was identified as an insider researcher; therefore, it was important to acknowledge this as a characteristic of the research product – the case study.

Qualitative case study research typically relies on gathering of data using a variety of collection methods, which in this case included; a questionnaire, reflective journals and reports, semi-structured interviews and program documents. This practice generated large amounts of data requiring careful management and analysis systems to prevent the researcher from becoming lost in, or over whelmed by the data. With large volumes of data to draw upon the case study researcher has the capacity to explore the issue in depth and promote data credibility (Baxter & Jack, 2008). At the completion of data collection, it was inspected several times for familiarisation, then reviewed against the initial research proposal to ensure a smooth transition forward into data presentation, analysis and interpretation. This proved to be a crucial step in the research as the data lent itself to being presented in a particular way that gave strength to the student voices and highlighted the uniqueness of the learners' experiences.

The context of this case study was complex, making it difficult to predict at the beginning how the data could best be presented, as it was not constrained by very strict protocols (Miles, 2015). Case study methodology offered the flexibility and openness to allow for a variation in how the data was presented. Instead of presenting a set of thematic findings, research narrative representations were constructed based on student reflective journals and interview data. This form of data representation enabled the student voice to be robust throughout the research as there was strong evidence of the students telling their stories. The previously approved ethics (AUTEC ethics approval number 12/214 and DUHREC ethics approval number 2012-269) needed slight amendments and this was approved by letter and attached to the original documents. Stake (1995) states "each researcher needs, through experience and reflection, to find the forms of analysis [and data representation] that work for him or her" (p. 77), and the nature of the research being undertaken. Overall, the data in this case study was

presented in an authentic way that aligned well with the philosophy of cooperative education as being a student centred learning approach and afforded the reader the opportunity to vicariously experience the students learning journeys.

Stake (1995) argues the purpose of a case study is not to intentionally build theory, although it may become an option through a genuine interest in understanding the case. During the analysis phase of this case study, the data transformed over time from making relatively little sense to increasing clarity and meaning as it became more familiar. This was no straight forward process. Through this process a new conceptual model was developed that dynamically positioned critical reflection within a cooperative education framework and illustrated how it works in this context. Existing theory was used to inform the development of this model, demonstrating how new theory could be derived from closely examining a particular context. This case study was used to examine and generate theory.

SUMMARY

Work-integrated learning (WIL) research is often characterised by three influencing factors including; the principles of a particular WIL typology (cooperative education, service learning, internships to name but a few), a group of students studying a specific discipline area and the variability of each workplace setting. The diversity of the WIL context makes case study research a suitable methodology for this field (Coll & Chapman, 2000; Linn, Howard, & Miller, 2004). As demonstrated by the two vignettes, case study methodology requires the portrayal of a strong understanding of the contextual arrangements in order to examine an issue that exists within the particular context. A key strength of case study is that it provides rich detail of the context allowing the reader to draw similarities and differences to their own setting (Atkins & Wallace, 2012; Flyvbjerg, 2006). While the focus of this paper is to examine the use of case study methodology in a WIL context it is important to acknowledge other forms of contextually driven research methodologies exist, these include ethnography, action research and action learning. However, examining these approaches goes beyond the scope of the paper.

This paper presents two vignettes demonstrating how case study methodology was used to explore different phenomena (tripartite relationships versus pedagogical processes), employed a range of data collection methods, allowed flexible data representation and drew upon existing theoretical underpinnings. Researchers in the field of WIL might make use of these examples as they consider the possibilities of methodological choices for their current and future research projects. As illustrated by the vignettes, case study research has the capacity to provide meaningful outcomes for the group within which the study was undertaken, and beyond. The meaningfulness of the research must be tangible to the key stakeholders (Costley & Armsby, 2007). From the outcomes of a case study it is possible for the stakeholders to gain new understandings of the in-situ issue or intervention, and for theories to advance into new domains or emerge that are critical, reflective and innovative.

Case study methodology frequently takes advantage of the researchers' degree of insiderness. Walsham (2006) explains insiderness as being "good for in depth access to people, issues and data" (p. 321). Although insiders are able to draw heavily on their own experiences in their field or discipline, they must also be mindful of any lack of impartiality that they bring to their research, thus requiring the ability of the researcher to critique and reflect on their research practices. This is also true of many qualitative research methodologies. An important and positive benefit of case study research is the researchers' capacity to contribute directly back to the data collection site, as well as, to the advancement of literary knowledge in the particular discipline and WIL context. This is especially true

if the study brings to light something where change might be worthwhile for improving practice and relevance in the particular context.

Qualitative research is steeped in exploring phenomena through one lens or multiple lenses chosen from a vast array of theorists. This can be extremely overwhelming for the novice researcher who has yet to clearly identify their approach to research (epistemology and ontology). Choosing a theorist usually comes about through the researchers' experiences, background, interests, and preferences, although a novice researcher may choose, or be expected, to follow the lead of a supervisory panel. However, it is important for the researcher to feel comfortable with the theoretical underpinnings of their research and how it will align with the purpose of their study. They must be able to clearly identify the boundaries and expectations imposed by the approach chosen for their research, as failure to do so may result in complications further along the research process. For example, problems with justification of certain practices, difficulties when crafting journal articles that require clear articulation of methodologies and methods employed, and lack of consistency throughout all aspects of a significant body of work, as is required for a PhD. The vignettes demonstrate how one case study was underpinned entirely by one theorist, while the other drew upon a number of relevant theories and theorists. Case study allows the researcher to explore theories and theorists that are both well suited to the research question and the researchers' preferences and leanings.

An increasing number of universities, both locally and globally, are promoting WIL as a crucial part of their strategic plans, as this approach is one that can satisfy government and stakeholders (industry, parents and students) need for work-ready, future-ready graduates. Consequently, the diversity of WIL contexts is likely to continue to grow and expand. In addition, as the nature of work and the workplace continues to evolve the requirement to explore new and emerging approaches to WIL will also increase. Walsham (2006) states, "the individual researcher or research team must make their own choices in light of their own context, preferences, opportunities and constraints" (p. 321). We encourage novice, and seasoned researchers alike, to look carefully at their choice of research design and to consider case study as a methodology (not method) that provides a flexible, multiple perspective research approach.

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