

Curriculum Implementation (redux)

Apparently affirming the Fullan-Pomfret observation that curriculum implementation is an underdeveloped area in curriculum research,¹ Andrew Hughes and Joan Keith report that there are a few published studies published that focus on “the level of actual use of an innovation.”² What is published, they continue, confirm “findings ... in agriculture, clearly establishing a relationship between user perceptions of an innovation and their degree of implementation of it.”³ They reiterate: “All of the research emphasizes that it is the innovation as perceived by the potential user, and not the innovation in some objective sense or as perceived by experts, that is a critical variable.”⁴

To study the perception of potential users, Hughes and Keith do not interview teachers. Instead they list five “attributes” of “innovations” that are reported in the research literature as demonstrating “strong relationships with the degree of implementation or level of use.”⁵ “These are (a) relative advantage, (b) compatibility, (c) complexity, (d) trialability, and (e) observability.”⁶ Turns out these “attributes” of “innovations” are not elements of the “innovations” themselves but belong to teachers-implementers who perceive them so. For example: “If a user sees an innovation as having an advantage, of whatever kind, over current practice, then it is said to have a *relative advantage*.”⁷ Advantages might be “improved performance on the part of the students, increased class participation, decreased preparation time,” e.g. “costs and benefits,” the latter outnumbering the former.⁸ Casting teacher-implementers as self-interested rational agents mirrors assumptions made in mainstream economics, assumptions now being revised. Neuroeconomics, for instance, identifies “biographical variables” that “influence ... behavior but have been underweighted or ignored in standard economic theory.”⁹ Behavioral economics studies cultural and social – as well as emotional – factors in economic decisions.¹⁰

The second attribute of “innovations” correlated with degrees of implementation is “compatibility,” a term that denotes ease of incorporation, e.g. “when an innovation may be integrated into an already existing system without requiring the user to engage in an extensive reappraisal of his values, goals, beliefs, capabilities.”¹¹ If an “innovation” coincides with current practice, in what sense can it be called an “innovation”? The third attribute – complexity – refers not to the actual complexity of the curriculum reform, but instead “to the perception of how difficult an innovation is to understand and use.”¹² Reforms (or, in this article, “innovations”) that consist of “many parts” and that require “extensive training to learn to use” evidently correlate negatively with the degree of their implementation, while (conversely), those that are “simple, straightforward, and require no training to use” are bound for success. No doubt there could be correlations of these “attributes” not only with implementation but with student learning too. Why bother if learning – or

implementation – is not on occasion a challenge? The fourth attribute – trialability – also refers to ease of incorporation: “If an innovation may be tried or experimented with on a partial or limited basis, then it is considered *trialable*.”¹³ In other words: “It requires something less than total commitment and allows the potential user to experiment with the innovation without abandoning previous practices completely.”¹⁴ The fifth attribute – “*observability*” – references “the degree to which the ideas, practices, products, and results of an innovation are visible.¹⁵ Not only “visible to potential users,” but also “to others, particularly colleagues and superiors,”¹⁶ casting teacher-implementers not only as self-interested rational agents but status-seeking ones as well. Not a pretty picture.

After reviewing the research literature, Hughes and Keith undertook a study of “the extent to which teacher perceptions of these five attributes of an innovation were related to the degree of implementation of an elementary science curriculum after approximately two years of official adoption by the provincial department of education.”¹⁷ They hypothesized that “teacher perception of the relative advantage, compatibility, trialability, and observability of the new curriculum would correlate positively with the degree implementation, and that teacher perception of complexity would correlate negatively.”¹⁸ If it was easy and to their advantage, teachers would comply. Hughes and Keith found that, as predicted, “the degree of implementation was greater when teachers perceived the innovation as possessing a relative advantage over the previous curriculum; when they saw it as being compatible with their existing values, past experiences, and needs; when it was viewed as being possible to experiment with on a limited basis; and when the results were clearly visible to others.”¹⁹ Contrary to their hypothesis, however, they found that complexity – “the relative difficulty of the innovation to use and understand” - was “not significantly related to the degree of implementation.”²⁰ Hughes and Keith acknowledge a limitation: that their study occurred during a “single point of time” in an “ongoing process (implementation).”²¹ They also acknowledge that their data allowed no “conclusion concerning the degree of causal dependence of one variable upon the other.”²² They suggest that other “elements in the change process” need to be considered.²³

COMMENTARY

Research assistant Anton Birioukov-Brant judged the article of “little ... academic value,” as it provided correlation not causality. He allowed that it was “novel” because it was “quantitative,” but, he continued, it’s not novel to imagine that teachers would be more likely to implement a curriculum that they deem useful, easy, and one with which they experiment. I concur. I would add that quantifying “variables” obscures

what actual living teachers think and feel when working with their students, an ongoing existential situation that inevitably requires “innovation” from both teachers and students.

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ENDNOTES

¹ See research brief #68.

² Hughes and Keith 1980, 44.

³ Hughes and Keith 1980, 44.

⁴ Hughes and Keith 1980, 44.

⁵ Hughes and Keith 1980, 44.

⁶ Hughes and Keith 1980, 44.

⁷ Hughes and Keith 1980, 44.

⁸ Hughes and Keith 1980, 44.

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- ⁹ Couldry and Mejias 2019, 141. Biographical elements are key in curriculum conceived as *currere*: Pinar 2020.
- ¹⁰ <https://www.behavioraleconomics.com/resources/introduction-behavioral-economics/> Accessed April 2, 2021. For a commensurately complex case study of curriculum implementation see Wang 2013.
- ¹¹ Hughes and Keith 1980, 44.
- ¹² Hughes and Keith 1980, 44.
- ¹³ Hughes and Keith 1980, 45.
- ¹⁴ Hughes and Keith 1980, 45.
- ¹⁵ Hughes and Keith 1980, 45. While I wouldn't dispute the obvious importance of visibility, I am obligated to remind readers there is extensive literature on ocularcentrism, its relation not only to science (and social science) but to race (Pinar 2006) and overall perceptions of reality in modernity (Brennan and Jay 1996; Jay 1993).
- ¹⁶ Hughes and Keith 1980, 45.
- ¹⁷ Hughes and Keith 1980, 45.
- ¹⁸ Hughes and Keith 1980, 45.
- ¹⁹ Hughes and Keith 1980, 48.
- ²⁰ Hughes and Keith 1980, 48.
- ²¹ Hughes and Keith 1980, 49.
- ²² Hughes and Keith 1980, 49.
- ²³ Hughes and Keith 1980, 43.