

The Appropriateness and Feasibility of Linking Organisational and Team Competencies

Introduction

To help provide direction for the future implementation and application of research into information exploitation (IX) team competencies within a networked enabled capability (NEC), a scoping study was performed by Air Affairs (UK) Ltd ; this paper reports on this scoping study.

Literature highlights that team effectiveness is determined by a combination of factors that need to fit together and constantly adapt to each other [1]. According to Tannebaum et al [2] there are many factors that could enable or block effective team performance including individual competencies, the environment and crucially, the organisation structure, culture and processes.

Tannebaum et al's [2] model highlights that if the organisation's structure, culture and processes do not support the development and deployment of the team competencies trained, then this would adversely affect the ability of the team to deploy their competencies successfully. Therefore although individual teams and multiple MoD teams may undergo team training, the organisational processes and practices would need to be in place to ensure the successful transference of the team competencies to the operational and business environment.

A means of predicting the MoD's ability to successfully deploy IX team competencies within its military and civilian organisations would enable complementary organisational improvement strategies to be developed and implemented. An assessment model would provide this predictive capability, and this paper considers the appropriateness of adapting existing organisational performance and maturity models to provide such an assessment model.

Selection of Organisational Performance/Maturity Model

For this study five organisational performance tools and three maturity models were analysed to identify the appropriateness of linking the tool/model to the IX team competencies.

The scores from the appropriateness analysis found the most appropriate maturity models to link were the Capability Maturity Model Integration (CMMI) [3] and People Capability maturity Model (P-CMM) [3].

The CMM¹ (staged approach) has five maturity levels which prescribe the order for implementing each component "Process Area" in terms of maturity from the lowest "Initial" level to the "Optimising" level.

The CMM maturity levels comprises of the following components:

- **Process Area** – a cluster of related practices in an area that, when implemented collectively, satisfies a set of goals considered important for making improvements in that area.
- **Specific Goals** – describes the unique characteristics that must be present to satisfy the process area, and is used in appraisals to determine whether a process area is satisfied.
- **Specific Practices** – the description of an activity that is considered important in achieving the associated specific goal.
- **Generic Goals** – describes the characteristics that must be present to institutionalise the processes that implement a process area. These may appear in multiple process areas.
- **Generic Practices** – the description of an activity that is considered important in achieving the associated generic goal. These may appear in multiple process areas.

¹ The structures of the CMM and P-CMM are essentially the same; differences exist predominantly in terms of content. For ease of reporting the term CMM structure will be used to refer to both the CMM and P-CMM structures.

Key differentiators of the CMM compared to the other organisational performance tools analysed are that it:-

- offers an incremental (or staged) approach to improving organisational maturity, allowing relatively small changes to be made and consolidated before attempting more significant improvements.
- requires organisational best practices to be institutionalised through the achievement of “generic goals and practices”.

Linking IX Team Competency Framework with the Capability Maturity Model

The IX team competencies were structured as follows:

- **Cluster** – A collection of closely related competencies, usually three to five per cluster
- **Competencies** – knowledge, skills and attitudes that team(s) would demonstrate when working effectively as a team to achieve shared situation awareness
- **Behavioural indicators** – Examples of MoD war fighting and business behaviours associated with a specific competency that would be observed when a team(s) demonstrates competency.

The methodology used within the study to link the IX team competencies involved mapping the CMM structural components to the IX team competencies structural components. The outcome of this mapping is presented within Figure 1.

Not surprisingly no direct link existed from the CMM generic goals and practices to the IX team competencies as the generic goals and practices define the organisational objectives and practices, whereas the IX team competencies is at the team level.

A trial was conducted where data from one cluster within the IX team competencies was adapted to meet the CMM structure, using the mapping defined within Figure 1 and the CMM five maturity levels.

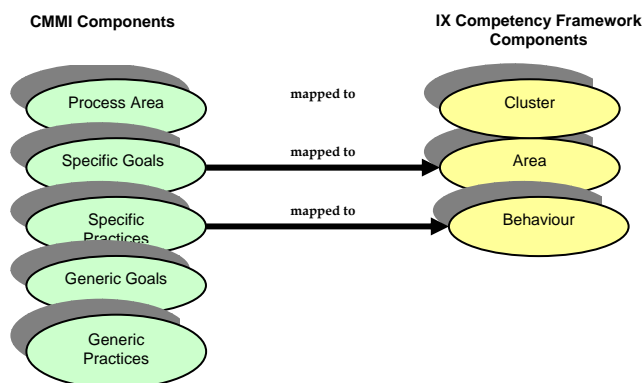


Figure 1: Mapping from CMM Structure Components to IX Team Competencies Components

Developing an IX Capability Maturity Model

The trial run adapting the data from one cluster from the IX team competencies to the CMM structure indicated that it was feasible to link the IX team competencies data to the CMM structure. Although the work is still in its infancy Figure 4 summarises the two potential iterations that could be used to develop the IX team competencies.

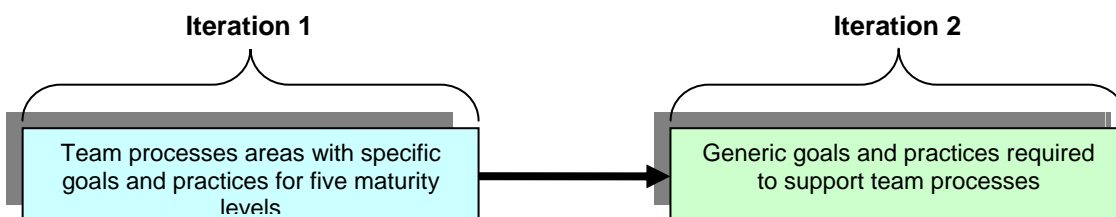


Figure 2: The Two Iterations Linking the IX Team Competencies to the CMM Structure

Developing a Structure and Team Practices

Iteration 1 indicates that at its simplest the linking the IX team competencies to the CMM structure would result in the IX team competencies having five maturity levels, with specific goals and practices linked to each maturity level. Specific goals and practices would primarily define the individual teamwork and team teamwork skills required.

Developing Institutionalisation Elements and Management Practices

Once the specific goals and practices for each maturity level have been established, the next iteration would involve defining a link between team competency and organisational competency. The link would be generated by defining the generic goals and practices required to be institutionalised to support the specific team goals and practices at each of the five maturity levels. Generic goals and practices would apply primarily to senior managers and leaders within the organisation.

To generate generic goals and practices a review of each of the team process areas and the associated specific goals and practices would have to be conducted. This would involve discussions with senior managers and leaders to identify those likely institutionalising factors.

This review would identify the generic goals and practices required to be institutionalised for each maturity level to ensure that the team specific goal and practices under the process area could be adopted.

Integrated Assessments and Gap Analyses

Once iterations 1 and 2 are completed an integrated assessment of the organisation's and team's maturity could be conducted.

Prior to the assessment the required maturity levels of the organisation and the team would have to be defined.

The assessment would then establish the actual team and organisational maturity levels and therefore whether there was a gap between the required maturity and the actual maturity.

This assessment would also identify whether that gap lay at the team or at the organisational level. Any gap in the maturity of the organisational processes and practices should be addressed to ensure that the organisation is able to consistently support the required level of team performance.

Conclusions

The levelling within competencies that would result when the IX team competencies are linked to CMM is not unique [5]. But using the industry standard CMM maturity taxonomy to level the IX team competencies would ensure consistency in how the maturity levels are defined.

A blocker to the transfer of the IX team competencies trained may be found at the organisation level, especially if the war fighting or business organisation is not sufficiently mature, in terms of its structure, culture, technology, people and processes to enable the subsequent development and deployment of newly acquired team competencies. The linking of the IX team competencies to the CMM structure would help to ensure that the organisational improvement actions needed to enable the deployment of IX team competencies, particularly at the management or leader level, were made explicit.

References

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