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Enlivening Fluid Intelligence in Blended Active Learning within the Cognitive Literacy Value Chain Framework

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Abstract

This is a case based reflection piece drawn from actual experience of successful teaching and blended action learning practices and principles. The cases were drawn from actual interactive teaching and learning in graduate programs in Malaysia, the U.S. A., and South Africa. The experience of teaching and learning involving metacognition and active online discussion internationally is described in terms of the cognitive literacy value chain developed by the author. The need for fluid intelligence in higher order thinking in a globalized knowledge economy is discussed in terms of the development of wisdom through the experience of transcending conventional thinking while sustaining refined thought processes and cultural values. Sample comments from reflection journals are presented.

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1. Introduction

As a professor in academia bridging the corporate consulting space the author has detected a recurrent complaint from CEOs concerning MBAs and management graduates. The complaint is that the mere competency to comprehend texts, articles, and subject matter is inadequate. What is deemed paramount and urgent is an ability to connect pertinent business and industry themes inductively in order to effectively respond to global and industry drivers. Given a rapid obsolescence of knowledge it is no longer enough that learners comprehend texts, articles, and concepts. The ability to *'learn how to learn'*, and to process unfamiliar content is the future. *'Fluid intelligence'* is the critical ability to learn new content and consider application into novel far reaching conditions or contexts. *'Crystallized intelligence'* is the retrieval or recall, and the routine acquisition of prior content (Cattell,

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1963). It represents the “what” of knowledge. Fluid intelligence is process driven and transforms data into information, knowledge through to wisdom. It is the high order “how” and “why” and “so what?” of intelligence. Much of fluid intelligence outcomes are higher order thinking products such as insights, and synthesis. Fluid intelligence may be enhanced or stimulated by active discussion based learning. Moreover, processing data into information and then into knowledge through to higher order cognitive activity such as applications in novel conditions or contexts results in both critical, insightful knowledge and wisdom (Gurubatham , 2005a) in the ‘Cognitive Literacy Value Chain’ .

Wisdom may be operationalized into higher order intelligence while appreciating and anticipating the practical impacts of decisions (Schwartz, 2011). The more current hallmarks of such an approach to wisdom firstly, are being visionary spatially across contexts and geography; and temporally, across past, present and future. Secondly, having broad comprehension, inclusivity and scope (Izak, 2013). Thirdly, a deep appreciation of decisional impacts. (McKenna, 2004, McKenna & Biloslavo, 2011). Moreover the sustainable impacts of trans-disciplined longer term thinking of inherent interconnections in disciplines and concepts are emphasized (Max-Neef, 2005). This is a central theme in modern education as it rises to meet the onslaught of globalization (Jorgenson and Shultz, 2012), and the pressures of a knowledge economy (Gurubatham, 2005a). The ability to identify drivers impacting organizations along with the ability to recommend innovative solutions based on critical and inclusive thinking are essential. Traditional MBAs and textbook approaches may fall short of this. There is a relentless demand in this 21st century of change and emerging markets for knowledge value addition. It commands a premium in human capital to include higher value-added thinking that is capable of insights across themes, with the adaptability to implement best practices company-wide and nationally, and the ability to assess and enhance the relationship of business impact with relevant stakeholders and communities. This article aims to highlight the salience of higher order thinking as an emergent theme in terms of the various strategies deployed to invoke reflection and metacognition. It is as such a position paper.

2. Legitimacy for the learning cases and approach

This position paper is *not* a specific controlled study partitioned into a one-to-one linear particularistic tracking of a specific methodology. In short, it is drawn from a *constructivist* paradigm of over 30 classroom cases of immersion into a *milieu* of teaching and learning procedures where online discussion is a major reinforcing component albeit not the only component in the process of active learning. The conclusions and samples are drawn from several classes over 4 years in 3 countries. The samples of reflection and discussion selected represent the typical content. A formal systematic content analyses of each component and the coding of responses beyond rubrics is of course welcome. Nonetheless the overall emergent theme represents the prominence of discussion that occurs as an expressive opportunity from personal metacognition along with meditation in short 2-6 week time frames. The real world case based discussion may be difficult to control for in pre-and-post-tests because of social facilitation effects in any specific methodology with control groups. In addition. These classes presented themselves as rare and valuable international classroom settings with intact, formally enrolled learner populations on actual accredited courses.

The author applied teaching learning strategies, involving 'metacognition', or reflective activity. Graduate courses were offered in the managerial psychology at HELP University in Malaysia and at Maharishi University of Management (MUM) accredited in the United States of America by the Higher Learning Commission and The International Assembly for Collegiate Business Education which is recognized by the Council on Higher Education Accreditation (CHEA). MUM also offers an action learning corporate MBA program for managers at Neotel, a telecommunications corporation in South Africa. All courses were taught in a blocks, or modules, in varied formats amongst the three venues, ranging from two to six weeks in duration but shared the commonality of one subject matter module at a time. Especially remarkable was the steep learning curve in which students attained reflective and higher order thinking in the relatively short 6 week period of time. Active discussion on the Moodle e-learning platform was found to catalyze the development of insightful thinking. Learning was encultured and encouraged as ‘Self exploration’ with a ‘connectedness to community and cosmos’ with the inclusion of affect. Emotional intelligence targeted ‘values of the heart’ i.e., refined feeling levels in order to enculture not just higher order thinking but also practical wisdom.

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