

Quantifying the Aspect of 'Imagining' in the Map of Dialogical inquiry

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Abstract : In a world full of rapid changes, people often need a set of skills to help them navigate an ever-changing workscape. These skills, often known as "future-oriented skills," include learning to learn, critical thinking, understanding multiple perspectives, and knowledge creation. Future-oriented skills are typically assumed to be domain-general, applicable to multiple domains, and can be cultivated through a learning approach called Dialogical Inquiry. Dialogical Inquiry is known for its benefits of making sense of multiple perspectives, encouraging critical thinking, and developing learner's capability to learn. However, it currently exists as a quantitative tool, which makes it hard to track and compare learning processes over time. With these concerns, the present research aimed to develop and validate a quantitative tool for the Map of Dialogical Inquiry, focusing Imagining aspect of learning. The Imagining aspect four dimensions: 1) speculative/ look for alternatives, 2) risk taking/ break rules, 3) create/ design, and 4) vision/ imagine. To do so, an exploratory literature review was conducted to better understand the dimensions of Imagining. This included deep-diving into the history of the creation of the Map of Dialogical Inquiry and a review on how "Imagining" has been conceptually defined in the field of social psychology, education, and beyond. Then, we synthesised and validated scales. These scales measured the dimension of Imagination and related concepts like creativity, divergent thinking regulatory focus, and instrumental risk. Thereafter, items were adapted from the aforementioned procured scales to form items that would contribute to the preliminary version of the Imagining Scale. For scale validation, 250 participants were recruited. A Confirmatory Factor Analysis (CFA) sought to establish dimensionality of the Imagining Scale with an iterative procedure in item removal. Reliability and validity of the scale's dimensions were sought through measurements of Cronbach's alpha, convergent validity, and discriminant validity. While CFA found that the distinction of Imagining's four dimensions could not be validated, the scale was able to establish high reliability with a Cronbach alpha of .96. In addition, the convergent validity of the Imagining scale was established. A lack of strong discriminant validity may point to overlaps with other components of the Dialogical Map as a measure of learning. Thus, a holistic approach to forming the tool - encompassing all eight different components may be preferable.

Keywords : learning, education, imagining, pedagogy, dialogical teaching

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