Reframing Instructional Leadership Research

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Hallinger and Heck (1997) argued that '(*instructional*) leadership (*should be looked at*) as an 'adaptive process rather than a unitary independent force' and allows for the possibility that 'causal relationships may be multi-directional, change over time and even be non-linear' (p. 168). The rationale to consider Instructional Leadership practices in schools as an 'adaptive process' is supported by the fact that schools are social, open and dynamic systems. Schools are subjected to continual changes to meet shifting policies, social, economic, and technological forces in its environment.

Almost two decades have past but interest and research in Instructional Leadership is still strong. However, these two decades have not fulfilled the call to look at Instructional Leadership as an 'adaptive process.' This was confirmed in a number of reviews of Instructional Leadership research (Southworth, 2010, Hallinger 2010, Hallinger & Chen, 2015, Walker & Qian, 2012, Ng, Wong, & Thanh, 2015). The review pointed to studies that predominantly adopted conventional social science research methodologies, specifically analytical tools such as descriptive, causal factor, correlational and advance modeling. These methods have constraints and limitations among which are: variable-based linear models measures are treated as 'rigorously real' measures of social reality, individuals use rational deduction (*ignoring the value premise of decision making*) and individuals are treated as independent and individualized.

Clearly, the conventional analytical tools are insufficient to explain the complex school system. Characteristics of the school system such as emergent behaviour, self-organization and nonlinearity could not be understood well using conventional social science formulas or statistics. This paper proposes and illustrates how complexity science research approaches can be applied within the social system to address complex Instructional Leadership questions. Complexity science is an interdisciplinary approach to science that studies how relationships between agents (individuals) give rise to collective behaviors of a system and how the system interacts and forms relationships with its environment. The analytical tools available in complexity science such as social network analysis, causal loop dynamic modeling, agent-based modeling, etc. provide the possibility to ask different research questions. Hence, reframing Instructional Leadership research through the lens of complexity science provides the most viable approach to understand the adaptive process and dynamic system of schools.