Systems Approach to Training Improvement

"Human beings who are almost unique in having the ability to learn from the experience of others, are also remarkable for their apparent disinclination to do so"

Douglas Adams
The Hitch Hiker's Guide to the Galaxy

Abstract

The Joint Warfare Centre (JWC) is responsible for implementing concepts and doctrine related to NATO transformation. The NATO Response Force (NRF) is the centerpiece of NATO transformation. JWC plans and directs NRF operational level exercises to enable this transformation process.

Planning of operational level NRF exercises starts with specific Training Objectives (TO). These TOs provide the foundation to develop simulated events and storylines within a given exercise scenario. Experienced Observer/Trainers (OT) monitor and assist the training audience throughout the exercise and provide critical observations that assess training audience achievements. These observations are collected and analysed to determine root causes, trends, doctrinal voids, and opportunities for experimentation or new concept development. By fully utilising the feedback gained from these exercises, JWC becomes the learning organization that drives NATO transformation. Analysis techniques and processes are therefore being developed to enhance and improve the quality of the observations made and to convert them from information into knowledge.

This paper demonstrates with examples the impact that operational research has had in the design of an exercise training system that starts with training objectives, develops simulated storylines for exercise play, and transforms observations from the exercise into tangible actions for improvement. These actions directly support NATO transformation through the continuous improvement of JWC's ability to deliver operational level exercises.

Introduction

The Joint Warfare Centre (JWC) was activated in October 2003. It's role has evolved over time but has settled now in being responsible for implementing concepts and doctrine related to NATO transformation. The main vehicle JWC uses for undertaking this challenge is exercises. JWC has become the NATO leader in planning and executing joint level exercises and as such, has created an environment through which transformation can be executed.

One of the key aspects of transformation of any organisation is the ability to be a learning organisation. Without being a learning organisation, innovation is difficult to achieve and the organisation is at risk of stagnation. Transformation means adopting an attitude that seeks to innovate and

experiment – it rewards considered risk taking – to develop relevant capability quickly.

The process of learning lessons from activities conducted and the ability to integrate the Recommended Actions (RA) back into daily business is a process that can help create the learning organisation thus creating the environment in which transformation can occur.

JWC is uniquely placed within NATO in terms of position, expertise and mission to promote the value of identifying lessons that impact across NATO commands and to propose methods of integrating them through the training environment created by JWC. The challenge, as ever, is creating a process that everyone understands to enable this to happen.

The Joint Warfare Centre

The JWC is a subordinate command to ACT (Allied Commande Transformation). JWC is supported by two other commands: JFTC (Joint Forces Training Centre) and JALLC (Joint Analysis and Lessons Learned Centre). JFTC works at a more tactical level in providing training, and the JALLC provide the ability to observe NATO business (including operational missions) and identify lessons that could be learned across the NATO force structure.

JWC work falls into 5 lines of operation as shown in Figure 1**:**

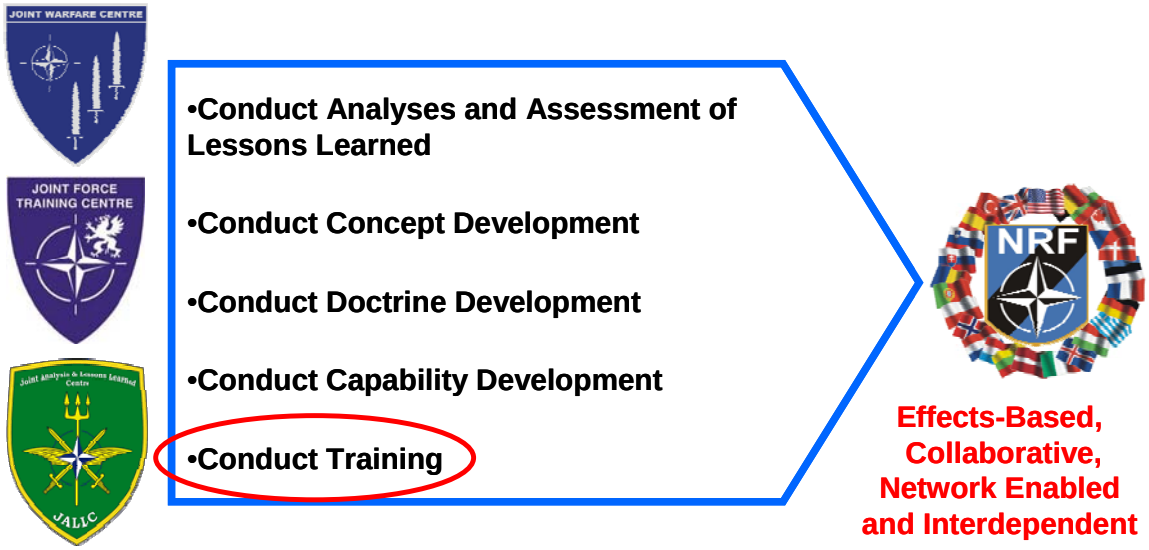

Figure 1 – JWC Lines of Operation

The last one, conduct training, is the enabler or engine that drives the other 4 lines of operation forward. This has traditionally been the focus of JWC work, however the focus is now shifting. As JWC settles into its transformational role the other 4 lines are becoming more and more important. As you can see the lines all lead towards an endstate that is related to the NATO Response Force (NRF).

The NATO Response Force

The NATO Response Force (NRF) is the centerpiece of NATO transformation. The NRF can be defined as follows:

1. A robust and credible high readiness force, trained and certified as a joint combined arms team, capable of deploying quickly to participate in the full spectrum of NATO missions, wherever required by the North Atlantic Council (NAC)."

2. "A catalyst for focusing and promoting improvements in the Alliance's military capabilities and interoperability, and as a test-bed for future experimentation with future concepts and doctrine.

As can be seen from the above dual definition, the NRF is a concept developed to enable the quick deployment of forces worldwide. NATO as an alliance has the additional complications of generating forces each time they have to deploy, the NRF concept resolves this problem by forcing nations to commit resources to the NRF at least 1 year ahead. Training of the NRF is therefore a key aspect of maintaining their readiness and deployability at short notice. To this end, JWC plans and directs NRF operational level exercises that enable NRF readiness. In addition, the second part of the definition above permits the use of NRF training to serve as a vehicle from which to implement transformation.

This dual definition adds increased complexity in that feedback from NRF is not limited to just the capability of the NRF, but also includes a complicated web of analysis touching on many different angles of capability improvements. It is this complicated web that needs to be considered in any approach to training improvement. Further, there is the additional complication that there is a short timeframe between NRF exercises. This means that lessons identified need to be converted to improvements rapidly.

Training Improvement

Like every other aspect of military operations, the provision of training itself can always be made more efficient or even effective. Often the training improvement capability is confused with training audience assessment; in reality training improvement is a process that can be used to enhance training audience assessment, but not vice versa.

By taking a systems view of the provision of training it is possible to identify areas for further analysis but place them firmly in the context of the system. This should enable the translation of Concepts, Doctrine, Experimentation and Lessons Learned (LL) into actionable transformational output.

Planning of operational level NRF exercises starts with specific Training Objectives (TO). These TOs provide the foundation to develop simulated events and storylines within a given exercise scenario. Experienced Observer/Trainers (OT) monitor and assist the training audience throughout the exercise and provide critical observations that assess training audience achievements. These observations are collected and analysed to determine root causes, trends, doctrinal voids, and opportunities for experimentation or new concept development as well as informing dynamic scripting in the exercise itself.

Recommendations and observations are provided to the TA verbally during a Mid Exercise Review (MER) and After Action Review (AAR), a written record is then circulated one week after the exercise. This enables some integration of lessons internally within the Command Structure in the short timeframe between exercises.

Lesson Identification and Observation Analysis

The Analysis of observations is a key aspect of creating a learning organisation. It is the one step that translates observation into actions that can contribute to improvements both internally and within the chain of command i.e. converting information (observations) into knowledge (by creating actions that allow other organisations to learn).

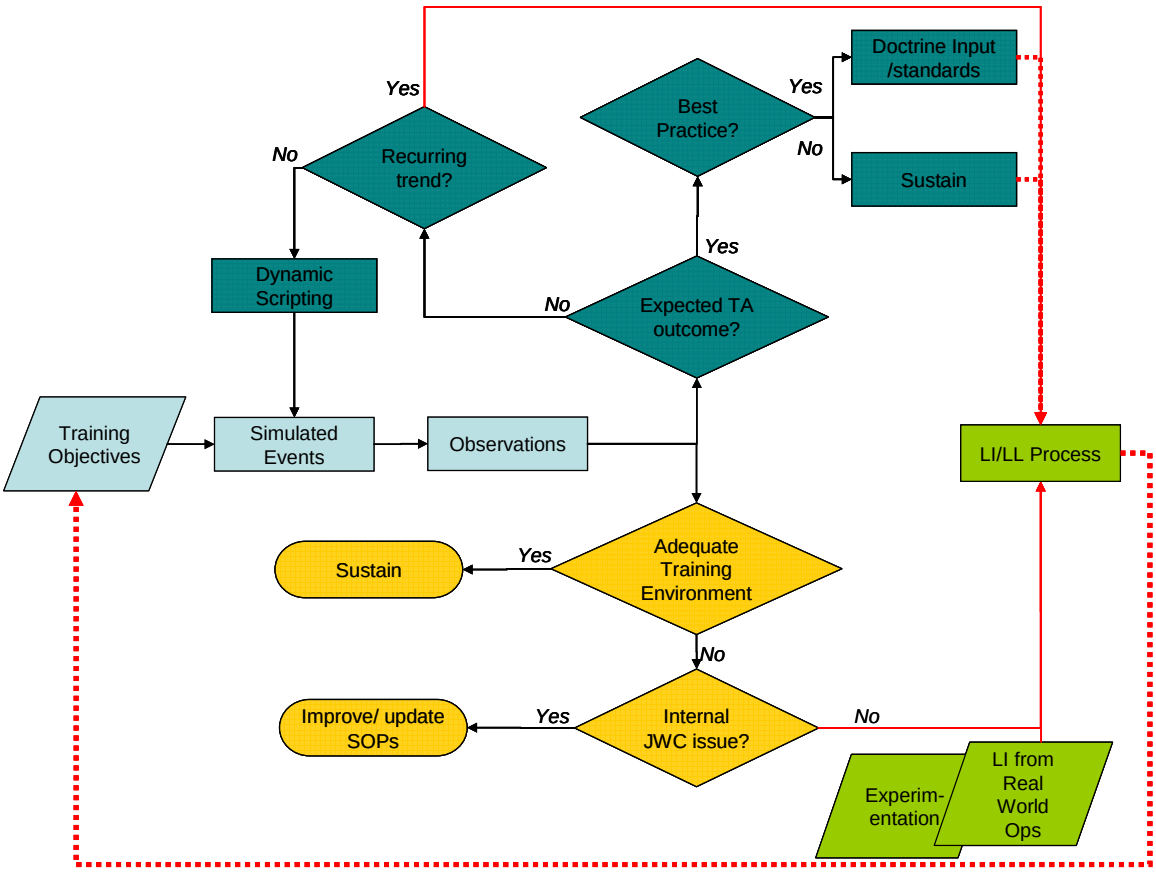

Figure 2 – Training Delivery Process

The observations are made, in general, by Observer Trainers (OTs) and include both observations related to the Training Audience (TA) and Training Improvement (TI). Analysts should also make training improvement observations based on comparison with a predetermined process or concept. In practice the observations range in detail, level, value, description and focus when related to identifying lessons. They therefore need to be filtered to ensure that they are related to the training environment and the yellow portion of the diagram represented in Figure 2. Another way to pre-filter the observations is to ask OTs to make observations based on distinct categories e.g. in relation to the resources available to trainers in the field; these could be associated with Training Improvement Objectives. The analyst then makes an assessment as to whether it is an internal JWC issue or one that is for wider distribution to the NATO community.

If the issue is internal then it can be fixed via taskers or SOPs. If it is a wider issue then it should enter the larger Bi-SC (Bi-Strategic Command i.e. SHAPE and SACT) Lessons Identified Process. This is detailed in Figure 3 below.

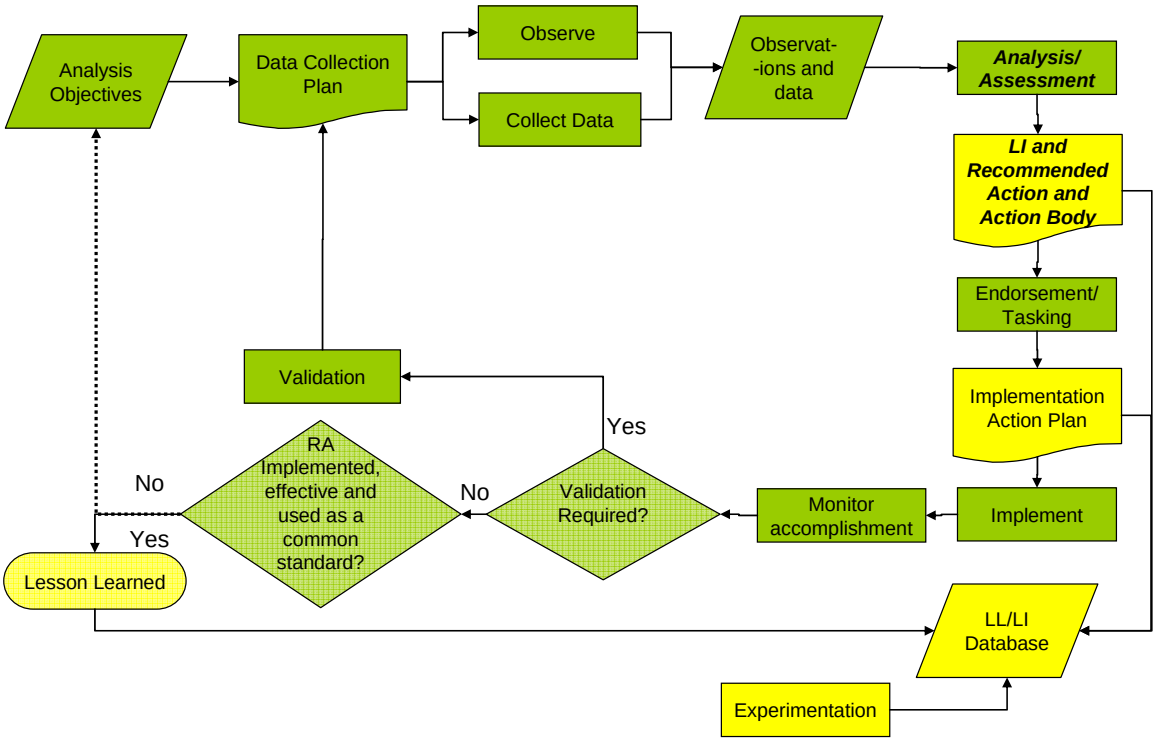

Figure 3 – Lessons Learned Process in NATO

The BI-SC Lessons Learned Process

Figure 3 illustrates what is commonly known as the NATO LL process. The word NATO in this expression is misleading as the process is run exclusively between the Strategic Commands. It does not include Nations, NATO agencies or NATO procurement organisations. It does however offer a

mechanism for operational standardisation and interoperability by making Lessons Identified transparent to all involved in the NATO command structure. What is not clear is the link demonstrated in Figure 2 between the LL process and the Training Delivery Process via TOs. This relates both to observations or lessons identified based on TA performances and to observations related to lessons identified based on TI issues.

The objects in yellow in Figure 3 represent those documents or processes that have an input into the LL/LI database. The database is a management tool to track and store lessons so that implementation of Recommended Action (RA) can be assessed and ensured in a transparent fashion - especially when the Lessons cut across many Command Structures.

Combining the Training Delivery and Lessons Learned Processes

There is scope to integrate aspects of the LI/LL process with the exercise delivery process in order to generate a powerful tool to implement both transformation via both training improvements and TA lessons identified.

Figure 1

Figure demonstrates how the two processes can be combined by using the Training objectives and Experimentation objectives to initiate change in the NATO command structure via the NRF exercise process. This combination is not suitable for all types of LI. It does however illustrate how the NRF can be:

“A catalyst for focusing and promoting improvements in the Alliance’s military capabilities and interoperability, and [as] a test-bed for future experimentation with future concepts and doctrine”.

As well as maintaining the training and readiness required for an operational force.

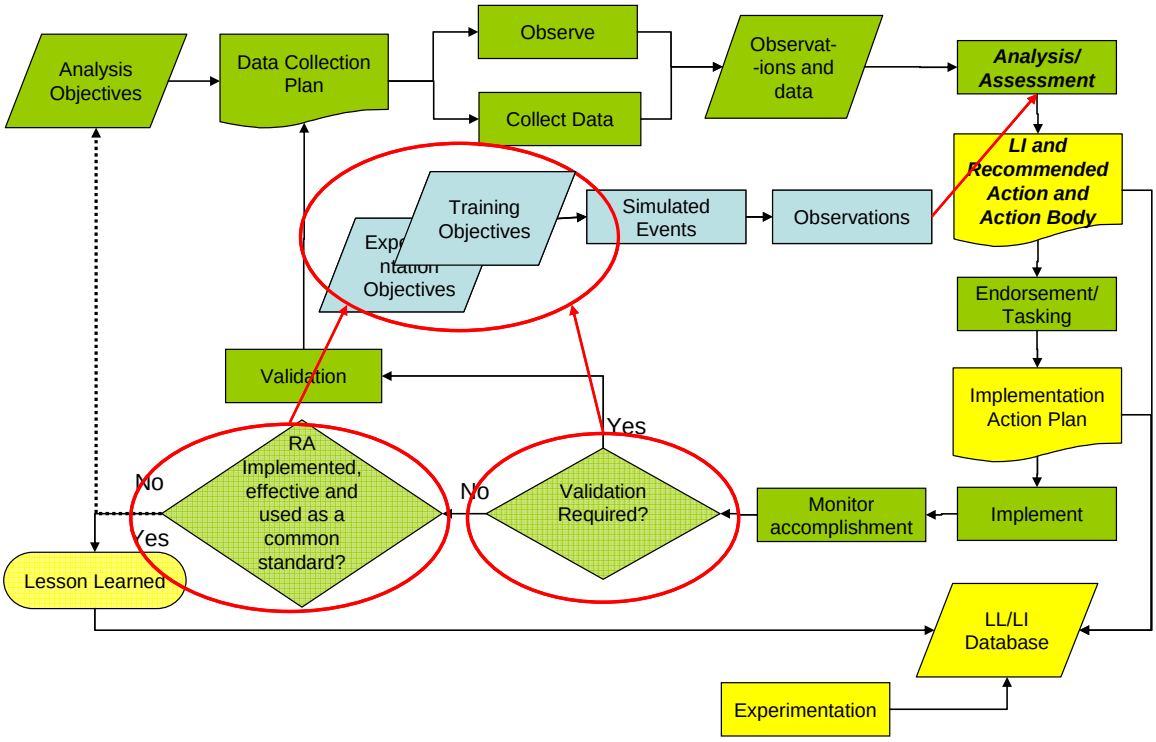

Figure 4 – Systems Approach to Training Improvement

The diagram illustrates that both the validation and the implementation of Recommended Actions can be inputs into the exercise delivery process. The input could be via training objectives, or via experimentation objectives. For this to work, there would have to be an additional subset of observations. Currently there are observations made on the TA based on their activities. Then there are observations made on training improvements, now there would also need to be observations based on the lessons being learned. This is where a consolidation of Training Objectives is required. Perhaps a move away from TO defining standard HQ actions, to TO that really focus the exercise in both training the NRF and introducing transformational concepts either via LL or via integration of new concepts.

The Purpose of Identifying Lessons

This might seem obvious to some, however as the Douglas Adams quote above implies, Lessons Identified do not automatically mean that Lessons are Learned or knowledge is transferred. There is an outline structure to give the Lessons Identified a purpose. This is shown in Figure 5. The operational capabilities can be considered equivalent to effects that need to be achieved.

In reality these categories must be broken down further in order to be able to classify and direct observations to feed the LL process. The outcome is what is of interest here.

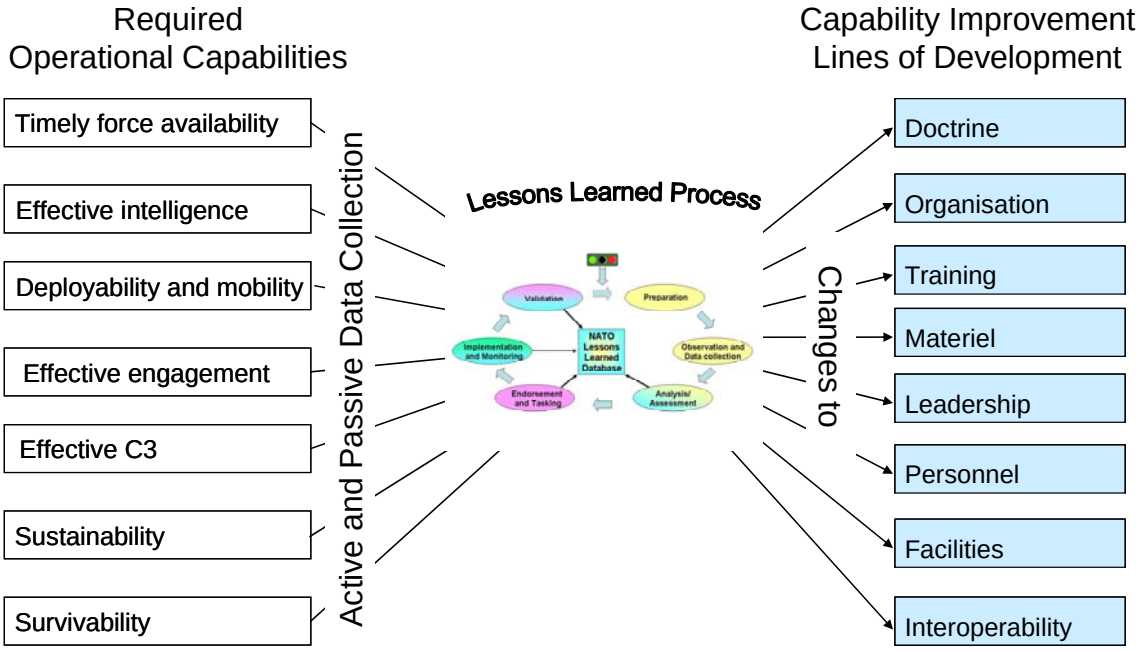

Figure 5 – The DOTMLPFI Structure for Lessons Identified

Recommendations in nearly all of the lines of development could be implemented via the training offered by JWC (a good example of this was the testing of the Joint Logistics Support Group (JLSG) concept during Exercise Steadfast Jackpot 2006). In turn, the Training Improvements should relate to the 'Training' Line of Development. Training Improvements should therefore only be implemented if they indirectly or directly improve the operational capabilities of the TA.

It is this type of logic, based on the training system that will help improve the way training improvement is implemented into the exercise delivery process, that provides a more robust mechanism from which to apply transformation.

Conclusion

The integration of the training delivery process and the lessons learned process offers the opportunity for JWC to become more focused towards transformation tha it currently is. This systems approach also ensures that training improvements are treated in the same way as lessons learned due to the fact that they contribute to one of the Capability Improvement lines of development (Figure) that in turn contribute to improving the operational capabilities within NATO.

NATO is constructed of many complicated and often bureaucratic processes. Taking a systems view rather than a traditional simplified (or blinkered) view in this context provides more scope for initiating improvements at the organisational level.