

The Utility of Pragmatism in Educational Research

Rosalyn King

Faculty of Education and Society, University College London, London, UK

Email: Rosalyn.king@hotmail.com

How to cite this paper: King, R. (2022). The Utility of Pragmatism in Educational Research. *Creative Education*, 13, 3153-3161. <https://doi.org/10.4236/ce.2022.1310199>

Received: September 2, 2022

Accepted: October 7, 2022

Published: October 10, 2022

Copyright © 2022 by author(s) and Scientific Research Publishing Inc. This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

Abstract

This article seeks to address why the pragmatic approach is of utility to the educational researcher. The article's objectives will address the major contributory thinkers of Peirce, James, and Dewey, and demonstrate why pragmatism is not an epistemology but best considered a methodological approach, and why it is thus, suited to the utility of both quantitative and qualitative methodology and method. It will do this first, by reviewing such arguments in 2 sections: in the first, I will introduce the philosophical assumptions & beliefs relevant in the role of knowledge acquisition, whilst explaining the key theoretical beliefs of the 3 classic pragmatists. I will then summarise how it is not considered an epistemological approach; albeit the approach demonstrates ontological and epistemological awareness. In the second half of the article, I will explore through the logic of justification why it is most beneficial as a methodology. The article fundamentally addresses, through example of an educational research inquiry—how pragmatic methodology does not merely reduce all that is known and experienced to binary assumption for the researcher, like its epistemic competitors. But by evaluating social scientific knowledge via reflexivity *and* quantitative methods, research thus, becomes a social endeavour—for the practitioner & researcher alike. The article will also conclude noting such distinction between Peircean pragmatic method and that of more contemporary theorists, whilst challenging why the former is most suitable for the investigative pragmatic researcher.

Keywords

Educational Researcher, Pragmatism, Methodology, Epistemology, Ontology

1. The Theory of Pragmatism

Although research is considered to be founded on ontological and epistemological assumptions, so to establish and inform a research process (Lincoln & Guba,

2005), pragmatism is neither considered an ontology or epistemology and at best, considered to reflect a methodological approach (Biesta and Burbule, 2003; Pihlström, 2008; Houser, 2010). For the linear or purist researcher out there then, its theoretical position is considered to be somewhat nestled between the paradigms of positivism and constructivism (Martela, 2015). Its purported utility as a methodology and not an epistemology (Houser, 2010) however, allows it to encompass both qualitative and quantitative methodology and method, so to further “actionable” inquiry; rather than just mirror reality of a linear truth or multiple, for the sake of it (Adler and Clark, 2011; Feilzer, 2010). This is beneficial to the [educational] researcher because of its practical utility, and thus, does not follow on the only aspect of research, that being, the “entailment of epistemology to method” (Johnson et al., 2007). The fallibility of logic or truth-seeking inquiry is thus, not considered primary to the purpose of research within pragmatism.

Pragmatic philosophy can be considered as wholly contentious; like a house divided upon itself, not least because of its many differences and these often being at odds to each other, but because each leading thinker devised their own thought as to what pragmatism should be (Hall, 2013; Biesta and Burbule, 2003). The broadest of these differences, and a central premise withheld to pragmatism is referred to as the pragmatic maxim (Bacon, 2012). This rule, central to the pragmatism philosophy of method and beneficial to the researcher when seeking a research question; suggests an “inquiry” can only be “inferred” if the researcher goes through a series of doubts in their everyday behaviour and experience. These are then assessed and re-assessed through a process of abduction, deduction and induction: until the inquiry is validated as: “able to withstand future inquiry” (Peirce, 1878 [1986: pp. 266-273]).

Pragmatists coin the term “inquiry”, in place of the objectivist’s epistemic assumptions of “knowledge” because the pragmatist is not seeking the representational value, or truth per se, but seeking the inquiries actionable and theoretical value (Biesta & Burbule, 2003). The process in which one does this is through abduction; this Peirce argued was the only way an inquiry could be validated and therefore empirically evidenced. Pierce went further and purported that method of inquiry should be fit for the purpose of such inquiry and therefore able to adapt to the researcher’s question. It is for this very reason Peirce said an inquiry or research question is *only* inferred as validated once it is able to withstand further inquiry, because it is based on how best its available evidence purports it to be (Misak, 2022).

2. The Diversity within Pragmatism

It is here then, most notably on the pragmatic maxim, the classic pragmatists of Peirce and James significantly differed in their epistemic assumptions. With Bacon (2012) however, arguing one should *not* consider this as division, but instead of diversity, as the polarity of thought led Peirce to coin his approach of

pragmatism to “pragmaticism”. Peirce’s rationalist approach to everyday behaviour led him to infer a “resultant expectation”; not only entitling Peirce to that of an “internal realist” (Putnam & Putnam, 2017)—but contrary to the anti-representational position of knowledge, posited the exact distinction for the purpose of such community (Kaspers, 2022).

Empirically validating *for only* Individual experience was of no interest to Peirce because practically it could not be of use, to the “common man” (sic) (Biesta and Burbula, 2003). James however, contradicted Peirce’s monist assumptions with that of pluralism, such that; an inquiry or belief of the person’s “truth” can never be generalised, as it represents how one knows their reality. Each inquiry or belief then, represents multiple “truths” based on each person’s validation of the inquiry (Biesta and Burbula, 2003).

It is the consideration of such assumptions within pragmatic philosophy, which has then been critiqued as to providing an alternative epistemological position, in understanding how knowledge is acquired (Hall, 2013). As the duality assumption, albeit, the separation of mind [consciousness] and its matter [environment] are replaced here by ontological monism, [*or* pluralism]. Peirce contends the researcher cannot be considered separate to their study as there is no distinction between everyday behaviour and “then” research. The inquiry arises from our transactions with an experience, being in total unity (Peirce, 1903a [1998]).

3. Critique of Pragmatism’s Theoretical Position

This is further evident in critique poised to Peircean pragmatists on why all experiences are therefore *not* research endeavours (Peirce, 1931). As a doubt is a more conscious unified experience leading one to question and reason their behaviours, therefore not all [subjects or objects] need to be theoretically questioned or meaningfully valued. However, Martela (2015) suggests it is more appropriate to consider Dewey’s pragmatic theory of methodology as akin to an alternative epistemology, because unlike the other classic philosophers. Dewey determined his “theory of inquiry”; as inquiry in itself—entangled instrumentally with its own ontological and epistemological bias, thus denoting an “experiential” ontology, as well as a fallible *instrumentalist* epistemology (Hildebrand, 2003; Martela, 2015).

4. Research Study

Notwithstanding these diverse in-house theoretical positions: the clear epistemic differences between the philosophies of pragmatism and positivism can be explored in the following study. Starting with the explanatory statement (abduction): “How does the use of the virtual classroom (VLE) have a positive impact on student learning?”. Very simplistically the pragmatic approach may enquire and raise “doubts” through published and non-published literature—to see if there are any knowledge gaps firstly on the topic. They may consider deductively as well; what would be of greatest benefit within educational research or practice

as a line of inquiry i.e., what constitutes a “positive impact” for students’ what specific types of VLE resources exist and how and why should they provide the greatest benefit [to the class/student]? Whether the teacher or student contribution within VLE have equal weighting in influence?

5. Research Objectives and Impact

Here, the abductive technique informs and refines the explanatory hypothesis, and also helps alongside the deductive method, establish the study objectives as well (Peirce, 1903b [1998]; Morgan, 2007). To the pragmatist researcher then, the actionable value [experiential consequences] of such techniques, may enable one: to use different teaching methods in schools; across different groups of students so to enhance learning, and specifically review and implement strategies for teacher and pupil; in post pandemic situations or for those difficult to engage students?

According to the objectivists “correspondence theory” however, the alternative hypothesis would render the observation as “true” where pupils demonstrate improved performance scores, whilst VLE is in use; where the collection of “objective” data is implemented. The statement is therefore found, via numerical measure to correspond to what exists in reality. To the educational researcher then, it can be seen that the pragmatic approach is more than just an attempt to reason “representationally” with its statement. In summary then, the inquiry and its focus on the experiential consequences of such, indicates pragmatism can be seen of being of utility to the researcher with respect to refining experiences and thus, its very practice.

6. The Best Line of Inquiry

During the inquiry process, where there are several interpretations open to the researcher, the best line of inquiry to pursue can be based on its approximate utility, in accordance with Dewey’s pragmatism (Dewey, 1911 [2008]). It is at this point where the true understanding of the pragmatic method emerges, as the “instinct” to choose the most “beneficial” “economical” or “helpful” line of inquiry is not merely reduced to all logic, and encompasses the wider understanding of abductive reasoning as well (Biesta and Burble, 2003). Individual thought, perception, and socio-cultural context are seen by the pragmatist as sources of knowledge, these being referred to as social facts and in transaction with one’s environment (Dewey, 1911 [2008]). These then become as notably coined by Dewey (1929 [1984]): “verified by the most suitable systematic and experimental method”. This being in contrast to the worldview of the realists who seek to explain subjective phenomena or “social facts” objectively and without any subjective bias (Rorty, 2010).

7. Further Pragmatic Divergence

It is here again, to draw attention to James’s distinct consideration of pluralism

in respect to the verification of social facts, as this establishes the course of pragmatic method from herein (Kellen, 2018). James emphasis on “truth” and knowledge being of a pluralistic nature indicates “social facts” cannot be criticised, or refuted, as they form and shape one “truth” of many [realities] (Hookway, 2012). This is emphasised by what James suggests: “...that no single point of view can ever take in the whole scene” (Goodman, 2002). It is with this notion—of a limited evaluative role of social facts in James’s pragmatic methodology, where the divergence of pragmatism is further conceded. It is both Peirce and Dewey who form then an understanding for the building blocks of critical reflexivity in pragmatic research, with questions most aptly posited by Feilzer (2010) such as: “what is it for” “who is it for” and “how do researchers...” enabling a pragmatic shaping of the inquiry to emerge.

8. Summary

From the 3 above mentioned pragmatists’: Peirce, James, and Dewey, it can be seen the pragmatic maxim is the theory of “truth” within the philosophies of pragmatism and pragmatism. Whilst on one end of the continuum, Peirce maintains ontologically, assumptions of monism; inferring knowledge as: “inquiry” and “validation”; Dewey as: “verifications” and practicality, and James defining this in terms of ontological *pluralism* and “truth” to the best possible inference. Pragmatism thus, does not define social scientific knowledge for its own sake, but its utility is to support the explanation of such social and practical regularities. It can be assumed therefore, pragmatism does demonstrate epistemological and ontological awareness, although the diversity of thought within the house of philosophy leaves it somewhat open to further criticism. One such thought, posited by Kaspers (2022) is that the very premise of both Peirce and Dewey’s assertion that knowledge provides a: “resultant expectation” of such, can therefore be considered to reflect dualist assumptions. This begs the question, whether the epistemic assumptions are really an alternative then, at all.

9. Qualitative and Quantitative Methodology and Method

As pragmatism is not committed to an ontological or epistemological stance, and in accordance with the pragmatic maxim; the “actionable inquiry”, places it well within the utility of both qualitative and quantitative methodology and method. It is therefore because of this, pragmatism is best considered a methodological approach in its own right (Martela, 2015; Houser, 2010). It is important to clarify however, this is not to be confused with mixed methods research (MMR) that although “appears” to overlap with the use of both approaches does have different theoretical underpinnings, see Onwuegbuzie & Leech (2019) and Morgan (2007, 2014). It is noteworthy here then, to give attention to the differential terms of methodology and method, as these at times, can be used interchangeably but refer to different concepts within research design. Methodology can be considered as the reasoning and theoretical justification behind the re-

search processes being implemented, where as methods however refer to the *specific techniques* employed by such processes at the different stages of research (Patton, 2002).

The advantages of using both qualitative and quantitative research enable the weaknesses of either methodology to be complemented by the strengths of the other (Johnson and Onwuegbuzie, 2004). More specifically, this refers back to the [fallible] logic of justification, whereby epistemology is considered synonymous with the choice of design (Onwuegbuzie & Leech, 2007). This is “typically” associated with the deductive reasoning approach and synonymously, quantitative methodology: due to the objectivist’s correspondence theory. Similarly, qualitative methodology is “typically” synonymous with the inductive approaches. However, as we have seen, Peirce utilises both approaches in pragmatic research, in addition to abductive techniques. Strengthening the argument that the use of the [binary] reasoning techniques helps avoid any polarisation, and enables a more thorough inquiry process (Johnson and Onwuegbuzie, 2004; Morgan, 2007, 2014).

10. The Pragmatic Methodological Approach

If we accept then, that studying social scientific knowledge through the theoretical lens of pragmatism, as opposed to the epistemic beliefs of correspondence theory and in contrast to realist ontology: “of an observer, looking into the world of another...out there” then the researcher arrives back at the abduction approach as a research technique. This, often unanimous with the pragmatic theory of method in part because Peirce founded it, is not, an amalgamation of deduction and induction, but a reasoning technique in its own right (Capps, 2019). What this does allow, compared to its binary members however, is an abductive analysis of *both* qualitative and quantitative *methodologies and in equal proportions*, something which MMR does not enable (Morgan, 2014). It can therefore be argued, by using a pragmatic methodological approach one can not only avoid the polarisation of the research inquiry *by using both approaches*, but avoids the clash of philosophical assumptions and associated beliefs—of which MMR research fails to overcome (Morgan, 2014). It is therefore posited, specifying the study’s position as a pragmatic study firstly helps to identify its position in the field of research theory (Onwuegbuzie and Leech, 2005).

11. The Pragmatic Maxim Revisited

It is important to determine however, in contrast to contemporary pragmatists who suggest a continuous cycle of deduction to induction and *where relevant!* abduction (Capps, 2019). Peirce demanded the inquiry process is started linearly *from abduction*, where it is then validated or verified lastly, at the inductive stage (Biesta & Burble, 2003). This is because at the explanatory hypotheses stage, where the inquiry commences; the interest inferred—dictates with no such certainty, that it is not a mere random inference that we have thus observed,

doubted, and therefore, to verify such social regularity, we seek to map the class of phenomena to increase our cognitive and practical understanding of it (Hookway, 2012). We do this by seeking out, *at an intermediate level* (i.e., *abduction*)—core concepts from our observations & the relevant literature, and can then infer further distinctions of relevant domains.

12. Research Contribution

This is already seen in the aforementioned inquiry, with questions such as: “how should VLE resources provide the greatest benefit [to the class/student]” and “why would VLE provide the greatest benefit [to the class/student]”. Further *domains* may thus entail: the ability to use *self-paced learning methods*, the *promotion of open communication*, *improved accessibility* for some groups of students. We can do this in part, due to the complexity of the material, by using methods such as descriptive statistics, formal coding, and cross tabulation to cross cut the categories [of teacher focus group data], elicit similarities and differences between and within the data; and therefore, start to structure and arrange the inquiry process in itself (Friedrichs and Kratochwil, 2009).

13. Data Handling in Pragmatic Methodology

Again, statistical inference is not the goal of pragmatic research, so these analytical and descriptive methods will always be kept simple and as intuitive as possible.

Furthermore, it is important again for the researcher to not get lost in any causal inference, less commonly referred to as monocity reasoning and typical of deductive methods, when utilising descriptive statistics in qualitative research. It is thus, why the researcher refers back to the original data source, and checks the qualitative data patterning, similarity or difference, and where this can't be inferred, for it to be dropped as spurious (Morgan, 2007; Friedrichs and Kratochwil, 2009).

14. Conclusion

This article has reviewed pragmatism being of utility to the educational researcher whilst acknowledging the philosophy's ontological and epistemological awareness. Pragmatic inquiry can be defined as not a description of reality and nor of representational knowledge, but as a fully transactional experience—seeking to pursue its theoretical and actionable worth. Its point of influence in educational research, highlights its focus is not simply to know more, but to apply, problem solve and enhance awareness of one's *interaction* with the world. Due then, because of the philosophy's divided principles and theories of such, the philosophy is best considered a methodological approach. It is through these said values therefore, unique only to the pragmatic maxim, and evaluated via reflexivity, both qualitative and quantitative methodology and method, an enablement in research exists, between practice educators and researchers alike.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

References

- Adler, E. S., & Clark, R. (2011). *An Invitation to Social Research: How It's Done* (4th ed.). Wadsworth.
- Bacon, M. (2012). *Pragmatism: An Introduction*. Polity.
- Biesta, G., & Burbules, N. C. (2003). *Pragmatism and Educational Research*. Rowman & Littlefield.
- Capps, J. (2019). The Pragmatic Theory of Truth. In E. N. Zalta (Ed.), *The Stanford Encyclopedia of Philosophy* (Summer 2019 ed.). The Metaphysics Research Lab. <https://plato.stanford.edu/archives/sum2019/entries/truth-pragmatic>
- Dewey, J. (1911 [2008]). The Problem of Truth. *Old Penn, Weekly Review of the University of Pennsylvania*, 9, 522-528, 556-563, 620-625.
- Dewey, J. (1929 [1984]). The Collected Works of John Dewey. In J. A. Boydston (Ed.), *The Quest for Certainty: The Later Works, 1925-1953* (pp. 1-40, Vol. 4). Southern Illinois University Press.
- Feilzer, Y. M. (2010). Doing Mixed Methods Research Pragmatically: Implications for the Rediscovery of Pragmatism as a Research Paradigm. *Journal of Mixed Methods Research*, 4, 6-16. <https://doi.org/10.1177/1558689809349691>
- Friedrichs, J., & Kratochwil, F. (2009). On Acting and Knowing. How Pragmatism Can Advance International Relations Research and Methodology. *International Organization*, 63, 701-731. <https://doi.org/10.1017/S0020818309990142>
- Goodman, R. B. (2002). *Wittgenstein and William James*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511498138>
- Hall, J. (2013). Pragmatism, Evidence, and Mixed Methods Evaluation. *New Directions for Evaluation*, 2013, 15-26. <https://doi.org/10.1002/ev.20054>
- Hildebrand, D. L. (2003). *Beyond Realism and Antirealism: John Dewey and the Neopragmatists*. Vanderbilt University Press. <https://doi.org/10.2307/j.ctv16b78d6>
- Hookway, C. (2012). *The Pragmatic Maxim: Essays on Peirce and Pragmatism*. Oxford Academic. <https://doi.org/10.1093/acprof:oso/9780199588381.001.0001>
- Houser, N. (2010). Reconsidering Peirce's Relevance. In M. Bergman, S. Paavola, A.-V. Pietarinen, & H. Rydenfelt (Eds.), *Ideas in Action: Procedures of the Applying Peirce Conference* (pp. 1-16). The Authors and the Nordic Pragmatism Network.
- Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed Methods Research: A Research Paradigm Whose Time Has Come. *Educational Researcher*, 33, 14-26. <https://doi.org/10.3102/0013189X033007014>
- Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. (2007). Toward a Definition of Mixed Methods Research. *Journal of Mixed Methods Research*, 1, 112-133. <https://doi.org/10.1177/1558689806298224>
- Kaspers, T. (2022). Alethic Pluralism for Pragmatists. *Synthese*, 200, 1-19. <https://doi.org/10.1007/s11229-022-03558-5>
- Kellen, N. (2018). Methodological Pluralism about Truth. In J. Wyatt, N. J. L. Pedersen, & N. Kellen (Eds.), *Pluralisms in Truth and Logic* (pp. 131-144). Palgrave Macmillan. https://doi.org/10.1007/978-3-319-98346-2_6

- Lincoln, Y. S., & Guba, E. G. (2005). Paradigmatic Controversies, Contradictions, and Emerging Confluences, Revisited. In N. K. Denzin, & Y. S. Lincoln (Eds.), *The Sage Handbook of Qualitative Research* (pp. 191-215). Sage Publications.
- Martela, F. (2015). Fallible Inquiry with Ethical Ends-in-View: A Pragmatist Philosophy of Science for Organizational Research. *Organization Studies*, *36*, 537-563. <https://doi.org/10.1177/0170840614559257>
- Misak, C. (2022). A Sensible Pragmatist Conception of Truth. *Philosophy*, *97*, 275-294. <https://doi.org/10.1017/S0031819121000310>
- Morgan, D. L. (2007). Paradigms Lost and Pragmatism Regained: Methodological Implications of Combining Qualitative and Quantitative Methods. *Journal of Mixed Methods Research*, *1*, 48-76. <https://doi.org/10.1177/2345678906292462>
- Morgan, D. L. (2014). *Integrating Qualitative and Quantitative Methods*. SAGE Publications, Inc. <https://doi.org/10.4135/9781544304533>
- Onwuegbuzie, A. J., & Leech, N. L. (2005). On Becoming a Pragmatic Researcher: The Importance of Combining Quantitative and Qualitative Research Methodologies. *International Journal of Social Research Methodology*, *8*, 375-387. <https://doi.org/10.1080/13645570500402447>
- Onwuegbuzie, A. J., & Leech, N. L. (2019). On Qualitizing. *International Journal of Multiple Research Approaches*, *11*, 98-131. <https://doi.org/10.29034/ijmra.v11n2editorial2>
- Onwuegbuzie, A., & Leech, N. L. (2007). Validity and Qualitative Research: An Oxymoron? *Quality & Quantity*, *41*, 233-249. <https://doi.org/10.1007/s11135-006-9000-3>
- Patton, M. Q. (2002). *Qualitative Research and Evaluation Methods* (3rd ed.). Sage Publications.
- Peirce, C. S. (1878 [1986]). How to Make Our Ideas Clear. *Popular Science Monthly*, *12*, 286-302.
- Peirce, C. S. (1903a [1998]). Pragmatism as the Logic of Abduction. In the Peirce Edition Project (Ed.), *The Essential Peirce: Selected Philosophical Writings, Volume II, 1893-1913* (pp. 226-241). Indiana University Press.
- Peirce, C. S. (1903b [1998]). The Nature of Meaning. In the Peirce Edition Project (Ed.), *The 40 Essential Peirce: Selected Philosophical Writings, Volume II, 1893-1913* (pp. 208-225). Indiana University Press.
- Peirce, C. S. (1931). *Collected Papers, Vols. 1-6*. Harvard University Press.
- Pihlström, S. (2008). How (Not) to Write the History of Pragmatist Philosophy of Science? *Perspectives on Science*, *16*, 26-69. <https://doi.org/10.1162/posc.2008.16.1.26>
- Putnam, H., & Putnam, R. A. (2017). *Pragmatism as a Way of Life. The Lasting Legacy of William James and John Dewey*. Harvard University Press. <https://doi.org/10.4159/9780674979215>
- Rorty, R. (2010). Exchange on "Truth as Convenient Friction". In M. de Caro, & D. Macarthur (Eds.), *Naturalism and Normativity* (pp. 253-262). Columbia University Press.