





Action research is ...

[blank pages are to allow double-sided printing]

(See http://www.aral.com.au/wshops/wsar.html for details of an action research workshop)

Action research is ...

This is a brief account of the attitudes and processes that make action research particularly relevant for an uncertain and turbulent future

Bob Dick

An Interchange resource document

Copyright C Bob Dick, 2018. You may copy this freely if you do not include it in material sold at a profit and you show this notice

Interchange ABN 14 141 571 466

37 Burbong Street Chapel Hill QLD 4069 Australia

+61 7 3378 5365 http://www.aral.com.au/

ISBN 978-1-875260-20-1

Contents

Action research is attitudes, processes and actions	1
Attitudes influence how we respond to what happens	2
Preparing for the unexpected in an increasingly uncertain world	3
Planning is for the planning, more than for the plan	4
Developing the attitudes to engage with the unpredictable	5
The virtues of trial and error to deal flexibly with the unexpected	6
Spirals of action and reflection allow great versatility	7
Spirals of action and reflection allow flexible, mindful action	8
Dissent and disagreement can enable a deeper understanding	9
Achieving team outcomes through productivity and collaboration	10
Small group action research — with the researcher as facilitator	11
Working with enthusiasts to achieve better outcomes	12
When relationships are good everything else becomes easier	13
Project and process for the future of leadership	14
Project and process for a small action research group	15
Other stakeholders are to be considered	16
Large group action research in communities and organisations	17
V is for volatility — the shape of the future?	18
The drivers of turbulence now influence almost all of us	19
In summary: the future relevance of action research	20

Action research is attitudes, processes and actions

Action research is ...

a particular mindset	characterised by these attitudes:
	 curiosity and open-mindedness — a willingness to experience the situation as it is, and respond to it
	 collaboration and equality — engaging all participants deeply and giving them an equal voice
	 action-orientation — a wish to improve the situation
and	
a family of processes	to turn the mindset into practical action, including processes for:
	 combining action and reflection, to learn from experience through iterative trial and error
	 engaging the participants to build a shared sense of community, expectations and purpose
	 collaborative and action-oriented planning, decision making and implementation
that suit times	that are increasingly:
	 turbulent and fast-paced, and therefore
	 hard to predict.

We explore these issues in a little more depth, beginning with attitudes ...

Attitudes influence how we respond to what happens

Attitudes influence how we engage with the world and with other people



Consider the fascinating PhD studies that Jenny Rudolph carried out. She had access to a high-technology operating theatre simulation. On an operating table a high-tech mannequin displayed many of the critical signs of an actual patient. Anaesthesiologists were confronted by a simulated problem, and could gradually access relevant cues.

Jenny expected that some anaesthesiologists would quickly reach a diagnosis and fixate on it. She predicted that they would then be unable to adjust their diagnosis as contrary evidence became available. She anticipated that other anaesthesiologists would postpone a diagnosis while they collected more information. They would do better, she assumed.

Her expectations were met ... to an extent. Those who postponed diagnosis made better use of the cues than those who fixated on their early diagnosis. In both instances, though, real patients would have died.

Some anaesthesiologists used a third strategy. They did reach a diagnosis quickly. However, they **didn't** fixate on it. They remained open to other possibilities. They willingly made use of new evidence to change their diagnosis.

Most of them would have saved their patients.

What made the difference?

They were **action**-oriented. And they sought out **disconfirming** evidence.

They were more prepared to deal with the unexpected and unpredictable.

Preparing for the unexpected in an increasingly uncertain world

When you don't know what will happen next, what can you do?



"Does the flap of a butterfly's wings in Brazil set off a tornado in Texas?"

That was the title of a conference paper given by Edward Lorenz in 1972. His question was prompted by work he did earlier on weather forecasting.

Lorenz was a mathematician and meteorologist. He simulated weather systems on his computer. In his simulations, he sometimes found that *trivial* variations in the values of some inputs changed the outcomes *substantially*.



Obviously, it isn't that a butterfly can deliberately influence the weather. It's that complex systems like weather are inherently unpredictable. Small initial differences can sometimes lead to enormous eventual changes.

Army generals have had views about this, too. To paraphrase the Prussian general Helmuth von Moltke: *"No plan survives the first contact with reality"*.



Or consider Dwight Eisenhower, a US general. He was reportedly fond of saying that *"Planning is everything. The plan is nothing."*

That is, you can't necessarily expect plans to work.

Then, why plan?

- to reflect on the situation and consider some possibilities, and
- to activate the right neurons.

The planning is for the planning, more than for the plan.

Planning is for the planning more than for the plan

You (and I) can plan in ways that prepare us for the unexpected

There is a set of questions I can ask myself when I'm planning some action. They are based on Argyris and Schön's "theory of action", which has the form: situation actions (assumptions)

In situation S, if you intend outcomes O, do A, given assumptions $a_1 \dots a_n$

Considering these questions offer me several advantages, two in particular:

- They help me to think in a way that makes the translation between theory and practice — in both directions — easier. The theory is actionable.
- They sensitise me to likely features of the forthcoming situation. Knowing my expectations, I can then pay attention to anything that doesn't match them.

Here are the questions I can ask myself. The "a" questions below identify my expectations about situation, outcomes, and actions. The "b" questions elicit my *assumptions* about those three elements. This is planning for the planning —

1a What do I think are the most important features of the **situation**?

1b **Why** do I think those are the most important features?

- 2a If I'm correct about the situation, what **outcomes** do I think are desirable?
 - 2b Why do I think those outcomes are desirable in that situation?
- **3a** If I'm correct about the situation and the desirable outcomes, what **actions** do I think will give me those outcomes in that situation?
 - **3b Why** do I think those actions will give me those outcomes in that situation?

This prepares me with the right attitudes for unpredictable situations

Developing the attitudes to engage with the unpredictable

Planning sets the scene. The next step is to be curious and open-minded



Watch a young child in a new setting. Notice how engaged it is, filled with curiosity and wonder. For the child, so much of experience is new — deserving of wonder.

Now, watch most adults. What is different?

Much of the time, many adults have abandoned the wonder and curiosity. The **curiosity** has been replaced by **habit**. Adults respond to most situations as if they are routine and expected — as if they have happened before.

But we can instead use the theory-of-action questions to prepare us to know what to expect. We can then more readily notice the unexpected. We can more easily pay attention to the situation as if it were new.

And in a sense, **it is new**. Every situation is. I assume that is what Heraclitus meant when he said that we can't step in the same stream twice. Water has flowed. It is now a different stream.

The six questions prepare us to notice any aspects of the situation that are unexpected.

I've noticed that the unexpected evokes in me a twinge of surprise. If I am attentive and aware I can notice that twinge. I can attend to it, and amplify it. I can become **curious**, like a child, about what is new in the situation.

I am then ready to respond with full engagement, appropriately and flexibly.

As it happens, we are already practised in responding flexibly ...

The virtues of trial and error to deal flexibly with the unexpected

Sometimes habit has advantages. And sometimes trial and error is better

Imagine that a situation has occurred that is routine and **expected**.

It is a situation you know well. You've often encountered it. From past experience you know what to do. You respond from habit. You deal with it easily.

You may not even pay attention to what you're doing. That's an advantage of habit. It takes little or no conscious attention.

Lots of situations are like that. You may barely notice them. Recognition, conscious or not, is followed quickly and easily by routine action and then success.

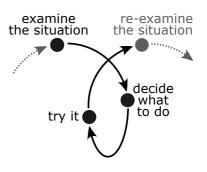
Now consider a situation that you **don't expect**. You're not sure what is happening. You can't initially know what to do.

Then, how do you proceed?

Sometimes you respond with curiosity rather than anxiety. If so, my guess is that you then examine the situation. You try to make sense of it.

When you think you have some understanding, you anticipate what might work. You try it out, paying attention to outcomes.

If your action doesn't work, or works only partially, you learn from the results. You adjust your intentions. You try again. As your understanding grows, so does your success.



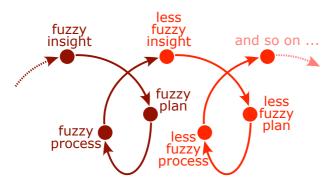
It requires more energy and attention than habit does. In new situations, though, it is worth the effort. It leads to understanding ... which leads eventually to success.

The spiral of action and reflection allows flexible trial and error

Spirals of action and reflection allow great versatility

The action-reflection spiral is simple and common ... and versatile

Note how versatile the action-reflection spiral can be ...



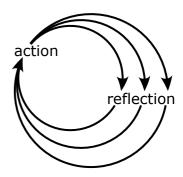
It can deal with high uncertainty by reducing the uncertainty gradually. Each action, carefully observed, reveals more of the situation.

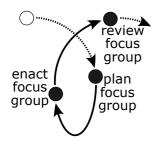
Each time you act your insight deepens. Your greater insight then allows better actions, deepening insight further.

Spirals can be nested within spirals. You can use them at any scale.

You can plan a brief action occupying seconds or less. You can try it out, observe what happens, and seconds later can try something different.

You can plan a program of action taking weeks, or years, or decades. And again, observation deepens insight, which improves action.





Action research can be used as a meta-methodology — an umbrella process within which other processes can be embedded. For any cycle within the overall spiral process you can substitute a more elaborate process from elsewhere. For example a diagnostic process like a focus group can be planned, enacted and reviewed as one turn of a spiral.

And in addition there are varieties of action research spirals

Spirals of action and reflection allow flexible, mindful individual action

There have been many examples of the action-reflection spiral



Kurt Lewin is regarded by many as the originator of action research, or at least as the person who coined its name.

He described action research as "a circle of planning, action and factfinding about the result of the action".

David Kolb described a very similar cycle as the process through which we learn from our experience.

His cycle consists of active experimentation, concrete experience, reflective observation and abstract conceptualisation.





W. Edwards Deming used processes of quality management to bring collaborative continuous improvement into workplaces.

He developed a cycle for continuous improvement having four components. They can be described plan, trial, study, and act.

Each of them applied the spiral process to a different purpose: ■ exploration, ■ learning, and ■ improvement.

You will have noticed, though, that their different forms of the spiral are actually quite similar. In each case there is an alternation between action and reflection. The reflection reviews the action, drawing learning and understanding from it. It also plans a tentative next action.

The action-reflection cycle allows you to achieve all three purposes. You can explore the situation, learn from it, and improve it. Accompanied by an appropriate mindset, the cycle assists you to develop and enhance your practice.

That can be easy and satisfying if you're the only person affected.

What if there are other people in addition to yourself?

Dissent and disagreement can enable a deeper understanding

It begins with us. As we treat others, so are they more likely to respond

Consider the following three styles of interaction, or of process. They can be applied to one-on-one communication, and to decision-making processes generally:

"Win/lose": (or adversarial). One person wins; the others lose.

What happens?: *People do whatever it takes to win*. They exchange selective information to support their own case.

Many people are comfortable with this style of relating. However, outcomes may be disappointing except for one person, and sometimes eventually for all.

Easy "win/win": (or **consensual**). People identify shared goals.

What happens?: *People seek out areas of agreement, and build on them*. This may work well if there are genuine shared goals and no "burning issues". Useful dissent may be suppressed to preserve relationships and agreement.

Tough "win/win": (or **dialectic**). Crafting agreement from disagreement.

What happens?: Information is pooled. Disagreements are explored collaboratively. Dissent can lead to deeper understanding and is welcomed:

- honest information is directly communicated
- different views, opinions and information are encouraged
- all strive to understand each others' views, with genuine *curiosity*
- disagreement is treated as a sign that more information may be needed.

Dialectic processes can form the basis of small group activities





Achieving team outcomes through productivity and collaboration

As **we** model good behaviour we encourage the best in others

within the tribe, a strong commitment to their own wellbeing and survival	and as a tribe, collective wellbeing and survival through cooperation.
to their own wendering and barvivar	und survival anough cooperation.

Most of us are raised in ways that further amplify these two orientations:

From our earliest years we are praised	
for excelling, perhaps for winning.	

From our earliest years we are praised when we are considerate of others.

Both orientations, individual and social, have unconstructive forms:

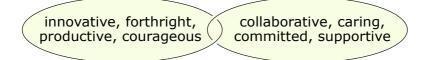
We place our own welfare above that	We conform to social conventions
of other people in our team or group.	whether or not they are helpful.

and both have constructive forms:

We devote effort to performing well and improving performance.

We contribute keenly to cooperative efforts that benefit everyone.

It is possible to combine the constructive forms of the individual and the social:



Such processes are most effective for planning, problem solving and decision making. As facilitators and researchers we can exhibit them in our own actions. When we do so, we find it easier for our processes to elicit them from others.

Thus prepared, we are able to use action research within small groups

Small group action research — with the researcher as facilitator

How to help others to acquire the mindset and the processes

Action research can be scaled up to work with small groups. It will be most effective, however, when the group members adopt the appropriate mindsets and processes.

Most people are capable of filling different roles at different times. They behave differently in different situations. They interact differently with different people. It's as if they had different identities for responding to different situations.

As researchers we can create situations that will elicit appropriate identities.

In addition, most groups are able to negotiate how they will work together. Most group members will then try to honour the agreements they have reached.

As researchers we can guide group members through activities to negotiate how we will work together.

These five **preliminary activities** set the scene for effective small group action research:

- Where possible, work with enthusiastic volunteers people who are committed to improving the situation.
- Build relationships and community, so that group members enjoy working with each other, and look after each other. Include yourself as part of the community.
- Agree on a shared purpose that benefits all group members and (if at all possible) all other stakeholders.
- Identify any other **stakeholders**; agree on what you will do to involve them, and to what extent.
- Negotiate which **processes** you will use, and agree on how you will use them.

For more detail, beginning with recruitment, read on ...

Working with enthusiasts to achieve better outcomes

How to recruit a suitable action research group

In my experience, an effective action research team is **a small** group of

■ sufficiently **diverse** and ■ **enthusiastic** volunteers, some or all of whom are

• **direct** stakeholders —

small	The closely-related action learning literature recommends groups of five to eight or ten. I've found that groups of three or four offer important advantages. Meetings are more easily arranged. Attendance is better. The group is more easily self-facilitated. It can co-opt others temporarily for their skills or experience.
diverse	Groups that are diverse in qualifications, background and work roles have access to wider experience and understanding. In addition, they can further enhance their diversity through temporary co-optation of others.
	Diversity is most effective when relationships are close and trusting.
enthusiastic	Enthusiastic volunteers are more likely to succeed even with a plan that is not the best. They will persist, with trial and error, until it does work. A team of unwilling conscripts may fail to implement a plan even if it is technically the best possible.
	Adequate support from the organisation also helps.
direct	Direct stakeholders are those who are most directly affected by the team outcomes. Having direct stakeholders on the team allows better access to relevant information. And direct stakeholders are more likely to be keen to achieve good outcomes.
	It can also be useful to include someone influential, so that necessary resources (including time) are more easily accessed.

This approach may be used with a temporary project team, or with an intact work team working directly on its own performance.

With the right team recruited, the next step is to build good relationships

When relationships are good everything else becomes easier

A team with warm and trusting relationships can perform better

A close and trusting relationship is one where, to some extent, people experience each other's pleasure or pain. They are then motivated to look after each other, and to work well together.

Such relationships can develop over time when people work together on a joint task that they find worthwhile. But this can be slow. To speed up the process there are activities to help people experience each other as real and complex — as more than just their superficial work roles.

For groups of three or four, the most effective activity I know is *Turning points*, which Tim Dalmau and I developed. In it, people exchange information about a number of important events and people in their life. There is a description in the action learning document at http://www.aral.com.au/resources/ALfLDaCC.pdf (case sensitive: use caps and lower case as shown).

Some task-minded groups may object to the Turning points activity. They may claim that is too "touchy-feely". Here's an alternative. Not quite as effective, it is likely to be acceptable as more obviously relevant to the team task:

The group interviews each of its members, in turn. The group members ask for information about some skill the person has. They ask for a skill that is relevant to their task, and that the other team members don't yet know about.

They ask the member to tell the story of how they used that skill effectively in responding to a relevant and difficult challenge. They listen intently, with curiosity, to the story. In particular, they seek to understand what it is, *about the member telling the story*, that allowed them to respond effectively to the challenge.

This continues until each of the team members has been interviewed.

Now that the team is established it is ready for the task and the process ...

Project and process for the future of leadership

The virtues of achieving high performance and high responsiveness

This page is a brief but important detour. It foreshadows later material on the requirements of a less predictable world. In particular, you are invited to think about the style and nature of leadership required to deal with a more turbulent and uncertain future. You are asked to consider what action research might contribute to this.

The issue is already familiar to those of us who facilitate groups. We are often working with people who understand the task or project better than we do. Our contribution is an understanding of process.



We guide them through a **process**. Our contribution allows **them** to achieve better **project** outcomes.

Yet increasingly I find that the better I understand the project, the more effectively I facilitate. And the better they understand the process, the better they achieve good project outcomes. More often now, I adopt the aim of helping them to take responsibility for both project and process at the same time, collaboratively, as soon as they are able.

This, I think, is what the likely future requires — people working collaboratively as equals, managing both their tasks and their processes, skilled at both. And this, I think, is increasingly one of the benefits of using action research and action learning.

Now let's resume our consideration of the beginnings of small groups ...

Project and process for a small action research group

Orienting a group to high performance and high responsiveness

In this document I describe a particular approach to action research. The aim is for an action research group to become as self-sufficient as possible within a few meetings. The group members are helped to pay attention to both the project (or task) and the process they use to address it.

Here is the intention ... As they work on the task, they do so not from habit. They remain sensitive, moment by moment, to what is actually happening. They have agreed on the outcomes they wish to achieve. They also remain flexible about those outcomes and the way of achieving them.

Here is how they might do so ...

•	Define the project in outcome terms by answering the question "How will we know that we have successfully implemented the project?"
	Regularly revisit their defined outcomes in the light of experience.
•	Develop 2 (or at most 3) process guidelines for the group. An activity for doing so is described in the action learning document at http://www.aral.com.au/resources/ALfLDaCC.pdf (case sensitive)
•	At the end of each meeting, use the guidelines to review how well they managed the process, individually and collectively.
•	When they are observing a guideline consistently, they replace it with another guideline about some aspect of process that they now wish to pay attention to and improve.
	•

At each meeting, one of them (in rotation) takes primary responsibility for guiding the process while still providing input to project work. The others take primary responsibility for the project, while continuing to attend to the process they are using. Whenever they meet their process guidelines remain visible at all times.

There are probably other stakeholders in the project. What about them?

Other stakeholders are to be considered

Setting up an action research group is easy. Involving others is less so.

Broadly speaking, a stakeholder is someone likely to be affected by, or able to affect, the carrying out of some task or project.

For most projects, stakeholders are likely to be an extremely varied group. It is unlikely that a single approach will meet the needs and wishes of all. When involving other stakeholders, within necessary constraints a desirable goal is

- the provision of maximum access
- by diverse face-to-face groups of stakeholders
- to real decision-making power
- using non-adversarial processes.

There are still choices to be made about how to involve them. One major option is to involve *all* willing stakeholders. An alternative is to engage only with a smaller number selected or elected to represent the stakeholders.

Whichever is chosen, other choices then follow:

- direct consultation with representatives, or with all stakeholders, seeking their reaction to the current intentions of the researcher or some subgroup of participants
- full involvement of representatives or all stakeholders in some or all aspects of goal-setting, data collection and interpretation, planning and implementation
- giving representatives or direct stakeholders responsibility for some or all aspects of goal-setting, data collection and interpretation, planning and implementation

You will notice that each of these implies other choices about the *extent* of the involvement in those options.

If involvement is with representatives, there is then the issue of maintaining adequate communication between the representatives and those they represent. Though important, it is very often done poorly or even overlooked completely.

Some of these choices are well suited to communities and organisations

Large group action research in communities and organisations

Helping others to acquire the mindset and the processes

Here is a design that has been used in both organisational and community settings.

The three main phases are: **A** setting up a small representative working party to guide the process; **B** involving the whole community or organisation in deciding overall goals; and **C** setting up project working parties of direct stakeholders for different aspects of the chosen goals. In more detail ...

- **A** The researcher or consultant and a small internal working party plan the overall intervention process.
- **B** At a whole-system event, goals are agreed, and local projects to achieve the goals are identified. Visioning or open space might be used for this event.
- **C** Small working parties of direct stakeholders volunteer to develop and implement each of the projects. Each is a small action research team as described earlier.



The whole-system event legitimises the projects. The use of direct stakeholders in multiple small working parties increases the likelihood of success. By spreading involvement it also maintains momentum.

Members of the small working parties learn valuable skills in leadership, decision making, and similar. To achieve this, the working parties are set up to manage their own process and task within negotiated boundaries.

The initial working party can continue to assist the researcher to collect and collate the understanding that the project working parties develop through their work.

For the organisation or community, the outcomes include project completion, wholesystem improvement, and local understanding. The researcher builds skills and also develops relevant theory on change. This is done by interpreting the local understanding against other relevant literatures and other similar studies.

Such interventions help to prepare for a less predictable future

V is for volatility — the shape of the future?

"VUCA" is for volatility, uncertainty, complexity, and ambiguity.

Volatile situations are fast-changing. Events happen in rapid succession, often suddenly. The speed and extent of technological change increases volatility. Computing power and artificial intelligence are drivers. There are few reasons to expect the pace of technological change to slow down.

Uncertain situations lack predictability. They are hard to anticipate and therefore to plan for or avoid. They may happen often. Being unexpected they can take people by surprise. The more complex the situation, the more likely it is also to be uncertain.

Complex situations are characterised by multiple forces acting and interacting. When almost everything affects almost everything else, causes and effects cannot be untangled. Increasing globalisation drives this complexity. It then amplifies the volatility, uncertainty and ambiguity.



Ambiguous situations are hard to understand clearly. They are experienced as if through a fog or haze. It is easy to mistake what is happening. The situation can be categorised wrongly, leading to an unhelpful response. As complexity increases, so does ambiguity.

"Planning is everything. The plan is nothing" — That's the quote from Dwight Eisenhower again. Eisenhower was a US General during the second world war (and later a US President). We think of the defence forces as very top-down, command and control. And on the parade ground, they may well be.

Not on the battlefield, however. The defence forces have realised for some centuries that there the situation is unpredictable. It was in the defence forces that the term VUCA was coined. Each of the competing forces tries to respond more quickly than their opponents. Unpredictability soon results. VUCA happens.

More recently, business has adopted VUCA concepts ... for good reason ...

Organisations and communities now face strong drivers of turbulence

Two trends, in particular, contribute greatly to the growing pace of change, and the volatility, uncertainty, complexity and ambiguity:

• Globalisation The larger a system, and the more its parts are interconnected, the faster and less predictably the changes in the system become.

In many respects the world has become a global village, as Marshall McLuhan said. Local developments can influence what happens on the far side of the globe. Initially local events (like the 2008 global financial crisis) can spread quickly to most of the rest of the interconnected world.

 Technology Enormous investment is taking place in information technology, computers, and artificial intelligence. Each of these has already profoundly affected organisations and communities. Each has the potential for greater effects still to come.

An obvious example is the increasing power and speed and the reduced size of digital technology. In the last half century the processing power of computers has increased **enormously**.

In addition, these two drivers interact to amplify each other's effects. Globalisation speeds up the spread of technological breakthroughs. Technology allows global communication and travel to become vastly easier, supporting more globalisation.

Beyond globalisation, technology, and their interaction, a large number of other trends have been reported. Some of the important ones include urbanisation (the flight to the cities), demographics (the ageing population), population growth, potential resource shortages, and so on.

There are no guarantees that a particular existing trend will continue. When multiple trends are aligned, however, a reversal is much less likely.

If these increase further, action research becomes more relevant

In summary ... the future relevance of action research

A turbulent future requires participative, flexible, responsive reactions

In this document I've made claims that I believe are well supported by evidence and experience. I can summarise the claims under the three categories of the future, the action research mindset, and the action-reflection spiral:

- Future The world is changing. There are reasons to believe that those changes will result in more volatility, uncertainty, complexity and ambiguity. In such a world, established reactions based on habit will increasingly fail. To succeed, reactions will have to be responsive to the reality of situations. The reality includes multiple stakeholders.
- Mindset At its best, action research is characterised by a mindset that is sensitive to what is actual. With immediacy and curiosity we can try to engage with the world as it is, rather than automatically or habitually.

In similar vein we can bring immediacy and curiosity to our interactions with people. With empathy we can engage them as valued equals. Thus we can increase the opportunities for productive cooperation.

Spiral The action-reflection spiral offers a way of translating the mindset into action. Its flexibility allows informed trial and error. Each turn of the spiral deepens our understanding and enables more effective action.

We can identify and involve all stakeholders. Thus we can expand the scope and scale of our actions. We can respond to participants with the same sense of immediacy and curiosity, and with empathy. Through united effort we can increase the ambition of our actions.

Part of my reason for preparing this ebook was as a "taster" for some of the concepts I plan to include in my forthcoming **two-day public workshop on action research**. It will be held in Brisbane on 30-31 August 2018.

For more details see...... http://www.aral.com.au/wshops/wsar.html



Like action learning, action research can be a project-based method in which a facilitator helps a small project team to acquire relevant leadership and collaboration skills. The team does so by working on real and important issues in real time.

It can also be used for individual performance improvement. It can be scaled up for use in organisations and communities.

Bob Dick is an experienced consultant. For 45 years he has been assisting individuals, organisations and communities (and himself) to improve functioning and satisfaction.



For this work he uses many models, concepts and processes, usually accompanied by action research and action learning.

This document is built around three key concepts.

The first consists of the attitudes that support effective action research. They include mindful attention to the present reality. There is a strong commitment to involving others and giving them equal voice.

The second consists of processes that can convert the attitudes into successful action. In particular, at the heart of action research processes is a spiral alternating between action and critical reflection.

The third concept is that the expected future is turbulent and hard to predict. The action research spiral encourages informed trial and error, a data-driven and value- driven way of responding to uncertainty.

A web version exists at http://www.aral.com.au/resources/actionresearchis.pdf