Research Paradigm and Philosophies Swept Under the Carpet: A Summative Content Analysis

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Abstract: Research methodology, paradigms and philosophies are considered important frameworks to guide all research. However, the nature and connections between methodologies and philosophical applications are relatively unexplored. There is no systematic attempt to draw out in great detail the practical implications of the disparity between the importance of philosophies and paradigms, on the one hand, for conducting research, and their application, on the other hand. A qualitative summative content analysis explores the extent of the application based on 225 articles, representing three broad academic fields. The practical implication of the disparity between theory and practice at a post-graduate level is drawn.

Keywords: research paradigms, philosophical application, research methods

1. Introduction

It is widely recognised by different scholars that different types of research are based on systematic scientific methodology (Saunders, Lewis, & Thornhill, 2012; Bryman & Bell, 2011; Zikmund, Babin, Carr, & Griffin, 2013), and on different sets of paradigms and philosophies, also known as worldview or set of beliefs (Guba & Lincoln, 1994; Seale, 1999; Saunders et al., 2012; Killam, 2013). Advocates of research methodology and paradigms (Killam, 2013; Guba & Lincoln, 1994; Saunders et al., 2012; Parahoo, 2006; Polit & Beck, 2008; Steen & Roberts, 2011) attest that to understand research, one must examine the methodology of the study and philosophies that underpins researchers' paradigms. This is because knowledge is not neutral (Habermas, 1972), and all researchers' have deeply embedded world views and inherent preferences that affect knowledge production and shape research designs (James & Vinnicombe, 2002; Volbers, 2009; Kuhn, 1970; Habermas, 1972; Jensen, 2000).

Yet, it is unclear whether researchers include their research methodology, paradigms and philosophies in the research papers published. Creswell and Clark (2007) note that 'some' researchers make their world views explicit by discussing them in their research; others recognize their presence but do not actively discuss them in their research'. Based on this view, the question arises: How can research be understood when the research paradigms and philosophies are not presented or acknowledged in most articles? Especially, since some scholars (Johnson & Onwuegbuzie, 2004; Guba & Lincoln, 1994; Saunders et al., 2012; Bryman, 1984; Becker, 1996) suggest that both qualitative and quantitative methods may be used with any research paradigm and consider the association thereof as a secondary matter to research methods, making it difficult to predict the scholars' epistemological stances from the basic methodology described. Unless, of course, the authors of all those articles without research paradigms and philosophies belong to the school of thought that research paradigms and philosophies are primary to research methods (Parahoo, 2006; Polit & Beck, 2008; Steen & Roberts, 2011).

Even so, there is more than one research paradigm and philosophy with differing implications that can be linked to one or more research approaches, so one cannot simply presume and assume associations to qualitative, quantitative or mixed methods.

Within the literature reviewed, fundamental differences exist on the actual references pertaining to types of paradigms vis-a-vis philosophies, approaches and strategies. Some scholars' references of types of paradigms include positivism, critical theory and interpretivism (Lincoln & Guba, 1994; Mackenzie & Knipe, 2006), qualitative and quantitative (Cluett & Bluff, 2006), and axiology or values (axios), epistemology or knowledge (episteme), ontology or reality (ontologia), and doxology or belief (doxa) (Killam 2013). Other researchers consider philosophies such as positivism, critical theory (Seale 1999; Saunders et al., 2012; Newman & Benz, 1998), epistemology and ontology (Guarino 1998; Bryman 1984). On the same basis as Killam (2013), this paper understands that the terms mentioned above are often debated, described, interpreted and referenced in numerous 'correct' ways. Therefore, in this paper ontology, epistemology, axiology, and doxology are paradigms; hence types of philosophies include, but are not limited, to pragmatism, critical theory, positivism, interpretivism, strategist and reductionism. This paper investigates several research articles in various research fields to determine whether researchers include their methodology, paradigms and/or philosophies in their

papers. The aims of this paper are, firstly, to draw out the disparity between the importance of philosophies and paradigms, on the one hand, for conducting research, and their application, on the other hand. Secondly, to draw out in great detail the practical implications of the latter to teaching and learning at Masters and PhD levels. The paper commences with the theoretical background, followed by the importance of research methods, philosophies, and paradigms with specific attention to its common views in shaping all types of research. The aim is not to dwell on the differences of whether research paradigm and philosophies are secondary or primary to methods but, rather, to focus on theory with relative to practice. As this demonstration, serve as a necessity, given the practical implication of the latter to masters and PhD students. Hereafter, the background is explained and the findings and discussion of findings follow.

2. Background: Relevance and application to research

A careful exploration of scientific paradigms and their relations to theory (theorists) that guided thought and knowledge development is necessary so that a clear identity in the broader discipline is established. Philosophies and paradigms can be explored within the guidelines of some of the major knowledge development theorist, amongst others, John Locke, David Hume, Rene Descarte, Immanuel, Kant, and Hans Reichenback (Rosenberg, 2000; Bunge, 2009). Taking rationalist and empiricist as default examples in this context, the two philosophical views brings forth two different school of thoughts. One that is pioneered by John Locke and supported by David Hulme points towards knowledge development from experience, hence rationalist differs, and advocates for knowledge gained through reasoning and logic such as those in mathematical disciplines. Although different, the relevance of research paradigms and philosophies as guides and framework for research culminate from these latter theorists. Much of these theoretical backgrounds are discussed greatly by studies on philosophy of science and research methods (Theunissen, 2014; Miller & Grimwood, 2015; Rosenberg, 2000; Denzin & Lincoln, 2003; Patton, 1982; Saunders et al., 2012; Killam, 2013; Lincoln, 1990).

Viewed together, their central contention is that philosophy is a fundamental prerequisite for understanding studies of all science, including its methodology. Looked at differently, science and philosophy are inextricably inquiries; where philosophy focus on logic, nature and extent of justification of knowledge, and science focuses on the reliability of logical reasoning (deductive), and finite bodies of data to general theories (inductive sciences). That is philosophy is indispensable for understanding science and vise-a-versa. It is for the indispensable nature of philosophy and science, that philosophy and paradigms are divided into two broad roles that include, but not limited to: (1) guiding researchers in choices of methods, and (2) frameworks that reflect the basis on which research is conducted (discussed below).

2.1 Research paradigm and philosophies as guides to choices of methods

The guiding thread of research paradigm and philosophies to choices of methods stems from the role of 'episteme' or knowledge and ontologia as inner cognitive state that is connected to observations, experiments, abstracts, narratives, interpretations of experiences and conceptualised practice (case studies). The latter guiding thread becomes the basis on which reality is measured and research variables are validated (Jensen, 2000; Guarino, 1998; Bryman, 1984). Wahyuni (2012) states that many research scholars, including but not limited to: Creswell (2013); and Saunders et al., 2012, (2009), emphasise that it is important initially to question the research paradigm to be applied in conducting research because it substantially influences how one undertakes a social study from the way of framing and understanding social phenomena. Although presenting from an ontological perspective of computer science, Guarino (1998) emphasises strongly the methodological and architectural peculiarities associated with philosophies from a high interdisciplinary approach that play a role in analysing the structure of a given reality and in formulating a clear and rigorous vocabulary. Put differently, the former connection and latter views is what scholars (Killam, 2013; Newman & Benz, 1998; Blaikie, 2000), consider as guides to choices of methods which influence design and the conclusions drawn from the research. These guides to choices of methods are consistent with methods described by many research advocates (Svivasta & Rego, 2011; Saunders et al., 2012; Sekaran & Bougie, 2010). The importance and relevance of research paradigm and philosophies is discussed by several scholars (Blaikie, 2000; Hatch & Cunliffe, 2006; Guarino, 1998); emphasising strongly how paradigms encourage academics to observe the same phenomena in different ways and, subsequently, to derive different kinds of knowledge from different philosophical perspectives. Further implications of paradigm and philosophies to research are offered by Guba and Lincoln (1994) and include an outline of the nature of knowledge, knowledge accumulation, and quality of criteria, values, ethics, the voice of a researcher, training and accommodation with relative to the practical conduct of inquiry and interpretations of findings. Against this background, Becker (1996) believes that 'a lot of energy is

wasted hashing over philosophical details, which often have little or nothing to do with what researchers actually do'. Counter to Bercker's (1996) view, opposing studies warn that if these underlying paradigms and philosophies are taken for granted, not identified or discussed; issues of bias and implicit assumptions to certain aspects of the inquiry or phenomena are prevalent (Blaikie, 2000; Hatch & Cunliffe, 2006). Making it difficult to question, consider and discuss the findings and views of such research. The question therefore is how different streams of knowledge can flow and continue to be derived from the same phenomena in cases where paradigms and philosophies are less considered. Unless, of course, recent scholars can derive different streams from the same phenomena independent of paradigms and philosophies; and if so, what are the implications of research paradigm and philosophies given such independence in the 21st century? It is an issue similar to that raised by Morgan and Smircich (1980), of whether or not researchers can manufacture any form of knowledge that is independent of subjective construction, since the researchers are the agents through whom knowledge is perceived or experienced.

2.2 Research paradigm and philosophies as frameworks for research

The application of knowledge or 'episteme' produced within the framework of research dates back to the second century BC, where Euclid's elements and Plato's empirical research concept of knowledge set the platform for general, logical and practical applications that lead to what constitute theoretical knowledge with the aid of objective procedures and evidence (Jensen, 2000; Fuchs, 2005). The view of 'epstime', 'axios', 'ontologia', and 'doxa' in research grew in the 13th century with the creation of some of the world's best university including, but not limited to Bologna, Paris and Oxford (Jensen, 2000). Since the initial offering of paradigm and philosophies as frameworks by Euclid and Plato (Jensen, 2000), several scholars continue to offer different views of paradigms and philosophies as frameworks for research (Killam, 2013; Denzin & Lincoln, 2003; Patton, 1982). Whilst Denzin and Lincoln's (2003) view is that of 'interpretive framework'; Patton (1982) refers to paradigm as frameworks for thinking about research design, measurement, analysis, and personal involvement. Morgan (2007) extends the view of framework as shared belief systems that influence the kinds of knowledge that researchers seek and how the evidence collected is interpreted. Hence, Killam's (2013) framework uses the analogy of 'coloured glass lenses' that direct everything in research. The emphasis put forth by the latter scholar is that research can be viewed differently, depending on the 'colour of glass lenses' one is wearing, that is ontological: epistemological or axiological stances and associated philosophies.

Therefore, to minimise bias and understand the position of such knowledge in research, others needs to understand the epistemological, ontological, axiological stances and associated philosophies adopted. In supporting view, Morgan (2007) indicates that the examination of issues raised by qualitative, quantitative or mixed methods approach must start with the dominant paradigm, rather than assessing the approach on its own. This is because the implications presented by particular approach are dependent to researchers' pre-existing commitments to their beliefs and practices. Therefore, evaluation of research issues has to be considered within the researchers' paradigm and philosophical stance. Similarly, Lincoln (1990) attests that the pervasive effects of paradigms permeate every aspect of research inquiry. Whilst the latter scholars' framework perspective implies that paradigm and philosophies are the 'veins' through which research flows; Seale (1999) encourages social researchers to 'break 'free' from the obligation to fulfil philosophical schemes through research practice, while remaining aware of the value of philosophical and political reflexivity for their craft'. In other words, Seale's (1999) 'break-free' perspective is different from that of 'no knowledge is neutral' of Habermas (1972), and risk being interpreted as if all social sciences hold a single or neutral philosophical view.

If the scholarly field and journal editorial bodies are engaged in knowledge production, but without acknowledging the paradigm and philosophies that underlies that particular knowledge, one wonders what evolution of knowledge production is emerging from these practices. What is the relevance of paradigm and philosophies in teaching and learning if practice is not necessary or does not contribute much to knowledge re-production?

3. Methodology

From a critical realist epistemological stance, this paper reviewed 225 articles using a summative content analysis approach. Hsieh and Shannon (2005) explain that 'a study using a summative approach to qualitative content analysis starts with identifying and quantifying certain words or content in text with the purpose of understanding the contextual use of the words or content. This quantification is an attempt not to infer meaning but, rather, to explore usage'. This approach seems quantitative in the early stages, but its goal is to explore the

usage of the words/indicators in an inductive manner (Zhang & Wildemuth, 2009). In this paper, a critically analysis is conducted to identify whether the research articles included the following words or context: "methodology"; "research design"; "research approach"; "paradigm"; "philosophy"; "qualitative"; "quantitative", "experiment", "case study", "archival"; "ethnography", "survey", and "action research". Several journals were selected from broad major academic fields of Education, Health Sciences and the Social Sciences. Furthermore, 15 sub-disciplines were included, namely, from Education: child education, education management, education psychology, human education, and mathematical sciences. In the Health Sciences, the sub-disciplines are: anatomy, dentistry, neurology, radiology, and surgery. The Social Sciences' sub-disciplines include: business management, economics, finance, human resources and marketing. The aim of this broad selection is to demonstrate explicitly the argument of relevance and its implication for teaching and learning on the basis of application of research, paradigm and philosophies in top journals across several disciplines. The academic fields that were reviewed are presented in Table 1. The years 2000 and 2007 were used as benchmark comparison periods against which 2014 articles could be examined. For all three years, all articles were coded that employed research paradigm, philosophy and/or methodology words. Refer to Table 1 for main fields of study and their respective subfields (25 articles per respective year, totalling 75 articles for each main field of study).

Table 1: Academic sub-fields reviewed

Main Field of Study			Year of Publication			Total
			2014	2007	2007	
Social Sciences	Sub-Field of study	Business Management	5	5	5	15
		Economics	5	5	5	15
		Human Resources	5	5	5	15
		Finance	5	5	5	15
		Marketing	5	5	5	15
	Total		25	25	25	75
Education	Sub-field of study	Maths Science	5	5	5	15
		Education Management	5	5	5	15
		Education Psychology	5	5	5	15
		Child Education	5	5	5	15
		Human Education	5	5	5	15
	Total		25	25	25	75
Health Sciences	Sub-field of study	Dentistry	5	5	5	15
		Neurology	5	5	5	15
		Radiology	5	5	5	15
		Surgery	5	5	5	15
		Anatomy	5	5	5	15
	Total		25	25	25	75
Total			75	75	75	225

3.1 Sampling

Following global universities classification of sub-disciplines framework, the study randomly selected 225 published articles from top International Scientific Indexing (ISI) journals. The ISI/Web of Science journals represent a pool of global academic scholars and are considered the cream of the scholarly field. From each sub-discipline, a total of 15 articles were randomly selected, five each from the years: 2000, 2007, and 2014 respectively. The list of ISI/Web of Science Journals from which articles were randomly sampled are: *Journal of Management Studies (JMS), Cambridge Journal of Economics (CJE), Human Resource Management Journal, Abacus-A Journal of Accounting Finance and Business Studies, Journal of Business and Industrial Marketing, Journal of Research in Mathematics Education, Education Management Administration and Leadership Journal, Education Psychology Journal, European Early Childhood Education Research Journal, Cambridge Journal of Education, Journal of Dentistry, Journal of Neurology, Journal of Clinical Radiology, Journal of Surgery, and the Journal of Anatomy*.

3.2 Analyses

The study aimed to assess the inclusion of research methodology section; and the application of research paradigm and philosophies in articles published in top ISI/Web of Science journals across 15 sub-fields or academic disciplines. This was done to determine the relevance in practice as expounded in research theory.

The 225 randomly selected articles were analysed by means of a two-step method. The first step involved recording a list of all 225 articles into an Excel spread sheet. The coding scheme in the Excel spread sheet included eight (8) columns. The first six (6) columns were categorized using open coding scheme and comprised of: broad field of study, sub-field, title of the article, author(s), volume and issue number, and year of publication. The remaining two (2) were added to reflect findings from a summative analysis of each reviewed journal and categorized in excel as: methodology section, and research paradigm/ philosophy. Open coding allows researchers to identify the key research methods contained within each article reviewed (Babbie, 2013). The scholar's emphasis is that, it is necessary to uncover and open up the articles, in order to expose the thoughts, ideas, and meaning contained in the articles. The latter scholar warns that the inability to uncover (open up) the articles, compromises the rest of the analysis and communication that follows the research. The summative content method involved identification of key words related to research methodology terms such as: methods, qualitative, quantitative, case study, survey, experiment, action research, archival, ethnography, interviews, questionnaires', focus groups, paradigm, philosophy, epistemology, ontology, axiology, interprivist, pragmatist, positivist etc. Under methodology section column 7 of Excel spread sheet, a dichotomous nominal scale was adopted to elicit yes or no answers in the assessment of the inclusion of methodology section. Hence a category format scale was considered to reflect the type of paradigm/ philosophical stance discussed and a 'none' option where not applied in the last column 8. After summative analysis recording in Excel, the second step commenced and involved exporting the data of the 225 into SPSS where they were analysed to obtain descriptive frequencies and for cross-tabulation purposes. The quantification in this context was to explore usage for the purpose of latent content analysis (process of interpretation of content) embedded within summative analysis. It should be noted that data relating to authors, titles of articles, volume and issue numbers and any other direct details of the articles are not presented to maintain anonymity and respect the scholars' integrity. The findings, frequencies and cross-tabulation presented in the results section represent the two-step method of analysis, namely: summative and SPSS analysis.

4. Results

Although the primary aim of the paper is to draw out in great detail the practical implications of and the disparity between the importance of philosophies and paradigms, on the one hand, for conducting research, and their application, on the other hand; information pertaining to inclusion of methodology section is also reported since the application of paradigm and philosophies are mainly reviewed in this section. This also helps to assess common practice and standards across all three broader disciplines and associated journals. Analyses of application per broader field of study and inclusion of methodology section are presented in Table 2 for the three years (2000; 2007 and 2014). From the analysis in Table 2, it appears that there are articles published without the methodology section, most appearing in the broader field of Social Sciences (44 out of 75), followed by Education with 27 out of 75. Interestingly, only two of the 75 articles in Health Sciences are without a methodology section. Hence, none of the 75 articles from Health Care explicitly discussed or applied their paradigm and philosophical stance. Comparing Social Sciences with Education, no difference could be found between the two academic fields; both hold 3 articles with paradigm and philosophical stances. Overall, only 6 (2.7%) of the 225 articles sampled applied research paradigm and philosophical stance. Contrary to the relatively limited paradigms and a philosophical application however, a significant number of articles, 67.6 per cent (152 of 225), have methodology discussions across the three fields.

Table 2: Broad field methodology inclusion and paradigm/ philosophy application

Main Field of study			**Methodology section included**		**Total**
			Yes	No	
Social Sciences	Is research paradigm and philosophies discussed	Yes	3	0	3
		No	28	44	72
	Total		31	44	75
Education	Is research paradigm and philosophies discussed	Yes	3	0	3
		No	45	27	72
	Total		48	27	75
Health Science	Is research paradigm and philosophies discussed	No	73	2	75
	Total		73	2	75
Total	Is research paradigm and philosophies discussed	Yes	6	0	6
		No	146	73	219
	Total		152	73	225

4.1 Sub-fields and names of journals with no methodology

Results findings pertaining to no methodology sections raised curiosity to assess the sub-fields and journal origins of these articles. Starting with Social Sciences, the majority of articles with no methodology are from the sub-field of Economics published in the Cambridge Journal of Economics; literally none of the 15 sampled articles had methodology section. Notably, there are methodology sections appearing from the sub-field of Human Education published in the Cambridge Journal of Education as opposed to the sister Cambridge Journal of Economics. The sub-discipline of Finance in the field of Social Sciences follows suits with 10 articles without methodology published in Abacus-A Journal of Accounting Finance and Business Studies. The difference of one article with no methodology separates the total number of articles from the sub-field of Human Resources published in the Journal of Human Resource Management and sub-field of Marketing published in the Journal of Business and Industrial Marketing respectively.

The journal with the least occurrence (4 articles) came from sub-field of Business Management published in the Journal of Management Studies. The sub-field of Business Management concludes the Social Sciences' most record of no methodology section articles. Moving on to the field of Education, the sub-field of Human Education published in the Cambridge Journal of Education holds the most (10) articles) without a methodology section. This is followed by 8 articles with no methodology sections from the sub-field of Child Education published in European Early Childhood Education Research Journal. The latter journal exceeds the sub-field of Education Management published in the Educational Management Administration & Leadership with 3 articles without a methodology section. The sub-field of Education Psychology holds only 1 article published in Education Psychology Journal. The last sub-field of Education, namely, Mathematical Sciences contains fewer frequencies (2) of articles with no methodology section published in the Journal of Research in Mathematics Education in the field of Education. The 2 articles with no methodology appearing in the field of Health Sciences relate to the sub-field of Neurology. In comparing all Journals, the Cambridge Journal in both Social Sciences and Education fields combined, tops the charts with most prevalent articles without methodology sections (87% or 26 of 30 articles sampled in the Cambridge Journals had no methodology section). The Cambridge Journals alone represent 12% of the total 32.4% articles without methodology sections across all disciplines.

4.2 Sub-fields with paradigm and philosophical stance application

From the 2.7% (6) articles that applied paradigm and philosophical stance in Table 2, the sub-fields of Business Management and Human Education hold 2 equal records each, representing the broad fields of Social Sciences and Education. Hence, Marketing and Human Education hold single record each, also from the latter broad academic fields. Interpretivism appeared in both fields of Social Sciences and Education. Hence, strategist and positivism are other Social Sciences' philosophical stances, which are different from reductionism and phenomenology, two stances reflected in the field of Education. Although the fields of Social Sciences and Education have the most articles without methodology on the one side of a coin, on the flip side, both fields have highest number of articles with paradigm and philosophical discussions.

4.3 Main field of study with years of paradigm and philosophical application

Of particular interest was whether or not there is an increase or decrease in application of paradigm and philosophical stance over the sampled years presented in Table 3. The results findings of the field of Social Science are consistence for 2014, 2007 and 2000, with one record of application appearing each year from the 75 sampled articles. Hence, there is a degree of change in the field of Education; from the total of 75 articles sampled, there was a slight increase of 1 more article in 2007 from just 1 article recorded in the year 2000, but the increase did not hold in year 2014, recording zero paradigm and philosophical application. Comparing 2000, 2007 and 2014; the paradigm and philosophical application in year 2000 increased by 1 article from 2 to 3 articles in 2007, but decreased by 2 articles in 2014. The trends appear to suggest that from the current, relatively limited application, paradigm and philosophical application are swiftly disappearing.

Table 3: Main field of study with years of paradigm and philosophical application

Is research paradigm and philosophies discussed			Main Field of study			Total
			Social Sciences	Education	Health Science	
Yes	Year of Publication	2014	1	0		1
		2007	1	2		3
		2000	1	1		2
	Total		3	3		6
No	Year of Publication	2014	24	25	25	74
		2007	24	23	25	72
		2000	24	24	25	73
	Total		72	72	75	219
Total	Year of Publication	2014	25	25	25	75
		2007	25	25	25	75
		2000	25	25	25	75
	Total		75	75	75	225

5. Discussions and conclusions

This paper reviewed 225 articles published in 15 different sub-disciplines Journals to explore the application of (1) methodology sections and (2) paradigm and philosophical stances in the scholarly field. The investigation serves as necessity, given the question of its relevance and implication for teaching and learning for Masters and PhD students and its future in the scholarly field. The findings indicate that statistical differences exist amongst disciplines when differentiated by their sub-fields and journal types in relation to inclusion and discussion of studies' methods of investigation. Of the 225 articles surveyed from the 15 sub-disciplines and associated journals, 73 articles (32.4%) have not included methodology section. Most of this practice is found in the Social Sciences and Education, rather than Health Sciences. Put simply, 152 articles (67.6%) included research methodology sections. The sub-fields giving rise to the practice of not including a methodology in the field of Social Science is Economics, where not a single article, published in the Cambridge Journal of Economics had a methodology section. The latter sub-field is followed by the sub-fields of: Finance, Marketing, Human Resources, and Business Management sharing a total of 29 articles amongst them. In Education, the practice of not including methodology sections in articles is more prevalent in the sub-field of Human Education, Child Education, Early Childhood Education and Education Management. What can be deduced from the different journal types is that articles published in the Cambridge Journal of Economics and the Cambridge Journal of Education are not inclined to have methodology sections and discussions. This suggests that there are different perceptions of research methods across disciplines and journals; which have implications for teaching and learning. Therefore, to ensure consistency of standards and quality, the differences should be considered across disciplines. This is not to advocate that the practice in Economics and associated Cambridge Journal of Economics and Cambridge Journal of Education be amended in line with the findings of this study, only that the implications of differences in practice be reflected in teaching and learning or be carefully considered. This should be carefully considered to avoid confusion and misunderstanding in teaching research methodology courses. Of the total of 225 articles analysed, only 2.7% (6 articles) applied a paradigm and philosophical stance across 15 sub-disciplines. The findings provide some interesting statistical evidence concerning the application of paradigm and philosophises and the question of its relevance in research and the scholarly field.

The findings have implications for advocates of research methods and, for academia, in that the message conveyed in the teaching and learning of paradigms and philosophies, and the way in which the learning is applied in journals, at national and international level, may have to be reconsidered. To offer paradigms and philosophies as: (1) guides for researchers in choices of methods, and (2) frameworks that reflect the basis under which research is conducted; yet, potentially ignoring the findings of this study, makes the advocacy of paradigm and philosophies in research appears to be inappropriate. If the advocacy of research paradigm and philosophies is to be encouraged, certain practices of scholars in top journals must be taken into consideration; otherwise its limited application may deem paradigm and philosophies to be irrelevant to the development of and outcome of research knowledge. Put simply, the findings appear to negate the view and importance of paradigm and philosophies in the literature previously discussed (Blaikie, 2000; Hatch & Cunliffe, 2006; Guarino, 1998; Guba & Lincoln, 1994); and embrace Becker's (1996) belief that 'a lot of energy is wasted hashing over philosophical details, which often have little or nothing to do with what researchers actually do. Therefore, if Becker's (1996) view is to be deemed irrelevant, then research theory should reflect research practice in top ISI journals, to justify the relevance of paradigms and philosophes as guides and framework for research in teaching and learning.

Considering that scholars taking part in top ISI/Web of Science journals are important drivers of knowledge production, their application, influence and power in propagating the use paradigm and philosophies can serve as a model that widen the process of knowledge production, especially for teaching and learning at Masters and PhD levels. This is because the practices of scholars and editors in ISI/Web of Science Journals alone have a tendency to affect knowledge development outcome positively or negatively. Further areas of interest included an observation of whether the application of paradigms and philosophies across disciplines was increasing or decreasing. The analysis shows a decrease from 6 articles to 1 article between the years 2000 and 2014, with Education disappearing in the scene, leaving only the field of Social Sciences as the main player. Interestingly, Seale (1999) states that 'philosophy is often presented as underpinning the craft of social research', but the findings present a different view, contradictory to Seale's statement. Only 3 of the 75 Social Sciences articles presented philosophical discussion for their research.

The fact that only 6 articles applied research paradigms and philosophies across the years: 2014, 2007, and 2000, suggests a strong indication that research paradigms and philosophies have reached a critical juncture in their relevance in academia. Whether this juncture represents maturity, a rising trend or a decline remains an interesting future research question. The relatively limited application found in these journals has evolved to the point where retrospective assessments are warranted from both scholars and the editors of the journals. Perhaps the exclusion of paradigm and philosophical is due to the fact that most papers are co-authored, and the presentation of different stances causes even more confusions. Since the primary focus of this paper is on application, it would be beyond the scope to elaborate on this point.

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