



New Zealand
**DEFENCE
FORCE**
Te Ope Kātua O Aotearoa



**A FORCE FOR
NEW ZEALAND**

New Zealand Defence Doctrine Publication

**CONTINUOUS
IMPROVEMENT:
LESSONS
LEARNED**
NZDDP-8.1

CONTINUOUS IMPROVEMENT: LESSONS LEARNED (NZDDP-8.1)

New Zealand Defence Doctrine Publication *Continuous Improvement: Lessons Learned* (NZDDP-8.1) is issued for use by the New Zealand Defence Force and is effective forthwith for guidance in defence doctrine.



K.R.Short
Air Marshal
Chief of Defence Force
Headquarters New Zealand Defence Force
Wellington

November 2019

CONDITIONS OF RELEASE

The information within this publication is Crown copyright.

No material or information contained in this publication should be reproduced, stored in a retrieval system or transmitted in any form outside New Zealand Defence Force establishments, except as authorised in writing by the New Zealand Defence Force.

The information may be released by the New Zealand Defence Force to a recipient Defence Force for defence purposes only. It may be disclosed only within the recipient Defence Force, except as otherwise authorised by the New Zealand Defence Force.

© New Zealand Defence Force 2019

Introduction

AUTHORISATION

Headquarters New Zealand Defence Force is responsible for publishing doctrine and maintaining a hierarchy of such publications. Users wishing to quote New Zealand doctrinal publications as reference material in other work should confirm with the Deputy Director Doctrine whether the publication and amendment state remain extant. Comments on the factual accuracy or proposals for amendment should also be directed to the Deputy Director Doctrine at:

The Doctrine Cell
Directorate of Future Force Development
Headquarters New Zealand Defence Force
Defence House
34 Bowen Street
Wellington
New Zealand

DTelN: 349 7477
Telephone: +64 4 496 0477
Facsimile: +64 4 496 0699
Email: nzdf.doctrine@nzdf.mil.nz
NZDF intranet: <http://www.nzdf.mil.nz>

CUSTODIAN

Commander Joint Forces New Zealand
Headquarters New Zealand Defence Force

PREFACE

Scope

New Zealand Defence Doctrine Publication *Continuous Improvement: Lessons Learned* (NZDDP–8.1) describes both the theory and the application of processes needed to learn from the lessons of the past and present, therefore helping the New Zealand Defence Force (NZDF) to successfully meet the challenges of the future.

Purpose

Doctrine is defined as the fundamental principles by which military forces or elements thereof guide their actions in support of national objectives; it is authoritative, but requires judgement in application. NZDDP–8.1 broadly describes the foundations, application, and some procedural aspects of the lessons learned process and supersedes the Headquarters Joint Forces New Zealand (HQJFNZ) *Lessons Handbook* (Version 1.0).

Application

The philosophy and application of the lessons process detailed in this publication is a proven enabler. It is intended to be adaptable as an enabler for all single Service activities, and for use by NZDF personnel at all levels.

Structure

NZDDP–8.1 is divided into six chapters:

- Chapter 1 – *Continuous Improvement: Lessons Learned* provides an overview of the foundations, principles, and management of lessons learned in the NZDF.
- Chapter 2 – *Collect* describes active and passive observation collection.
- Chapter 3 – *Analyse* provides detail of methodology and processing of data.
- Chapter 4 – *Decide* covers the report writing and standards and content.
- Chapter 5 – *Implement* describes what steps are taken by authorities to ensure lessons are actioned.
- Chapter 6 – *Validate* is the process to confirm lessons have been embedded.

ACKNOWLEDGEMENTS

The New Zealand Defence Force acknowledges its intellectual debt in preparing this publication to a number of military doctrinal publications, listed below.

- *The NATO Joint Analysis Handbook*, 4th Edition, February 2016, Joint Analysis and Lessons Learned Centre, Lisbon, Portugal.
- *The NATO Lessons Learned Handbook*, 3rd Edition, February 2016, Joint Analysis and Lessons Learned Centre, Lisbon, Portugal.
- Canadian Forces Joint Publication CFJP A2 *Lessons Learned*, 1st Edition, April 2015, Ottawa, Canada.
- New Zealand Defence Force Joint Doctrine Note 1/12, *Systems Approach to Learning*, 2012, Wellington, New Zealand.
- *A Leaders Guide to After Action Reviews*, US Army Training Circular, 25-20 September 1993.
- *Guide to the After Action Review: Using Evaluation to Improve Our Work*, US Combined Arms Centre (Training), October 2010.
- *The Leader's Guide to After Action Reviews*, US Combined Arms Centre (Training) extract, December 2013.
- *Concise Oxford English Dictionary*, August 2011, Oxford University Press, London, United Kingdom.

CONTENTS

	Page
Title Page	i
Authorisation	ii
Preface	iii
Acknowledgements	iv
Contents	v
List of Illustrations	vii
Executive Summary	viii
Chapter 1: Continuous Improvement: Lessons Learned	1
Introduction	3
Lessons Learned and Continuous Improvement	3
Continuous Improvement Policy	3
Foundations of Lessons Learned	3
Lessons Learned Management	4
Lessons and Evaluation	5
Principles of Lessons Learned	5
Lessons Learned Cycle	6
Military Capability	6
Chapter 2: Collect	9
Introduction	11
Active Collection	11
Passive Collection	15
After Action Review	15
Chapter 3: Analyse	21
Introduction	23
Analysis Methodology	23
Analysis of Data	24
Observation Content	25
Processing Observations	25
Chapter 4: Decide	27
Introduction	29
Report Writing	29
Observation Status	30
Continuous Improvement Decision Group	30
Chapter 5: Implement	31
Introduction	33
Categories of Change	33
Continuous Improvement: Lessons Learned	v

Introduction

Chapter 6: Validate	35
Introduction	37
Reporting Requirements	37
Glossary	38
Terms and Definitions	38
Acronyms and Abbreviations	39
Index	40

LIST OF ILLUSTRATIONS

Figure	Page
1-1 The lessons learned cycle.	6
2-1 The after action review cycle.	16
2-2 The after action review planning steps.	18
3-1 Deductive reasoning flow.	23
3-2 Inductive reasoning flow.	24

EXECUTIVE SUMMARY

Chapter One: Continuous Improvement: Lessons Learned

The New Zealand Defence Force (NZDF) requires a robust process to understand previous successes and failures as well as how to use this data to improve the organisation. The NZDF identifies with the requirement and value of sharing information and lessons gained during operations, training, and exercises. The term 'continuous improvement' covers a range of different activities the NZDF undertakes in order to improve its effectiveness as an organisation. The opportunity to learn is the basis for sharing information gained during operations and exercises as widely as possible across the NZDF. J8 Branch is recognised as the NZDF lead practitioner in lessons learned with its mission to drive and embed the changes from lessons learned in military operations, training, and exercises. The concept of lessons learned is that through a formal approach to learning, individuals, and organisations can reduce the risk of repeating mistakes and improve the chance of greater success. The NZDF uses a globally validated model for the analysis and design of defence learning requirements known as the systems approach to learning (SAL). This methodology is the mandated process for the creation and delivery of all individual learning in the NZDF.

Chapter Two: Collect

Objective observations are the foundation of lessons learned. Active collection is related to an analysis objective and involves direct interaction with the activity being analysed. Interviews are the most effective technique for gathering data. Interviews can be conducted in three ways: structured, semi-structured, and informal. Passive collection is related to an analysis objective and does not involve interaction with the activity being analysed. The post activity report (PAR) is the key method of reporting activities and observations and is normally submitted through the NZDF lessons

database. The drive to embed lessons learned is strengthened through teams continuously assessing their performance to identify and learn from successes and failures, the after action review (AAR) is a simple but extremely effective tool to help achieve this. There are two types of ARR: formal and informal.

Chapter Three: Analyse

Analysis is considered a significant phase of the lessons learned process because the remaining phases are built on its outcomes. There are two broad methods of reasoning that can guide analysis: deductive and inductive. The aim of successful analysis is identifying patterns or trends by understanding the data available and being able to accurately summarise what it is signifying. Involvement of an SME will further help the analyst to draw logical, factual, and workable conclusions from the exploration of data but there are occasions when an observation needs more extensive research and consultation of other reference material. This should include, but is not limited to, planning documents and guidelines, command directives, standard operating procedures (SOP), and previous analysis reports. The result of a well planned lessons collection activity (LCA) will generally produce a significant number of observations that are subjected to a process of understanding, filtering and compiling.

Chapter Four: Decide

This chapter covers report writing, standards, and content. Target audience and key issues are two fundamental things to consider when writing a report.

Chapter Five: Implement

Implementation is defined as the process of putting a decision or plan into effect that has been triggered by an observation raised in the lessons database, key observations report, or as a continuous improvement

decision group (CIDG) outcome. This is the phase of the lessons learned process that is undertaken by the authority charged with taking action and making changes in order to embed lessons learned into an organisation. Implementation of observations can be generally categorised into four areas – policy, military doctrine, planning, and training.

Chapter Six: Validate

The purpose of validation is to ensure that the remedial action applied in the Implementation stage has actually resolved the original issue. It is the final stage in the lessons learned cycle and is considered to be more evaluation than analysis. There is no defined template for validating a lesson as the process will be determined on a case-by-case basis.

CHAPTER 1:

CONTINUOUS IMPROVEMENT: LESSONS LEARNED





CONTENTS

	<i>Page</i>
Introduction	3
Lessons Learned and Continuous Improvement	3
Continuous Improvement Policy	3
Foundations of Lessons Learned	3
Lessons Learned Management	4
Key Factors	5
Lessons and Evaluation	5
Principles of Lessons Learned	5
Lessons Learned Cycle	6
Military Capability	6
Personnel and Individual Capability	6
Research and Development	7
Infrastructure and Organisations	7
Concepts, Doctrine, and Collective Training	7
Information and Computing Technology	7
Equipment, Supplies and Services, and Resources	7

Introduction

1.01 The New Zealand Defence Force (NZDF) requires a robust process to both understand previous successes and failures as well as how to use this data to improve the organisation. The purpose of learning from lessons is to improve future performance through the use of a command-driven tool that assists commanders and functional authorities to manage change and lessons learned within an organisation learning framework. There is no defined standard for identifying lessons but the required outcome is universally recognised – improvement.

1.02 The NZDF identifies with the requirement and value of sharing information and lessons gained during operations, training, and exercises. The Defence White Paper 2016, which was reviewed and enhanced in the *Strategic Defence Policy Statement 2018*, focuses on the Government's expectations for the NZDF over the coming decades. In terms of organisational change, collaboration across NZDF and Government agencies is crucial in order to gain results and remain fit for purpose.

Lessons Learned and Continuous Improvement

1.03 The term 'continuous improvement' covers a range of different activities the NZDF undertakes in order to improve both its efficiency and effectiveness as a military organisation. To that end lessons learned is but one aspect of continuous improvement and is more than just learning from experience; it is inextricably linked with the catalyst for change that can clearly lead to better future performance and capabilities. This change is driven by a cyclic process to deliberately collect, analyse, implement, and validate observations and recommendations from missions, including pre-deployment training, and exercises.

1.04 The opportunity to learn is the basis for sharing information gained during operations and exercises as widely as possible across the NZDF. There is also the desire to engage with military forces

from other nations, non-government organisations (NGO) and other government agencies (OGA) to support the increasing importance of coalition operations, particularly responses to humanitarian aid and disaster relief (HADR) crises across the South West Pacific. The value of the lessons cycle becomes most apparent when the information generated by the process becomes available to the personnel who need it. Information sharing generates knowledge and leads to an enduring improvement in organisational effectiveness.

1.05 J8 Branch in Headquarters Joint Forces New Zealand (HQJFNZ) is recognised as the NZDF lead practitioner in lessons learned with its mission to drive and embed the changes from lessons learned in military operations, training, and exercises.

Continuous Improvement Policy

1.06 The NZDF currently has no comprehensive continuous improvement policy as the subject covers a number of areas including Defence Excellence who seek improvements to the business processes of the NZDF through to the traditional military lessons learned function that seeks to improve operational effectiveness.

Foundations of Lessons Learned

1.07 The concept of lessons learned in an organisation is that through a formal approach to learning, individuals and organisations can reduce the risk of repeating mistakes and improve the chance of greater success. The increasing and ongoing challenges for military efficiency and fiscal constraint are linked with reduced risk, lower cost, and improved operational effectiveness.

1.08 In any learning organisation, there are three generic steps that can be applied to achieve improvement.

- **Identification.** Gathering observations from experiences

- **Action.** Changing existing methodology based on the observations
- **Communication.** Ensuring an organisation benefits from learning.

1.09 However, the lessons learned process involves greater fidelity than the three steps above and the purpose of this publication is to present the stages of the lessons cycle that have been developed and refined to best meet the needs of the NZDF.

Lessons Learned Management

1.10 The lessons learned process is intended to manage the contributions at individual, collective, and organisational levels. The NZDF lessons database is intended to manage the collection, analysis and distribution of Navy, Army, Air Force, joint, and overseas activities. It provides for the efficient banking and exchange of information to further evaluate systematic weaknesses, over a period of time, through simple trend analysis. Lessons learned is viewed as an enabler in the overarching framework to achieve the vision of an integrated Defence Force by 2025.

Key Factors

1.11 The key factors in managing lessons learned are as follows.

- **Command Responsibility.** It is essential that Commanders actively engage in the lessons learned process and prioritise resources so that lessons are identified and learned. Commanders play an important role in cultivating the lessons mind-set by promoting the lessons learned process and ensuring that, when lessons are learned—positive or negative—the outcomes are disseminated down the command chain. They must also ensure sideways collaboration with other formation commanders or organisations.
- **Insight and Forward Thinking.** Individuals or organisations observe and identify areas for improvement or successes on a regular basis. It takes the insight and forward thinking of personnel in those situations to manage the capture of

Key Terms

Lessons Learned

An improved capability or increased performance confirmed by validation when necessary resulting from the implementation of one or more remedial actions for a lesson identified.

Lesson Identified

A mature observation with a determined root cause of the observed issue and a recommend remedial action and action body, which has been developed and proposed to the appropriate authority.

Continuous Improvement

A planned ongoing process which allows an organisation to systematically review and improve the quality of its products, services and associated processes.

lessons. This can be achieved by providing personnel with appropriate training, mentoring, and experience in the lessons learned process.

- **Sharing Information.** The success of lessons learned is largely based on sharing the right information at the right time with the right people. This can be achieved through websites, briefings, information bulletins, and reports. Sharing information can significantly reduce risk, improve knowledge, and contribute to professional development. If people are not engaged then they see no value in lessons, do not actively participate and it then becomes difficult for a learning culture to develop.
- **Decision Authority.** This relates to any stage of the lessons learned process and may be a subject matter authority (SMA)—either as an agency or individual—that has the delegated authority in a given area. A decision authority may be advised by a subject matter expert (SME) with expertise in a particular field, but does not necessarily have delegated authority to make a decision. However, a decision authority works most effectively if it is

delegated to the lowest appropriate level in terms of both resource utilisation and timeliness of solutions.

Lessons and Evaluation

1.12 There are some links between lessons and evaluation but each is a distinct process in its own right. The definitions are given below.

- **Lesson.** Something that a person or organisation learns or should learn
- **Evaluation.** A systematic, objective assessment of the appropriateness, effectiveness or efficiency of an initiative, policy, project, service, function, or operation.

1.13 Lessons are derived from analysis that involves taking an issue and looking at it in different ways to develop the understanding of features or meaning in order to achieve improvements. An example would be the lack of formal policy for preventing heat-induced illnesses during deployment to hot climates. The requirement to develop appropriate policy would be directed and implemented, leading to a lesson learned.

1.14 Evaluation is the act of ascertaining or fixing the value or worth of something. An example is the evaluation of a new helicopter before it is introduced into service. Assessment would be made against criteria determined to ensure all aspects of required operational capability are met. Evaluation is what you know; it is in your area of expertise.

Key Terms

Lesson

Something that a person or organisation learns or should learn.

Evaluation

Evaluation is a systematic, objective assessment of the appropriateness, effectiveness or efficiency of an initiative, policy, project, service, function, or operation.

Principles of Lessons Learned

1.15 The lessons learned process is designed to provide stakeholders and commanders with a proven method to implement change in the planning and execution of activities. The process is underpinned by the following principles.

- **Leadership.** Commanders and senior leaders must be involved in the lessons learned process as without them, the authority to task their own or other organisations to work on and implement identified issues are likely to fail.
- **Learning.** Embedding change is a learning process in its own right and the lessons learned process is adaptable as a common platform for all NZDF elements.
- **Accountability.** This is the cornerstone of the lessons learned process. It is essential that those elements assigned to implement and validate change remain accountable for their actions.
- **Prioritisation.** It is important that issues requiring action are given the necessary priority and resources. This helps ensure they are embedded as a lesson learned. Identifying a problem without taking action will inevitably result in the same issues being raised during future activities.

Lessons Learned Cycle

1.16 The NZDF uses a globally validated model for the analysis and design of defence learning requirements known as the systems approach to learning (SAL). This methodology is the mandated process for the creation and delivery of all individual learning in the NZDF. The lessons learned cycle is shown at Figure 1-1.

1.17 This model has been adapted to suit the lessons learned process in order to expand the three generic steps towards improvement. The aim is to provide a system in which observations and best practices are identified and if necessary, taken through the cycle to ensure issues are successfully validated and resolved.

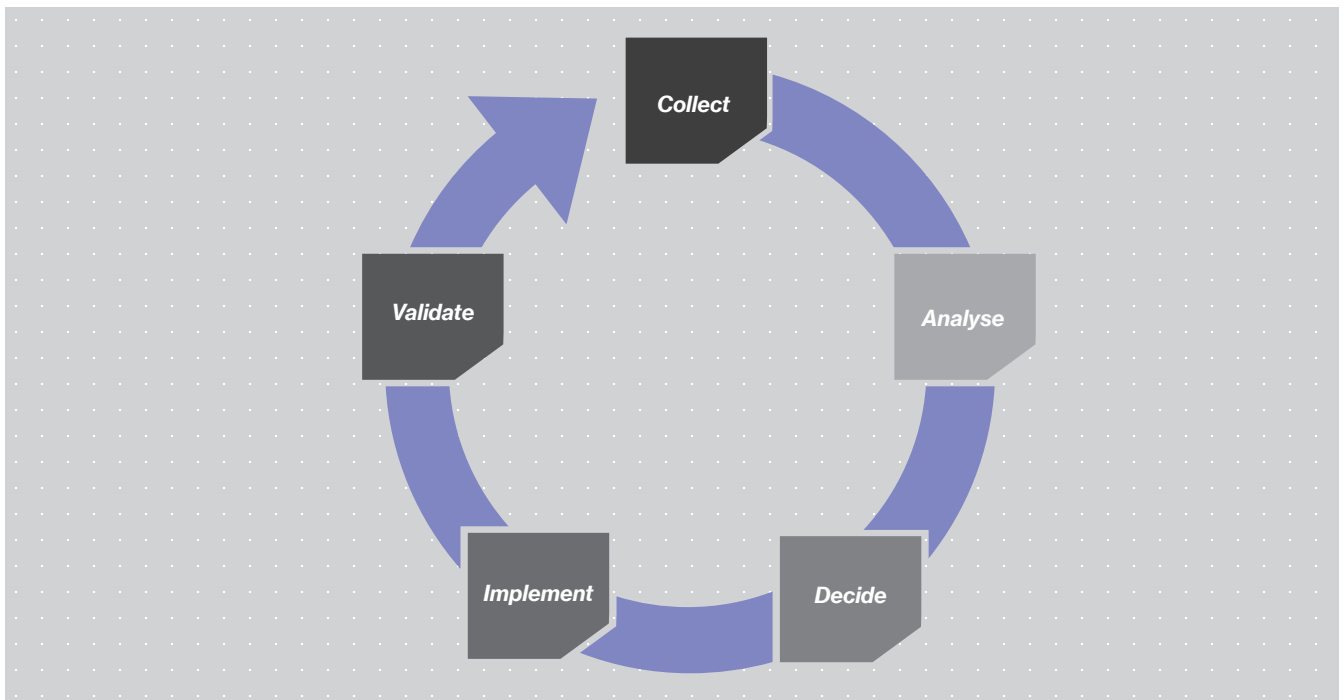


Figure 1-1: The lessons learned cycle.

1.18 A simple description of each stage in the cycle is outlined below.

- **Collect.** Data is collected in the form of an observation
- **Analyse.** Analysis is conducted to fully understand the observation
- **Decide.** Decisions get made to take action and assign responsibility
- **Implement.** Nominated action authorities progress an issue
- **Validate.** Whether or not change has been implemented or not is confirmed.

1.19 These stages are discussed in greater detail as individual chapters.

Military Capability

1.20 The purpose of military capability is the ability to achieve a desired operational objective in a selected environment, and to sustain that effort for a designated period. The findings and outcomes of the lessons process have a level of influence on current

and future capability so it is important to understand the components of capability as detailed in the NZDF capstone doctrine publication.¹

1.21 Military capability goes beyond just equipment and includes all necessary components that together enable a military force to successfully achieve an operational objective or task. In the NZDF, the military capability of a force is measured by preparedness and the components described by the term personnel, research and development, infrastructure, concepts and doctrine, information technology, equipment, and logistics (PRICIE).

Personnel and Individual Capability

1.22 Operational capability is delivered through people, who are the single component with the ability to generate value but are the most challenging element to acquire, manage and change. Collecting observations related to knowledge, skills and attitude, and the associated support to ensure personnel meet the required capability is important.

¹ NZDDP–New Zealand Defence Doctrine (4th Edition).

Research and Development

1.23 This is considered as the 'engine for change' in the ongoing modernisation of the NZDF, as the organisation must be both a smart buyer and user of technology to ensure that it maximises the effectiveness of its limited assets. Defence Technology Agency (DTA) is the prime provider of research and development support to the NZDF and sharing lessons ensures the best outcomes are achieved.

Infrastructure and Organisations

1.24 Infrastructure includes buildings, structures, property, plant equipment, and training areas. If such assets intended for use do not meet the requirements of a mission, these can be validated through the lessons learned process and changes can be implemented. Organisation is linked with the personnel component in that the correct structure has been deployed to accomplish its tasks, and adequate command and control arrangements are in place.

Concepts, Doctrine, and Collective Training

1.25 Concepts are the way in which we believe the NZDF will operate in the medium to long-term future; doctrine provides the fundamental principles guiding the current operation of military forces; collective training applies laterally across joint and single-Service elements, and vertically down to unit levels. All these elements have varying levels of impact on operations although concepts and doctrine is likely to be quite a low priority, but there is still a need to ensure that reference documents are up to date and reflect changes as appropriate.

Information and Computing Technology

1.26 Effective information management cannot be achieved without properly deployed and managed communications and information systems. They are an essential part of military operations providing commanders with the ability to exercise command and control. Information management is constantly evolving and it is important to ensure that issues raised during a mission are thoroughly investigated. Observations identifying problems with information flow continue to be frequently raised during collection activities.

Equipment, Supplies and Services, and Resources

1.27 Equipment covers everything required to operate and support deployed platforms and systems; supplies and services includes the logistical and administrative support to operational activities, deployed and non-deployed; resources includes the financial and non-financial assets the NZDF requires to meet operational and output commitments to the New Zealand Government.



CHAPTER 2:

COLLECT



CONTENTS

	<i>Page</i>
Introduction	11
Active Collection	11
Collection Timing	12
Interviews	12
Passive Collection	15
Post Activity Report	15
After Action Review	15
The After Action Review Cycle	16
Planning	17
The Report	19
Types of After Action Reports	19

Introduction

2.01 Objective observations are the foundation of learning lessons. Collecting data is the fundamental element that informs the process and it should take place across all services at individual and group levels. All New Zealand Defence Force (NZDF) personnel, military and civilian, are responsible for identifying, learning and sharing lessons with the rest of the organisation.

2.02 **Active Collection.** Conducted by designated personnel and is usually linked to a command-driven task with a precise focus. Staff will collect observations through interviews of personnel in a theatre of operations. This is considered the most productive method of collection because it results in the views of individuals being recorded without any influence from others. This process is referred to generically as a lessons collection activity (LCA).

2.03 **Passive Collection.** Relates to the gathering of observations and data through information provided by individuals or units. There is no specific area of focus and information is extracted from reports and observations entered into the lessons learned database. Effective passive collection requires personnel to submit feedback to lessons staff, which relies on a mature learning culture where individuals are committed to sharing insights and experiences. This is achieved mainly through the use of the post activity report (PAR) or situation reports (SITREP) lodged in the NZDF lessons database.

Key Terms

Active Collection

Data collection that is related to an analysis objective and involves direct interaction with the activity being analysed.

Passive Collection

Data collection that is related to an analysis objective and does not involve interaction with the activity being analysed.

Active Collection

2.04 The planning and preparation necessary to conduct an LCA is the key to gathering observations that are relevant to the task without any pre-conceived ideas. The aim of an LCA is to engage personnel in a discussion, using focused questions designed to influence the gathering of critical information.

2.05 The pivotal step is conducting the interview but there are a number of elements that should be addressed during planning to ensure a successful outcome.

- **Identify.** The initial step of the collection process is to identify a mission, exercise, or capability likely to yield lessons that lead to the evolution of best practises through learning. This could also be determined by command direction of particular themes or processes that the lessons collection team (LCT) should focus on. The LCT should comprise a team of three personnel and is charged with collecting, recording, and logging observations.
- **Consult.** Discussions with organisations and personnel to determine what subject matter should be covered in the interview questions. This is a crucial aspect of collection planning as the detail formed at this stage will ensure the success of the remaining elements.
- **Build.** Draft the question bank and circulate back to subject matter experts (SME) in order to certify the content. The finalised questions are normally sent into theatre for distribution to all personnel being interviewed. This provides the opportunity to review and understand what may be asked of them in advance of the interview, and helps to generate more comprehensive answers.
- **Execute.** The LCT schedules interview timings with the mission before departing from New Zealand although this is always subject to change depending on the mission priorities.
- **Collect.** Interview responses must be accurately recorded to ensure clarity of an issue. The recorder

has a responsibility to interject during the course of an interview if necessary to ensure an accurate account of the observation is documented.

Collection Timing

2.06 Experience has demonstrated that the most productive time to gather observations from an LCA is approximately two thirds of the way through a single rotation. Any later tends to conflict with preparations for returning to New Zealand and personnel are naturally more focused on going home than discussing observations. Any earlier and there may be areas of focus that have yet to be fully exploited by the mission, which could result in a lack of substance to process the observation further. There are other factors that will complicate the collection. Most notably is that the individuals the LCT intend to interview do not have the same priorities as the LCT, particularly as their mission takes a higher priority.

Interviews

2.07 Interviews are the most effective technique for gathering data. Face to face conversations with an individual have far greater flexibility than written reports and observations as they allow for additional information to be sought on the spot. Sufficient information must be gathered to support analysis of an issue that has enough substance to result in a lesson learned.

2.08 An interview provides the opportunity for an individual to talk frankly in response to questions directly related to their experiences that will help identify and correct deficiencies, or maintain strengths. It is not considered to be a complaint or evaluation session and the interview is normally conducted on a one-to-one basis to ensure there is no opportunity for senior personnel to dominate or over-rule comments made by individuals. There will be occasions when an interview can be conducted with a small group of personnel but in order for the outcome to be productive, numbers should be limited to four or five of similar rank and trade where possible.

2.09 There will always be personnel who feel uncomfortable about participating in interviews for the fear of being blamed for mistakes or performance shortcomings during the course of an operation or mission. It is entirely natural that individuals are not comfortable with having any weaknesses uncovered or attributed to them that may damage their own standing. This is the fundamental reason for applying anonymity to interviews. The collection of lessons must be recognised as a process focused on learning rather than apportioning blame.

2.10 **Interview Principles.** The following interview principles are applied regardless of size or complexity.

- **Trust and Confidentiality.** Personnel being interviewed must be able to trust that what they say in response to questions will not result in any adverse consequences for them. There will be occasions when the observation made is of such significance that it will need further investigation and to ensure the origin can be traced, it may be prudent to record the service number of an individual making the observation in the collection database. Much like a census, details are not released to any third party regardless of rank or status and it is critically important that this concept is explained as part of the preamble for all interviews. The interviewee should be left in no doubt that confidentiality will be maintained.²
- **Thoroughness.** The role of the LCT is to record all observations regardless of content. Generally, observations will not be screened until the analysis phase although there will be occasions when an issue raised can be resolved by mutual agreement in theatre with the commander of the mission. This action will help reduce the number of issues having to be addressed at the decide stage, but there remains a need to record the outcome so that the issue is documented as a lesson learned.

² If personal information is recorded, then the individual must be made aware of the purpose that the information is being collected and the intended recipients of the information. (S 6, Principle 3 Privacy Act 1993). There must also be reasonable security safeguards in the storage of personal information to prevent loss, access or other misuse (s 6, Principle 6, Privacy Act 1993).

Chapter 2

- **Impartiality.** Every person has inbuilt biases based on their background, experiences, and opinions. There is potential for the interviewer, and even the interview recorder, to more readily identify issues that align with their particular biases and therefore may be more likely to dismiss those that do not. Collection teams must recognise this characteristic and remain open to gathering and recording the wide range of opinions and observations that is likely to emerge from interviews.
- **Participation.** The success of an interview depends on the skill of the interviewer, who should be prepared to diversify and adjust the path of questioning during the course of the interview in order to extract maximum results. The aim is to keep the individual interested in order to solicit observations both positive and negative in nature.

2.11 **Type of Interview.** Interviews can be conducted in one of three ways: structured, semi-structured, and informal. Deciding which approach to take depends on what data needs to be captured. Every interview will be different and every person interviewed will offer a unique response.

- **Structured.** Identical questionnaires are used for each interview. There is no distinction between rank and experience of the individual being interviewed and this has a direct impact on the quality of responses. There is the potential for this type of data to be collected simply by creating a formatted questionnaire for individuals to complete, much like a survey response.
- **Semi-structured.** A list of themes or leading questions to be covered is devised but this is used as a guide and is likely to vary depending on who is being interviewed. This style requires greater focus by the interviewer as there is more variability open to them in order to elicit information. Under this format, there is the likelihood of the interview developing along lines that may not have been considered during planning and could provide some unpredictable observations.
- **Informal.** Interviews are conducted as a general discussion and have no pre-determined lists of questions, which gives the interviewer a degree

of flexibility to explore any angles of interest. This style of interview is difficult for an inexperienced individual to conduct especially if there is no guide to subject material outside the interviewers' expertise.

2.12 **Building a Question Bank.** A semi-structured interview is considered the most appropriate and commonly used as it provides the optimum method of gathering multiple perspectives at strategic, operational and tactical levels. However, there is an art to building a question bank that supports the semi-structured approach, which is through the use of open-ended questions.

2.13 An open ended question is one that gives the interviewee an opportunity to elaborate their answer; a closed-ended question can only be answered with a *yes* or *no*. An example of a closed-ended question is *Has this mission expanded your knowledge of processes and procedures?* The interviewee may answer 'yes' but unless the interviewer probes further, there is no indication of how their knowledge was expanded, in what areas and most importantly, no identifiable lessons learned. It would be better to ask *Can you tell me how the mission has expanded your knowledge of processes and procedures?* The response is more likely to provide the interviewer with the detail needed to inform strong analysis.

2.14 **Interview Classification.** It is important that the classification of the interview be determined before it is conducted as capturing data at a classified level presents its own challenges. Portable information technology equipment and physical notebooks for storing classified data are subject to strict, positive control and carriage of such equipment offshore is becoming increasingly complicated. Entry of classified data will have to be submitted through an appropriate network prior to leaving theatre and the availability of such facilities must be confirmed prior to the LCT leaving New Zealand.

2.15 **Interview Preparation.** The first task is to generate an interview programme. In general, the aim should be to interview all deployed members

of a mission, but this might not always be practical or necessary. Once the LCT identifies all personnel they would like to interview, sending the list to the mission and requesting they build a schedule around a timeframe is a proven method to finalise the interview programme. The LCT will be unaware of any availability issues or constraints around the daily routine of the mission. Experience has shown that an hour is the optimum time that should be planned; forty minutes for the interview with an additional twenty minutes factored in for other questions and any unforeseen delays in the programme.

2.16 The number of interviews conducted in a single day should be set by the LCT and will be largely driven by the time they are scheduled to be in theatre. Carrying out eight interviews during a working day has no real impact on individual mission personnel, but the LCT is vulnerable to repetitive questioning and recording resulting in the process becoming routine rather than unique. As a guide, interviewing a deployment of fifty personnel should normally be scheduled to take place across eight days with a spare day for unplanned disruptions to the programme.

2.17 All interviews should start with an introduction that clearly explains the reason for the interview and the role of the LCT. The introduction should be crafted to cover the following:

- **Opening.** Thank the interviewee for giving their time and don't forget to offer a handshake.
- **Who.** Identify who you and the recorder are, and your roles in the organisation.
- **What.** Provide detail of the direction to conduct the LCT and the objectives you are aiming to achieve.
- **Why.** Explain why captured observations are crucial to the lessons learned process and future operations and capability.
- **How.** Cover the format of the interview, including subject matter, and the expected time it will take.
- **Assure.** Emphasise the anonymity applied to the results of the interview but advise on capturing service numbers for follow-up data if that particular course of action is necessary.

2.18 It is important that delivery of the introduction creates a relaxed atmosphere as this will help stimulate the interest of the interviewee from the outset. Reading an introduction from a script without making any eye contact is impersonal, and portrays a lack of preparedness and confidence in the interviewer.

2.19 The interview should be conducted in a quiet location that is free from distractions; phones unplugged or switched off, computers shut down and if possible, away from frequent foot traffic areas. Setting up the interview room is important. Interviewing across a table could be misconstrued as an interrogation, so casual chairs with no barriers between provides a sense of neutrality.

2.20 **Conducting the Interview.** The interviewer must be confident to expand on a question during the course of an interview in order to draw out information relevant to the collection. The question bank should be used as a prompt by the interviewer given the unpredictability of answers made during the interview; there are occasions when the question bank may be discarded in favour of a particular theme. An expert in a particular field is able to diversify more in one area than another but some mission members (usually lower ranks) will not have the experience to do the same. However, their responses are equally as important as any other personnel and occasionally, an issue is uncovered of which their peers or seniors may not be aware.

2.21 The interviewer is focused on the progress of the interview and is not in a position to make the detailed notes required for future analysis. The LCT should therefore comprise of a minimum of two members, although three is desirable as one can interview, one record and the other enter, the previous interview notes into the collection database.

2.22 **Recording Observations.** The number of observations collected during an LCA is not limited in any way and the LCT will record all responses for analysis. Concealing or discounting observations at the collection stage as irrelevant or mundane tends

Chapter 2

to undermine the lessons process and will weaken the end result. Interviewing 53 personnel during one mission produced nearly 700 observations; another with only 15 personnel deployed still resulted in some 300 observations. This may appear to be a relatively large number but it leads to the identification of themes and issues during the analysis stage when the evidence is clearly backed by the recording of multiple observations that all point to the same issue.

2.23 The person nominated to record responses during the interview will make notes in their own individual style, but it is important to note that the transcription should be as close to the actual words spoken as possible. There may be a key word or phrase used in the response that if not recorded, will impact the credibility and importance of the issue during analysis.

2.24 Handwritten notes are the normal method of capturing observations but the option of using a digital recording device during an interview should not be overlooked. Using voice recordings to recover observations post-interview is more time consuming but there can never be any dispute of points raised. Software tools designed using common desktop applications support the recording of observations and provides easy solutions to sort and share data as required.

Passive Collection

2.25 Passive collection has no specific or researched theme and is entirely reliant on personnel deployed to a mission or activity to input observations through their command chain. This process allows for command to determine what needs to be reported on and what can be addressed internally without the need for external reporting.

2.26 Command are able to capture those internal issues on the lessons database which are resolved or noted for future activities by the unit that conducted the activity.

Post Activity Report

2.27 Post activity reports (PAR) are the key method of reporting activities and observations and is normally submitted through the NZDF lessons database. The operation or exercise order will direct when a joint, single service mission or major exercise is to raise a PAR. The direction should provide detail of specific areas of interest that are to be reported on.

2.28 The number of observations attached to a PAR varies from a wide range to very few or even none, resulting in some reports being of limited value compared to an active collection. However, the process used for an active collection is also used for passive collection, where the contents of the PAR are analysed and an executive summary and key observations report written to reflect the outcomes. This ensures that the process dovetails back into the lessons learned cycle and should result in similar outcomes of an active collection.

After Action Review

2.29 The after action review (AAR) was first devised and used by the United States Army as a discussion focused on learning what happened and why, leading to helping the team and its leaders identify what to change or maintain. It has become an embedded process used globally by project teams, corporate organisations, emergency services and business enterprises, in informal or structured formats, for reflecting on the work of a group and identifying strengths, weaknesses, and areas for improvement. A basic example is a sports coach who discusses tactics with the team at half time and gives direction on any changes necessary to improve performance, or keep doing the same to maintain what they are doing.

2.30 The drive to embed lessons learned is strengthened through teams continuously assessing their performance to identify and learn from successes and failures. The AAR is a simple but extremely effective tool to help achieve this although its use is frequently overlooked in NZDF organisations.

It is often said that without some form of organised review, you keep learning lessons the hard way.

2.31 Most participants in operations and exercises are directed to submit a PAR and associated observations at the end of each rotation in theatre, but there are occasions when an organisation, unit or force element will not have been given the same direction; an AAR is a very effective and important alternative.

2.32 The AAR is a professional discussion by unit or branch member SMEs to identify observations, analyse the results to determine what happened and develop a strategy for improvement where necessary. AARs are part of everyday activities in all walks of life and it is very likely that many NZDF elements conduct an informal AAR on a regular basis, perhaps without realising it. However, without the benefit of a formal process that can be applied to generate a collective report, records of any such reviews are not openly available to inform lessons.

2.33 Evaluation and observations raised during an activity (operations, exercises, training, and so on)

are the building blocks to making a review more of a learning routine. This should be viewed as an occasion where everybody assesses themselves, their unit and their organisation with the aim of determining how their practises can be improved. No matter what the process, formal or informal, large or small numbers of participants, or how long a review may last, the discussion should always revolve around four distinct elements as illustrated below.

The After Action Review Cycle

2.34 The AAR cycle, as displayed in Figure 2-1, has been devised as a series of logical steps to execute the review process. It is deliberately focused on a military approach that can be applied by any NZDF unit or element, revolving around a central goal to rectify weaknesses or maintain strengths.

2.35 Each element of the process is defined as follows:

- **Task.** What were we tasked to do?
- **Reality.** What actually happened?

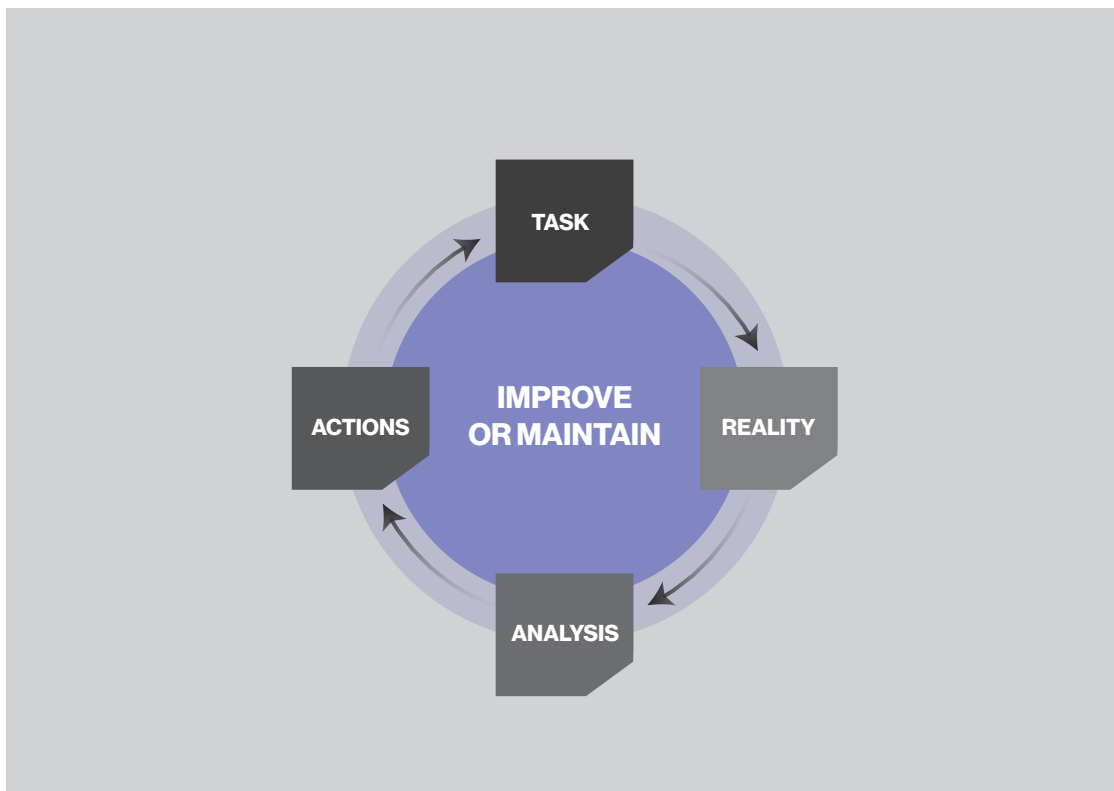


Figure 2-1: The after action review cycle.

Chapter 2

- **Analysis.** What went well; what went not so well?
- **Actions.** What will we do next time?

2.36 **Task.** It is important that those participating in the review agree on the purpose of the mission and the intended tasks they were expected to achieve. Clarity is key as any ambiguity will impact the other elements of the cycle. Consideration should be made of the conditions under which the task was to be performed and what the expected outcome, or level of success, should be.

2.37 **Reality.** Very often it is difficult to establish facts, especially when an event that has taken place was fast paced and individual versions of what happened do not match. Add to this the fact that some individuals will not have complete access to all related plans, and it is easy to see how facts can become distorted.

2.38 **Analysis.** Start with looking at the positives of what took place as this will naturally lead to discussion amongst the group conducting the AAR of what changes might be worthwhile in refining a positive aspect. Identifying the negative characteristics of the event is often complicated by limited or conflicting data, and the natural tendency to not accept responsibility for failure or deficiencies. The analysis must be a totally impartial examination of cause and effect in order to accurately document the underlying reasons for success or failure.

2.39 **Actions.** It is crucial that the organisation or individual responsible for taking action is notified. There is no point in conducting an AAR, identifying areas for improvement and then failing to do anything about it. It is also good practice to identify those areas that went well in order to inform future planners that they should not deviate from a proven method to execute an event.

2.40 The outcome of this process will be a number of observations that must be categorised as either the responsibility of the organisation conducting the AAR or, requiring further analysis and action of an authority or SME outside of that organisation.

Planning

2.41 The key to conducting a successful formal AAR is taking the time to thoroughly prepare for the event. Gathering a group of individuals in a space with no semblance of a plan is a recipe for achieving nothing. Figure 2-2 provides an overview of the steps considered necessary to conduct an AAR.

2.42 **Step 1.** The AAR should take place as soon as possible after the activity while events are fresh in the minds of planners and participants. If there is a long gap between the event and the AAR, there is the danger of personnel who were intrinsically involved perhaps being no longer available that will result in the loss of vital information, and impact the desired outcome.

2.43 **Step 2.** It is important to keep in mind that the AAR is intended to be a learning event rather than a critique. It should never be viewed as an evaluation of personal performance. Scheduling an AAR in a neutral venue would be less intimidating for junior members of the team involved and will serve to energise discussion amongst all.

2.44 **Step 3.** Attendance of suitably experienced individuals who can understand and discuss the finer details of issues raised is an important factor. One of the key actions in conducting an AAR is keeping the review on track and there is considerable benefit by appointing a facilitator. Someone appointed to this role from outside the domain of the organisation holding the AAR, but still having the skills and knowledge of the subject material, can act as a neutral party and help focus the discussion while remaining totally impartial. Debating issues during an AAR detracts from the aim of generating ideas for improvement; a facilitator is in the position of driving the review to avoid such a situation. Accurately recording the outcomes of the AAR is important so consider including one or two personnel as note takers to ensure everything is captured.

2.45 **Step 4.** Compiling the list of what was tasked should be relatively simple as the operation or

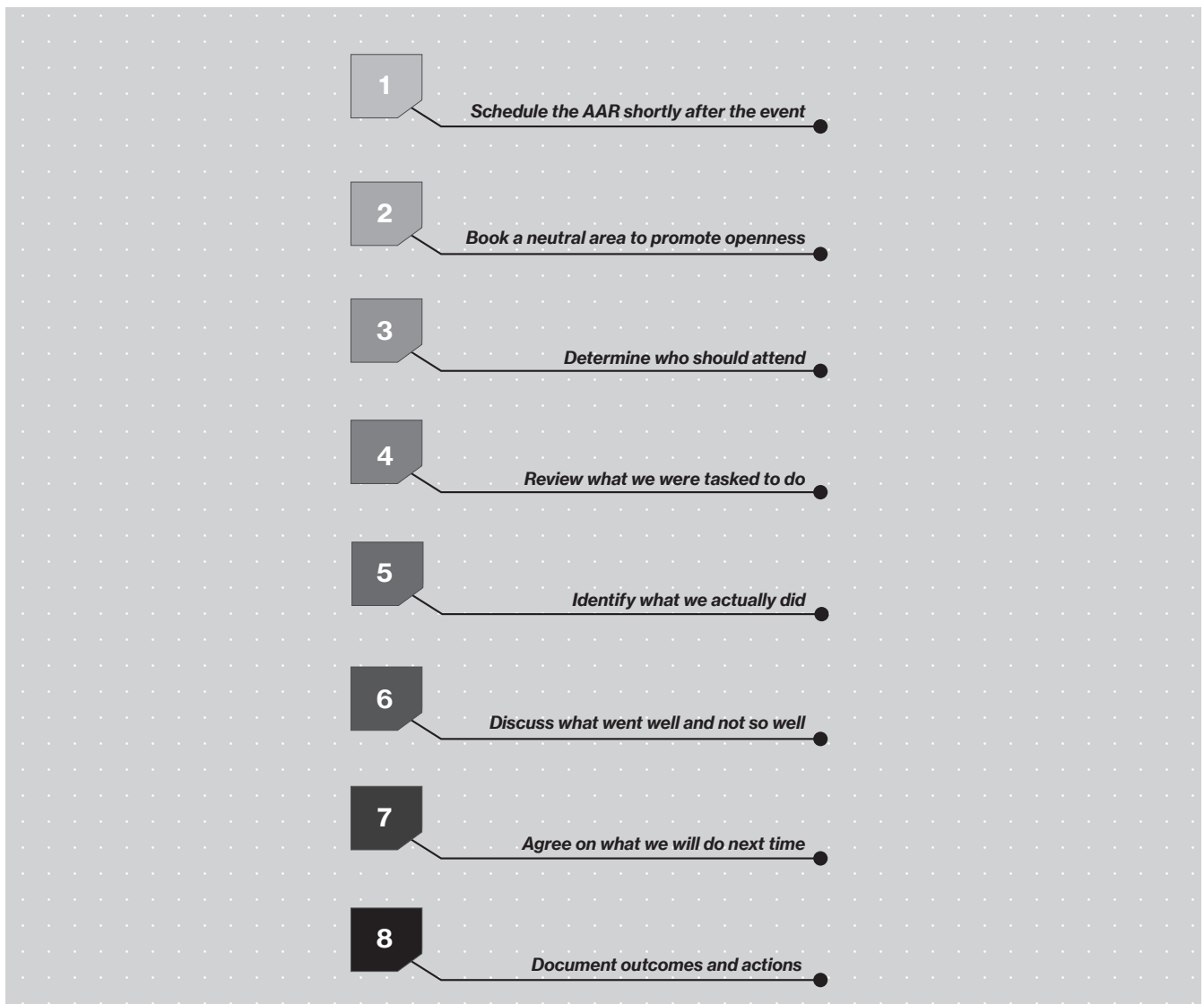


Figure 2-2: The after action review planning steps.

exercise orders and instructions usually define what is expected from a command perspective. However, this is really just a starting point as it is unlikely they will include the detail of implied, specified, and essential tasks drawn up during planning. The command is looking to achieve an outcome; how a branch or unit plans to deliver that outcome is what should be considered for discussion.

2.46 **Step 5.** Self-explanatory, although there is a clear link to the previous step. This element is deliberately separated from the previous one as it requires a different train of thought to analyse the outcomes.

2.47 **Step 6.** This is where participants in the AAR establish the strong and weak areas of performance. It

is the opportunity to be quite open and honest without apportioning blame to an individual. Plenty of time should be allocated for discussion as it is the most involved element of the whole process.

2.48 **Step 7.** Solutions to some of the issues uncovered during the AAR will be quite obvious while others will require more work to implement, possibly involving outside agencies. Past evidence has shown that a majority of issues sit firmly with the trade, branch, or unit conducting the AAR to resolve. It is a case of practising strong in-house management to ensure appropriate action is taken to resolve them.

2.49 **Step 8.** A report should be raised for all formal AAR's reflecting a record of events, outcomes,

Chapter 2

and who is responsible for taking action on an issue. Observations and issues requiring external assistance to resolve should be entered into the lessons database to enable wider distribution for additional comment and analysis.

The Report

2.50 The purpose of the AAR report is to publish the key discussions and issues raised during the review.³ It must be factually correct and written in a consistent style that removes any ambiguity or vagueness. Generally, it would be written as an executive summary narrative of what is considered to be the key issues from a command perspective. Other observations and issues at the operational or tactical level are detailed in an annex, which can be raised for each subject area if necessary (for example, logistics or planning).

2.51 However, this format is not mandatory and can be adapted to suit a specific scenario. Exercise SOUTHERN KATIPO 17 was one of the largest and most complex exercises ever run by the NZDF. It covered the full spectrum of operations in land, sea, and air domains, with 13 countries contributing to the exercise. There was a series of command-level hot wash ups and debriefs, all of which contributed to a report focused on strategic areas of interest (for example, command and control (C2), intelligence, surveillance reconnaissance (ISR), or rules of engagement (ROE)). The subject material at this level of reporting is clearly of command importance therefore it is not appropriate to break down the report into annexes.

Types of After Action Reports

2.52 All AAR's should follow the same general format, which involves the exchange of ideas and observations, but there are two types of AAR: formal and informal.

- **Formal.** There should be a clear expectation that a formal AAR is likely to be resource intensive and will involve much more time to complete. It is important that an individual is nominated as the lead for conducting the AAR so that the required effort can be effectively coordinated. This process may well involve research of written orders, Standard Operating Procedures (SOP), Position Descriptions and doctrine publications, amongst others. Depending on the size and involvement of the event, a formal AAR could take days to complete.
- **Informal.** These are normally conducted as a discussion, white-board session, or as part of a 'hot' wash-up. There will likely be some immediate outcomes but these still need to be recorded and disseminated. An informal AAR may not have the range of expertise present to identify all the issues that need to be addressed. Completion is generally immediately after the event has finished and would run from 15 minutes to two-three hours, depending on the number of personnel present.

³ Whilst the reports can be related to personnel issues, no personal information would be included.



CHAPTER 3:

ANALYSE



CONTENTS

	<i>Page</i>
Introduction	23
Analysis Methodology	23
Deductive Reasoning	23
Inductive Reasoning	24
Analysis of Data	24
Observation Content	25
Processing Observations	25



Introduction

3.01 Analysis is considered a significant phase of the lessons learned process because the remaining phases are built on its outcomes. Analysis is conducted in many aspects of New Zealand Defence Force (NZDF) business, supporting various functions and identifying issues that are not in the normal area of expertise of the analyst; they often require further input from a subject matter authority (SMA) or subject matter expert (SME). The ultimate outcome is to develop one or more remedial actions to fix a problem or to promote a success. Remedial actions must be practical, as a solution that is not sustainable is unlikely to be implemented. The value of analysis is not just to develop findings, but to develop those findings from evidence based observations that will hold up to extensive scrutiny.

Analysis Methodology

3.02 Analysis of collected data is time-consuming and complex. It is the art of reviewing and further

researching the gathered data in order to determine causes, effects, and possible solutions to an issue. Conducting deep analysis of data informs accurate, credible work at the report writing stage, so a thorough review is considered essential. There are two broad methods of reasoning that can guide analysis; deductive and inductive. For each approach, the goal is to determine the root causes of the issues described in the observations.

Deductive Reasoning

3.03 Deductive reasoning or the ‘top-down’ approach begins with a theory based on the content of an observation. From this theory one or more assumptions can be inferred and tested by comparison to similar observations. If the assumptions are supported by the results of the test, it suggests the original theory is correct. In this way, the deductive approach leads from a general theory to confirmation of reasoning. The flow of deductive reasoning is displayed in Figure 3-1.

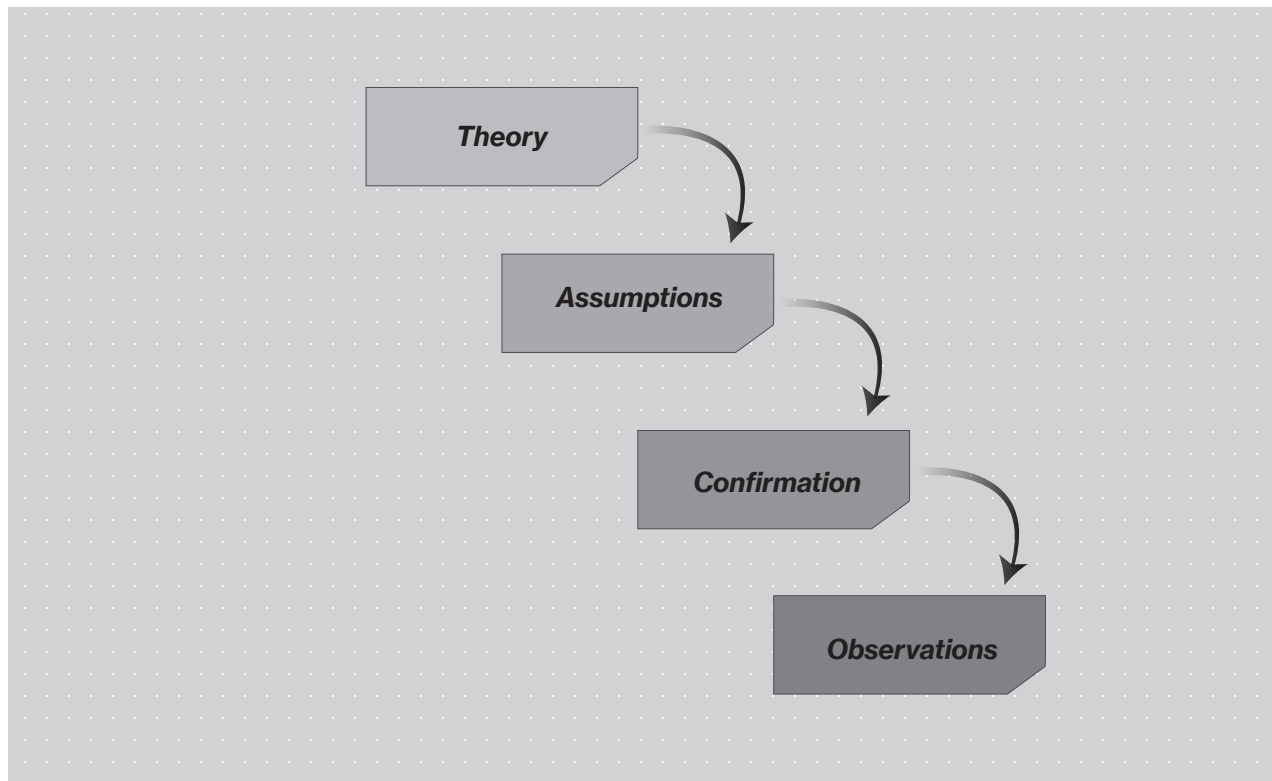


Figure 3-1: Deductive reasoning flow.

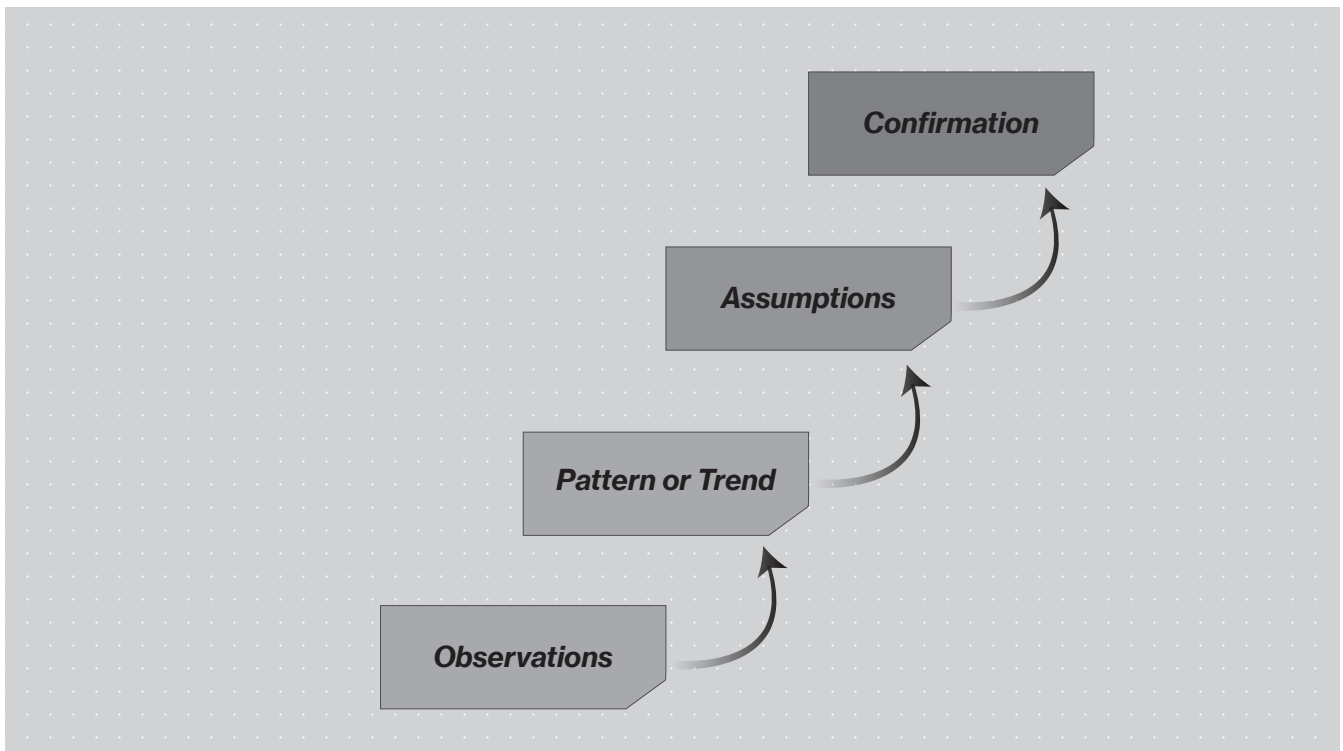


Figure 3-2: Inductive reasoning flow.

Inductive Reasoning

3.04 Inductive reasoning is a ‘bottom-up’ approach where observations are analysed to find patterns or trends. The flow of inductive reasoning is displayed in Figure 3-2. An assumption is formed, which is validated through further consultation with other authorities and SMEs, resulting in confirmation of an issue. Use of inductive reasoning is common in the lessons learned process as it links observations that at first may appear to be unrelated.

Key Terms

Deductive Reasoning

Developing a hypothesis based upon theory and then testing it from an examination of facts.⁴

Inductive Reasoning

Inferring general principles from specific examples.⁵

Analysis of Data

3.05 The aim of successful analysis is identifying patterns or trends by understanding the data available, and being able to accurately summarise what it is signifying. This is the most challenging aspect of the lessons learned process as it is easy to lapse into an evaluation mind-set. It is not enough to just write about collected issues: you need to interpret them and seek verification in order to present them. An analogy of not having enough information is taking your car to a mechanic who gives you a list of faults but not what the impact will be or what needs to be done to fix them; you would expect a fully detailed report. The same theory must be applied to the written report generated as a result of analysis.

3.06 There are a number of factors an analyst will look for among observations to identify the root cause of an issue, and any plausible recommendation to determine remedial action. Involvement of an SME will further help the analyst to draw logical, factual, and workable conclusions from the exploration of data but there are occasions when an observation needs more extensive research and consultation of other reference

⁴ *Oxford Dictionary of Environment and Conservation* (3rd Edition) Oxford University Press, London, United Kingdom.

⁵ *Oxford Dictionary of Environment and Conservation* (3rd Edition) Oxford University Press, London, United Kingdom.

material. This should include, but is not limited to, planning documents and guidelines, command directives, standard operating procedures (SOP), and previous analysis reports.

3.07 Even more important is the need to interact with colleagues and staff who may have first-hand knowledge of an issue; this has the potential to be the richest source of information that often remains untapped. There is likely to be other data stored electronically that the analyst has no knowledge of, or does not have the necessary permissions to directly access it, but can be recovered and shared by another individual. Thoroughly checking the facts behind an issue will usually uncover the supporting or disproving evidence required.

Observation Content

3.08 During analysis, some observations will clearly be identified as a complaint but these are considered irrelevant as they provide no substance to the lessons learned process. Such issues should have been brought to the attention of the mission or exercise command chain for 'in house' resolution at the time they occurred and consequently should not feature in any further reporting or subsequent action.

3.09 Occasionally, the subject matter of some observations could be regarded as sensitive and will need to be handled with care, but it is not up to the analyst to just ignore observations of this nature. Inclusion in any report is likely to restrict the final distribution from the intended audience so best practice is to seek guidance from managers or commanders before publication; it may be necessary to deal with them under separate correspondence.

3.10 It is important to recognise that conclusions are not recommendations and therefore should not be viewed as a statement of how an issue will be resolved. Conclusions are designed to enlighten someone as to what the issues requiring resolution are and may also outline the various pros and cons of a possible solution.

Processing Observations

3.11 The result of a well planned lessons collection activity (LCA) will generally produce a significant number of observations that are subjected to a process of understanding, filtering and compiling. Observations are initially grouped into themes, which assists with the generation of the executive summary and key observations report, the first written product of the lessons learned process.

3.12 There is no quick way of grouping observations other than an analyst reading each entry to determine under which theme it belongs. The number of themes can easily number fifty or more from a large collection; some will have multiple observations, others one or two. However, it should be noted that the number of observations under a theme is not necessarily indicative of the extent of an issue.

3.13 A key feature of the lessons database is the ability to route observations to an individual for comment or action. Using this facility will negate the need for including minor or internal issues in reports and will result in a significant reduction of content to be processed at the 'decide' stage of the lessons learned cycle. It is the role of the analyst to ensure that the exploitation of the lessons database is maximised to avoid lengthy reports and unnecessarily extending the lessons learned cycle time.



CHAPTER 4:

DECIDE



CONTENTS

	<i>Page</i>
Introduction	29
Report Writing	29
Report Content	29
Annex Content	29
Observation Status	30
Continuous Improvement Decision Group	30



Introduction

4.01 The comprehensive review of observations conducted by the analysts will have identified key areas requiring further comment or information to establish verification. Minor issues can easily be dealt with through active use of the lessons database and should not be included in the report.

4.02 Analysis findings can be articulated in many different ways but having spent considerable time and effort acquiring a deep understanding of the issues, the outcomes must be presented in a logical way that makes sense to the reader. A single report is the most appropriate medium for presenting data and is regarded as the foundation of all related future documents.

Report Writing

4.03 The two key questions to consider when writing a report are:

- who is your target audience?
- have you described the key issues that you need to convey to the audience?

4.04 **Target Audience.** Knowing who your audience is fundamental because any report generated must make logical coherent sense to the intended customers and stakeholders. The audience is almost exclusively military and the report must therefore reflect terminology and language that sets it apart from an academic presentation.

4.05 **Key Issues.** A key issue is defined as a high-priority matter that may require some form of command intervention and/or guidance in order to resolve a problem.

Report Content

4.06 The report content is structured with an Executive Summary as the covering document and key observations contained as an annex. The executive

summary reflects a factual narrative of the important key issues, each of which must reflect a clear *so what* that explains why it is an issue and the impact it may have on an activity. This is to ensure that stakeholders, who are unlikely to have time to read the whole report, are able to absorb the important facts of the findings from a strategic/operational perspective. The executive summary is written as a simple flow of untitled paragraphs and should be no more than two pages in length.

4.07 An annex is produced at a tactical level in order to reflect key observations in greater detail should the reader wish to explore a particular issue further. Each issue may include a number of elements for action by separate branches, or more than one subject matter expert (SME), which will be determined during the analysis process.

Annex Content

4.08 Some observations will include a potential recommendation that may lead to resolution of an issue whilst others may merit the inclusion of additional comment as a result of discussions with SME. All observations should be allocated a status to align with the lessons database.

4.09 Recommendations made during a lessons collection activity (LCA) or as part of an observation submitted through the lessons database should be reflected in the report. These should be worded in the past tense, such as *It was recommended that...* as this clearly implies the origin. Use of *It is recommended that...* should be avoided as this does not identify who is making the recommendation; the author of the report or the source of the observation?

4.10 The addition of a comment is not mandatory but should be included where appropriate after further outcomes or actions have been identified, or particularly when an issue can be closed off without having to take it any further through the lessons learned process. Comments add value to the report as they provide the reader with an element of

validation and help to address the *so what* requirement discussed earlier.

Observation Status

4.10 Observations in the current lessons database are identified with a status that reflects the level of progress, which influences the routing and viewing properties. There are seven in total as follows:

- **Not Started.** This is the default status of an observation when initially entered into the lessons database and indicates that it has not been subjected to any action to date.
- **Analysis Phase.** The observation is under investigation by the analyst or has been routed to an appropriate SME for further comment.
- **Action Phase.** A clear course of action has been established and the observation has been forwarded to the authority or individual responsible for ensuring that action is completed.
- **Lesson Identified.** Indicates that whilst there is no further action necessary to change, for example, policy, publications, or standard operating procedures (SOP), the lesson remains visible to all in order to help prevent the same issue from being raised again.
- **Lesson Learned.** This is the pinnacle of the lessons learned process that confirms change has been implemented in either written or physical form.
- **Planning Information Only.** The observation is considered useful for reference in future planning of missions and exercises and is open to viewing by anyone accessing the lessons database.
- **Unit Information Only.** The observation is applicable to the unit that raised it but unlike all other entries in the lessons database, viewing is restricted to that unit only.

Continuous Improvement Decision Group

4.11 Observations that cannot be resolved through active use of the lessons database or through the after action report (AAR) process require further work to ensure they are escalated to other stakeholders. The continuous improvement decision group (CIDG) is where decisions are sought and agreed of what further action is required.

4.12 The CIDG is a group meeting of subject matter experts (SME), with an interest or stake in the outstanding observations, who have individual authority to determine how the issue should be progressed. The CIDG should be arranged, conducted, and moderated by service or unit lessons cells with the aim of recording who is to do what and by when. Most issues are able to be resolved with staff input at this level but there are occasions when it may be necessary to escalate to higher command authorities.

4.13 This process is simple to introduce to single Services and can be implemented with assistance from J8 Branch, Headquarters Joint Forces New Zealand (HQJFNZ) if required.

CHAPTER 5:

IMPLEMENT



CONTENTS

	<i>Page</i>
Introduction	33
Categories of Change	33
Policy	33
Military Doctrine	33
Planning	34
Training	34



Introduction

5.01 Implementation is defined as the process of putting a decision or plan into effect that has been triggered by an observation raised in the lessons database, key observations report, or as a continuous improvement decision group (CIDG) outcome.

5.02 This is the phase of the lessons learned process that is undertaken by the authority charged with taking action and making changes in order to embed lessons learned into an organisation. Service or unit lessons cells should monitor activity with the aim of ensuring progress is being made.

Categories of Change

5.03 Whilst the concept of making changes may be viewed as straightforward, the process can be lengthy and in some cases, difficult to put into place. Implementation of observations can be generally categorised into four areas: policy, military doctrine, planning, and training.

Policy

5.04 The dictionary definition of policy is “a course or principle of action adopted or proposed by an organisation or individual.”⁶

5.05 Policy is applied in the form of a framework to direct New Zealand Defence Force (NZDF) decision making and activities. There are two levels of policy that impact on the NZDF. The first is Government policy; such as a Defence White paper. The second is NZDF policy where the NZDF sets out the rules under which it manages itself.

5.06 **Government Policy.** The New Zealand Government provides direction to the Defence Force by setting out the long-term priorities for Defence.

From time to time the Government also provides supplementary direction to the NZDF, which involves taking a systematic approach to balancing policy, capability and funding, in addition to prioritising international engagement and enhancing the management of its capability.

5.07 These descriptors are strategic in nature and there are countless other policies in place necessary to meet Government intent. Any proposed changes to policy and military capability at the lower level has the potential to impact higher strategic level policy and military capability and it is for this reason that organisational change can take an inordinate amount of time to achieve. However, this process should not be discounted simply because it appears too difficult; if there is a valid reason to challenge and change high-level policy and overall military capability then it should be pursued until such time it is either implemented or rejected.

5.08 **New Zealand Defence Force Policy.** NZDF policy is contained in a range of formal documents ranging from defence force orders (DFO), Chief of Defence Force (CDF) directives, and the newly established defence instructions. These policy documents contain the direction to the NZDF on how it organises and manages itself across all functional areas of the organisation. These policies are amended as frequently as necessary.

Military Doctrine

5.09 Military doctrine is defined as “fundamental principles by which military forces or elements thereof guide their actions in support of national objectives. It is authoritative, but requires judgement in application.”⁷ The primary purpose of military doctrine is to enhance the operational effectiveness of New Zealand’s military forces.

⁶ *Concise Oxford English Dictionary*, August 2011, Oxford University Press, London, United Kingdom.

⁷ New Zealand Supplement to AAP-06 NATO *Glossary of Terms and Definitions*.

5.10 Military doctrine nests below policy in the hierarchy of documents and is itself broken into philosophical, application, and procedural doctrine. The implementation of lessons could require changes to aspects of the NZDF's military doctrine. These changes ensure the lessons that have been identified are implemented in an enduring manner. These changes could be in the form of the following:

- developing or amending our own doctrine
- adapting foreign doctrine that has been approved for use within the NZDF. Adaption of foreign doctrine is achieved through the use of a New Zealand Supplement.

5.11 The approving authority remains the CDF for joint doctrine and the Service Chiefs for their respective environmental doctrine.

Planning

5.12 Planning is the most active area where the need for change is identified and implemented. NZDF doctrine reflects three levels of planning, each of which has different purposes, stakeholders, and processes. The planning levels coincide with the three levels of command and operations: strategic, operational, and tactical. There are two types of operational planning, deliberate, and immediate. Deliberate planning is relatively free of time constraints, whereas immediate planning takes place within a compressed timescale to meet a developing crisis.

5.13 The observations and reports submitted at the end of a mission or rotation should reflect what actually happened rather than what may have been expected in the plan. Therefore, it is important to ensure that proposed changes are brought to the attention of the relevant planning authority so they can be incorporated into future planning.

Training

5.14 Training issues are normally reported at the conclusion of pre-deployment training (PDT) for missions, and as part of exercise reporting. The aim is to determine the effectiveness and efficiency of training, and the relevance in achieving the desired effects or outcomes.

5.15 Refinement of training is important to account for the constantly changing battlespace in terms of technology, political, cultural, and social factors. This applies to both individual and collective training and preparedness for a mission is a pre-cursor to success and delivery of the correct training, which enables the right responses to contingencies that align with directed readiness levels.

CHAPTER 6:

VALIDATE



CONTENTS

	<i>Page</i>
Introduction	37
Reporting Requirements	37



Introduction

6.01 The purpose of validation is to ensure that the remedial action applied in the Implementation stage has actually resolved the original issue. It is the final stage in the lessons learned cycle and is considered to be more evaluation than analysis. The completion of this stage is the moment when an issue can become a lesson learned, unless it was identified for action through the lessons database and was resolved without taking it through the complete lessons learned cycle.

6.02 There is no defined template for validating a lesson as the process will be determined on a case-by-case basis. The change authority implements the change and must then validate that the corrective action is achieving the desired result.

Reporting Requirements

6.03 A report is raised as a follow up to the executive summary and key observations report. This new report will provide progress on completed actions and update the reader on any remaining outstanding actions. The associated entries in the lessons database will have been updated to reflect their current status, which is important for personnel who are using the system for tracking issues through to completion.

6.04 There may be a need to raise more than one report. The two reasons for this are:

- the requirement for subsequent validation after a lesson has been implemented
- multiple measures need to be implemented across a specified timeframe.

6.05 A greater emphasis is being placed on resolving issues using the lessons database and the need to create sequel reports must be carefully considered. Key information can be delivered during pre-deployment training (PDT) and if mission members log into the lessons database as they are

encouraged to, they will be able to review the progress of everything reported from the previous mission rotations.

6.06 It is recognised that not all New Zealand Defence Force (NZDF) personnel have regular access to the defence information exchange system (DIXS) network, and the small number of classified terminals in camps and bases makes access in that space difficult. Many personnel have no requirement to view classified data and by default do not have the permissions to activate an account.

Key Term

Validation

The assessment of an action, decision, plan or transaction to establish that it is (1) correct, (2) complete, (3) being implemented (and/or recorded) as intended, and (4) delivering the intended outcome.⁸

⁸ *Business Directory* (Internet).

GLOSSARY

Terms and Definitions

The references quoted in brackets in this glossary are source documents. The source documents are listed below.

- ADDP – 7.0 *Doctrine and Training* (1st Edition), January 2006, Australian Defence Headquarters, Canberra, Australia.
- Canadian Forces Joint Publication A2 – *Lessons Learned*, April 2015, Ottawa, Canada.
- *The Leader's Guide to After Action Reviews*, 2010, US Combined Arms Centre (Training).
- *NATO Lessons Learned Handbook* (3rd Edition), February 2017, Joint Analysis and Lessons Learned Centre, Lisbon, Portugal.
- *Concise Oxford English Dictionary*, August 2011, Oxford University Press, London, United Kingdom.
- *Oxford Dictionary of Environment and Conservation* (3rd Edition), 2017, Oxford University Press, London, United Kingdom.

Active Collection (CFJP A2 – Lessons Learned)

Data collection that is related to an analysis objective and involves direct interaction with the activity being analysed.

After Action Review (The Leader's Guide to After Action Reviews, US Combined Arms Centre (Training))

A structured review or debrief process for analysing what happened, why it happened, and how it could be done better by the participants and those responsible for the project or event.

Continuous Improvement (Adapted from ADDP – 7.0)

A planned ongoing process that allows an organisation to systematically review and improve the quality of its products, services and associated processes.

Deductive Reasoning (Oxford Dictionary of Environment and Conservation (3rd Edition))

Developing a hypothesis based upon theory and then testing it from an examination of facts.

Evaluation (ADDP – 7.0)

Evaluation is a systematic, objective assessment of the appropriateness, effectiveness or efficiency of an initiative, policy, project, service, function or operation.

Inductive Reasoning (Oxford Dictionary of Environment and Conservation (3rd Edition))

Inferring general principles from specific examples.

Lesson (Concise Oxford Dictionary)

Something that a person or organisation learns or should learn.

Lesson Identified (AAP – 06)

A mature observation with a determined root cause of the observed issue and a recommend remedial action and action body, which has been developed and proposed to the appropriate authority.

Lessons Learned (AAP – 06)

An improved capability or increased performance confirmed by validation when necessary resulting from the implementation of one or more remedial actions for a lesson identified.

Military Capability (NZ Supp to AAP – 06)

Military capability is the ability to achieve a desired operational objective in a selected environment, and to sustain that level of effort for a designated period. It is the combined effect that systems of inputs have in helping to achieve a particular operational consequence.

Glossary

Passive Collection (CFJP A2 – Lessons Learned)

Data collection that is related to an analysis objective and does not involve interaction with the activity being analysed.

Subject Matter Expert (Concise Oxford Dictionary)

Someone who is regarded as an appropriately skilled specialist on a particular topic or technique.

Training (ADDP – 7.0)

A planned process to inculcate and modify attitude, knowledge or skill behaviour through a learning experience to achieve effective performance in an activity or range of activities.

Validation (Concise Oxford Dictionary)

The assessment of an action, decision, plan or transaction to establish that it is (1) correct, (2) complete, (3) being implemented (and/or recorded) as intended, and (4) delivering the intended outcome.

Acronyms and Abbreviations

AAR	After Action Review
C2	Command and Control
CDF	Chief of Defence Force
CIDG	Continuous Improvement Decision Group
DFO	Defence Force Order
DIXS	Defence Information Exchange System
DMAIC	Define, Measure, Analyse, Improve, Control
DTA	Defence Technology Agency
HADR	Humanitarian Aid and Disaster Relief
HQJFNZ	Headquarters Joint Forces New Zealand
ISR	Intelligence Surveillance and Reporting
LCA	Lessons Collection Activity
LCT	Lessons Collection Team
NGO	Non-Government Organisation
NZDF	New Zealand Defence Force
OGA	Other Government Agencies
PAR	Post Activity Report
PDT	Pre-Deployment Training
PRICIE	Personnel, Research and Development, Infrastructure, Concepts and Doctrine, Information Technology, Equipment and Logistics
RFL	Required Fitness Level
ROE	Rules of Engagement
SAL	Systems Approach to Learning
SITREP	Situation Report
SMA	Subject Matter Authority
SME	Subject Matter Expert
SOP	Standard Operating Procedure
VCDF	Vice Chief of Defence Force

INDEX

AAR, 19, 20, 21, 22, 23, 30, 38, See after action review

after action review. See AAR

analysis process, 29

CIDG, 30, 32, 38

classified data, 17, 35

classified terminals, 35

closed-ended question, 17

collection activities, 13

collection database, 16, 18

collection process, 15

collective training, 13, 33

continuous improvement decision group. See CIDG

course of action, 18, 30

critical information, 15

deductive, 25

deductive reasoning, 25

deep analysis, 25

Defence Excellence, 9

defence force orders, 32, See DFO

defence information exchange system (. See DIXS

defence instructions, 32

Defence Strategic Policy Statement of 2018, 9

Defence White Paper, 9

Deliberate planning, 33

development support, 13

DFO, 32, 38

directives, 26, 32

DIXS, 35, 38

doctrine, 1, 2, 13, 23, 32, 33

evaluation, 11, 16, 21, 26, 35

Exercise Southern Katipo 17, 22

future capability, 12

Government intent, 32

HADR, 9, 38

humanitarian aid and disaster relief. See HADR

immediate planning, 33

inductive, 25

Inductive Reasoning, 7, 25, 26, 36

Information management, 13

intelligence, surveillance reconnaissance. See ISR

interview principles, 16

ISR, 22, 38

key issues, 22, 29

key observations report, 19, 27, 32, 35

LCA, 15, 16, 18, 27, 29, 38

LCT, 15, 16, 17, 18, 38

leading questions, 17

lessons collection activity, 15, 27, 29

lessons collection team. See LCT

lessons cycle, 9, 10

lessons database, 10, 15, 19, 22, 27, 29, 30, 32, 35

lessons learned cycle, 19, 27, 35

lessons learned database, 15

lessons learned process, 3, 10, 11, 12, 13, 18, 25, 26, 27, 29, 30, 32

military efficiency, 9

modernisation, 13

NZDF policy, 32

operational activities, 13

operational capability, 11

operational objective, 12, 13, 37

operational perspective, 29

operational planning, 33

organisational effectiveness, 9

passive collection, 15, 19

PDT, 35, 38

pre-deployment training. See PDT

questionnaire, 17

ROE, 22, 38

rules of engagement. See ROE

SAL, 12, 38

sharing lessons, 13, 15

SMA, 11, 25, 38

SME, 11, 15, 21, 25, 26, 29, 30, 38

social factors, 33

SOP, 23, 26, 30, 38

South West Pacific, 9

strategic level policy, 32

subject matter authority. See SMA

subject matter expert. See SME

survey response, 17

systems approach to learning. See SAL

themes, 15, 17, 18, 27

trend analysis, 10

validation, 10, 30, 35, 36