

A systems approach to quantifying experience in cross-functional collaboration to improve strategic thinking in the national intelligence community

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Abstract: How can we improve strategic thinking in Cross-Functional Collaboration (CFC) groups? CFC groups and activities are a common response to complex problems as it allows organisations to leverage their diverse experience base to foster innovative solutions. The dilemma with CFC groups often resides in both their behaviour and composition. Acknowledging the importance of group behaviour in decision-making, this paper seeks to optimise the composition of the CFC groups to improve their strategic thinking output. We propose that organisations can use experience as a proxy indicator of holistic intuition – one of the four main characteristics of strategic thinking. Individual experience flexibility and fluency (variety and quantity) can be measured and combined with others to maximise a CFC group strategic thinking potential. This paper proposes a novel measure of experience, designed to enhance strategic thinking in cross-functional groups, by recognising system complexity. This measure can be used to inform workforce planning, CFC group composition, and developing individual strategic thinking and analytical abilities.

Keywords: Behavioural Operations Research, Strategic Thinking, Cross-Functional Collaboration, National Intelligence, Intuition

1. INTRODUCTION

The author was approached to explore methods to improve strategic thinking output in cross-functional collaboration (CFC) activities in the Australian National Intelligence Community (NIC). The problem seemed to be the inability to emulate strategic thinking in CFC teams and activities. After discussion with the sponsor of this project, the absence of strategic thinking – and corresponding output – appeared to be rooted in both CFC behaviour and CFC composition. This paper focuses on CFC composition and proposes several models that builds CFC strategic thinking ability.

In dynamic and interconnected business or operational environments, CFC activities often dictate the success or failure of strategic initiatives. CFC teams are built by leveraging an organisation's diverse expertise to bring unique perspectives and facilitate innovative solutions. CFC behaviour, manifested in team alignment, communication, and decision making, is often derailed by the very group diversity that is fundamental for success. Like any system, the links between the constituent agents provide the integral strength of that group. The links between each agent

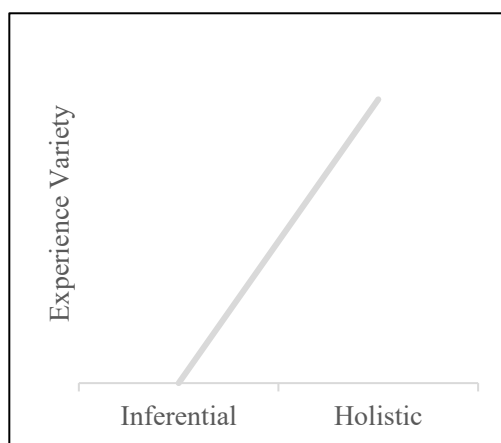


Figure 1 Relationship between experience variety and intuition type

in a CFC team is strengthened through attractive attributes such as common experience, goals, and values. The dilemma posed by CFC composition is to ensure there is sufficient breadth of experience yet also sufficient commonality to ensure clear communication between participants and stakeholders. Despite extensive research on group dynamics and strategic thinking, there has been limited focus on quantifying the role of individual and collective experiences in enhancing these capabilities.

2. METHODOLOGY AND RESULTS

The framework for strategic thinking is based on the four identified strategic thinking characteristics: Systems Thinking, Visionary Thinking, Creative Thinking, and Holistic Intuition (Young, 2018). Specifically, we leverage the relationship between intuition and experience (Figure 1). Intuition is the ability to quickly anticipate consequences based on qualitatively non-analytical process and is developed through pattern recognition. Recognising that greater experience flexibility

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strengthens holistic intuition, while greater experience quality improves inferential intuition, we propose a simple relative measure of individual experience.

$$O_n = \left(\frac{fl_n}{A}\right)fx_n$$

Where fl_n is the total time in work; fx_n is the number of sub-systems the participant has experience in; and A is the number of sub-systems in the layer model. There is an implicit assumption that sufficient experience in a sub-system requires the same unit of time as used to measure fl_n .

3. CONCLUSIONS

We have devised a simple, relative measure for individual experience that can be used in workforce planning, CFC group composition, and developing individual strategic thinking and analytical abilities. The development of this measure required several logical steps that, in turn, created useful insights into an individual's limit of personnel flexibility, strategic thinking thresholds that are dependent on environmental complexity, and experience flexibility potential in the National Intelligence Community.

The research is not mature and requires validation however, we hope to provide a solid foundation for future work in intuition, experience and strategic thinking.

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