

Improving Learning Power

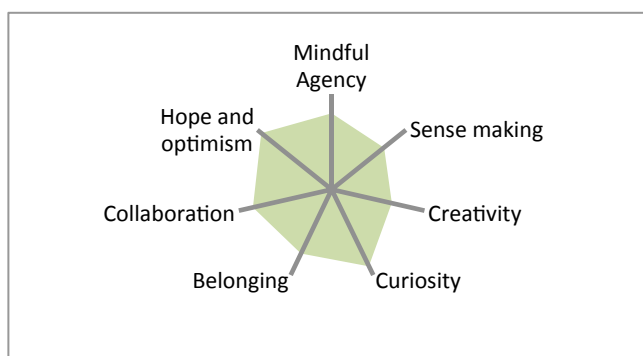
with the Crick Learning for Resilient Agency (CLARA) Self Assessment Instrument

Learning Power Research Foundations

In 2002 a team of researchers identified the seven dimensions of 'learning power' which enable people to learn. The dimensions were not skills or competencies but holistic qualities or dispositions, all involving 'thinking, feeling and doing'. The research team created and validated a survey tool that measured Learning Power (the Effective Lifelong Learning Inventory or ELLI) giving people feedback on their strengths and weaknesses as learners. Over the next decade, with skilled facilitation, this feedback was used by teachers, coaches and leaders around the world as a starting point for learning conversations and strategies for developing learning power, individually and collectively. This research into Learning Power at the Graduate School of Education at the University of Bristol is the foundation on which the CLARA Self Assessment Instrument is built.

Resilient Agency

In 2014, the Learning Emergence research team set about re-analysing the data sets which had been collected over 15 years, to test the model and explore particular hypotheses about learning power which had emerged from research and development over that time. In this analysis, Resilience, which enables people to respond positively to challenge, risk and uncertainty, was identified as a more complex process that can't be sufficiently measured by a single scale. Resilience requires learners to be self-aware and to take responsibility for their learning journey over time. This includes identifying and owning their purpose and finding ways of going about achieving it, particularly in the face of challenge and complexity and risk. This combination of awareness, ownership and responsibility is what we mean by Agency and the significant need for *Resilient* Agency at every stage of a learning journey – from purpose to performance - called for the development of a new, scientifically rigorous instrument known as the *Learning for Resilient Agency* Self-Assessment.



Structural equation modeling produced a more robust set of measures, with fewer survey questions. It enabled the Learning Emergence research team to explore the internal structure of learning power, looking more carefully at the relationships between the different dimensions and between the constructs making up each of them. A new dimension, Mindful Agency, is found to be a key element of learning power which predicts creativity, sense-making, curiosity and hope. Learning Relationships has, in fact, two distinct aspects: collaboration and belonging. An eighth measure, Open Readiness, reflects an emotional state towards learning, whose optimum varies



according to context and lies somewhere between the two extremes of 'Rigid Persistence' on the one hand and 'Dependent Fragility' on the other. Both extremes may be appropriate in some contexts (for example undergoing an operation on the one hand or pioneering in challenging circumstances on the other), however it is more productive, in learning, to maintain a healthy tension between fragility and persistence and remain open and ready to respond to challenge and change.

The centrality of these concepts together with the name of our lead researcher, Ruth Crick, informed the choice of name: the Crick Learning Assessment for Resilient Agency, or CLARA. The purpose of CLARA is to provide individuals, groups and systems with a robust and accurate self-report of their levels of Learning Power, combined with deeper insight into the power of learning to sustain human agency in the face of the 21st Century conditions of ambiguity, uncertainty and doubt.

CLARA is a practical online learning analytic designed to stimulate improvement in learning and performance through rapid feedback of data to individuals, teams and organizations. It is also subject to the rigorous quality of social science research in terms of reliability, validity, trustworthiness and authenticity.

CLARA measures the ways in which individuals regulate the flow of energy and information over time in order to achieve a particular purpose – their learning power. This is a necessary but not sufficient part of a learning journey which moves from purpose to performance over time, fuelled by learning power and the process of structuring and re-structuring knowledge. CLARA enables individuals and teams to reflect 'backwards' towards identity and purpose and to navigate 'forwards' to the achievement of purpose through knowledge structuring and problem solving. All stations of the learning journey are important in learning design and in becoming a resilient learner.

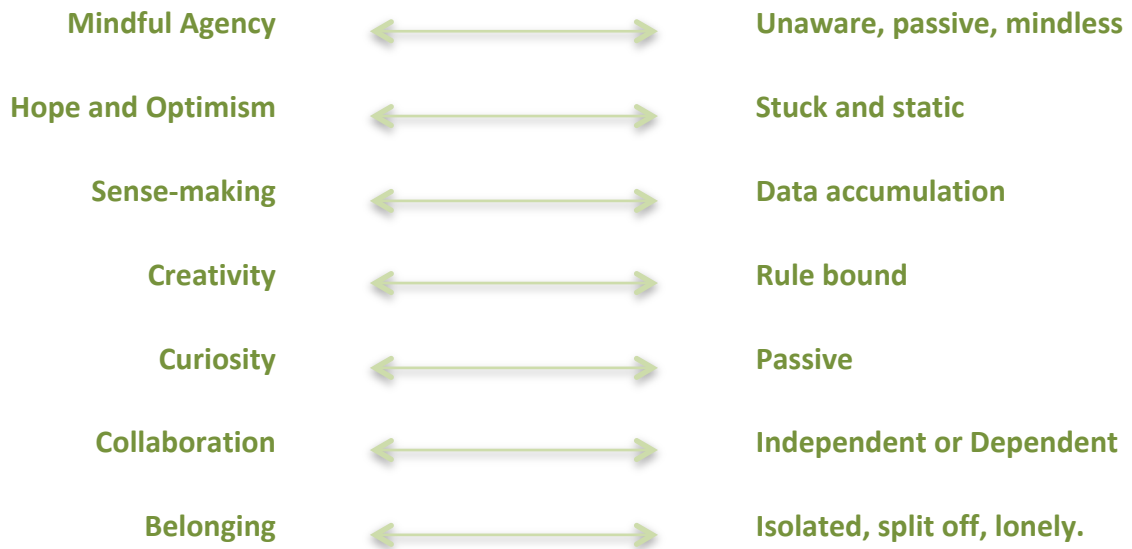


Learning journeys are 'fractal': they follow recognisable patterns at all levels in organisations : i.e. among students and employees, among teachers and managers and among leaders and policy makers. They provide feedback and feed-forward loops for all processes in both individual and organizational development and performance. Becoming better at making sense of and responding to the rapid flow of data and energy, which we all encounter all the time, is important for leadership and innovation.

The CLARA dimensions are personal qualities that can be developed and which reflect how people view themselves. We see them as constructs that have an emergent pole (usually positive) and a contrast pole (often negative for learning). The eighth dimension is an emotional orientation towards new learning opportunities that reflects the degree of trust and readiness a person experiences in a particular context – a necessary pre-requisite for developing resilience in a learning journey from purpose to performance.

CLARA Dimensions

CLARA learning power dimensions

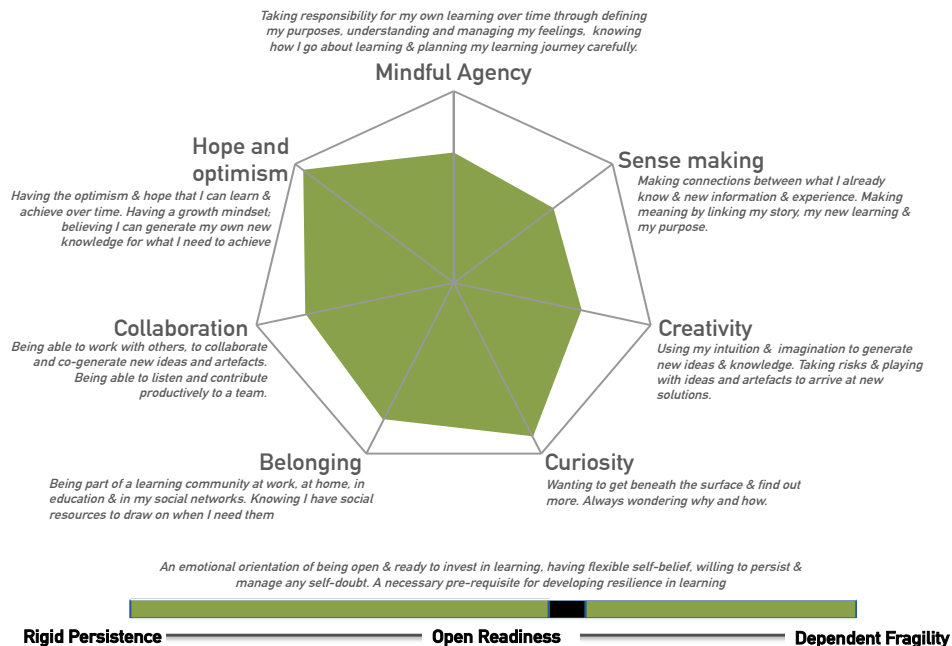


CLARA Orientation to Learning Dimension



Feedback for individuals is in the form of a spider diagram, with an additional slider for the Orientation to Learning dimension.

CLARA Feedback



Key Reference: Deakin Crick R. et al (2015) Developing resilient agency in learning: the internal structure of learning power. *British Journal of Educational Studies*

The Purpose of CLARA

CLARA's purpose is to provide rapid feedback to individuals and teams about their learning capabilities so that they can make better decisions about how to interpret information and move forwards. Well-deployed, it is about emancipation and empowerment, enhancing agency through effective learning, for individuals, organisations, communities.

CLARA is:

1. a well-researched set of ideas about how people learn most effectively
2. a self-assessment instrument to aid self-analysis, diagnosis and strategy
3. a framework for scaffolding open-ended enquiry
4. a tool to empower people to bring about change, individually and together

1 How we learn

CLARA is a well-researched set of ideas about how people can develop resilience and take responsibility for their own learning and change over time. These ideas are:

- holistic and relational, about integrating and connecting (not just splitting things up for the sake of analysis)
 - they are about us as 'whole people' – thinking, feeling, doing (not just about cognition or behaviour or skills)
 - they balance attention to both the 'person' as the learner and the 'knowledge' that is being constructed. We need to see each of these as inseparably linked
 - the dimensions of learning power are inter-connected aspects of a complex and dynamic process – so you can use the ones that are your strengths, to help strengthen the others
 - they are relational – about my relationship with myself, with other people and with the world around me
- dynamic and developmental: seeing learners as 'on a learning journey' that moves between purpose and performance, not defining or 'fixing' them for the sake of analysis or assessment
- drawn from research that consulted widely, amongst learners and practitioners as well as experts and research literature
- always being tested and developed empirically through ongoing research.

2 The self-assessment instrument

CLARA is a self-assessment instrument to aid self-diagnosis and strategy. As a self-assessment tool, it:

- is a 'self-report' inventory. It reorganises what we say about ourselves into a spider diagram (profile) of Seven Dimensions and Orientation to Learning 'slider'.
- is contextual: its outcomes will be affected by a learner's perception of herself at a point of time, in relation to a particular context

- can be repeated to reflect and report on change in self-perception and/or the learning context
- can help to structure and guide problem based learning
- should be capable of adaptation to any age group or culture, subject to re-validation
- creates numerical raw 'scores' invisible to the individual learner but stored in a database that makes the anonymous, aggregated data available for interrogation and analysis.
- can contribute usefully to institutional self-evaluation
- available for translation into Arabic, Italian, Malay, Mandarin and Spanish

3 A framework for scaffolding open-ended enquiry

CLARA provides a language and an infrastructure for supporting problem based learning and open-ended enquiry. By connecting up with the stages of an enquiry process, whether that is a Plan-Do-Study-Act cycle, an Authentic Enquiry or any systematic investigation, the learning dispositions measured by CLARA together provide a way of supporting the processes of:

- Identifying a purpose
- Analysing the problem space
- Selecting processes for identifying and capturing knowledge
- Mapping and structuring knowledge
- Evaluating performance

4. An empowerment tool

CLARA is a tool to empower people to bring about change, individually and together. As such, it:

- has been found to play a significant part in helping people and organisations to:
 - engage in reflection and become more self-aware
 - communicate meaningfully about their learning
 - develop confidence and self-reliance, becoming less dependent on teachers/others
 - decide on change strategies
 - recognise, monitor and report on change
 - manage transitions, such as between key stages, schools, school and university, work and formal learning and from one culture to another
 - mentor students and support their personal development towards employment
 - move towards a learner-centred, non-didactic teaching style
 - respond to productively to data for decision making

The Research Phase

CLARA's three year research programme will focus on its:

- replicability in different contexts
- role as a core process in learning journeys
- role in dispositional analytics
- role in system-wide change through stakeholder-driven networked improvement communities
- potential for agent-based modelling and its contribution to big data analytics
- contribution to learning infrastructures.

How can I work with CLARA in my organisation?

CLARA is available for research and development as part of a stakeholder driven improvement project, aligned with our wider research programme. An improvement project sets out to ask ‘How do we know how well we are doing?’ The following design principles are drawn from the Carnegie Foundation’s approach to networked improvement communities¹:

1. **Make the work problem-specific and user-centered.**

Quality improvement starts with a single question: “What specifically is the problem we are trying to solve?” It enlivens a co-development orientation, engaging key participants as problem definers and problem solvers from the earliest phases of development through large-scale implementation.

2. **Focus on variation in performance.**

A networked improvement community aims to advance efficacy reliably at scale. Identifying and addressing the sources of variability in outcomes is essential. Rather than documenting simply “what works,” as in estimating an on-average effect, aim to learn “what works, for whom, and under what set of conditions.” Develop the know-how to make innovations succeed for different students across varied educational contexts.

3. **See the system that produces the current outcomes.**

It is hard to improve a system if you do not fully understand how it currently operates to produce its results. Seek to understand better how local conditions shape work processes and resulting outcomes. Use this analysis to explicate a working theory of improvement that can be tested against evidence and further developed from what is learned as you go.

4. **We cannot improve at scale what we cannot measure.**

Measure outcomes, key drivers, and change ideas so you can continuously test the working theory and learn whether specific changes actually represent an improvement. Constantly ask: “Are the intended changes actually occurring? Do they link to changes in related drivers and to desired system outcomes?” Anticipate and measure for unintended consequences too.

5. **Use disciplined inquiry to drive improvement.**

Common inquiry protocols and evidentiary standards guide the diverse efforts of NICs. Engage in systematic tests of change to learn fast, fail fast, and improve fast. Remember that failure is not a problem; not learning from failure is. Accumulate the practical knowledge that grows out of failure, and build on it systematically over time.

6. **Accelerate learning through networked communities.**

NICs aim to break down silos of practice and research. **They enliven a belief that** we can accomplish more together than even the best of us can accomplish alone. A shared working theory, common measures, and communication mechanisms anchor collective problem solving. Organize as a NIC to innovate, test, and spread effective practices sooner and faster.

¹ Extract from Bryk, Gomez, Grunow, and LeMahieu (2015) *Learning to Improve: How our Nation’s Schools Get Better at Getting Better*. Harvard Educational Press

What does a 'CLARA Project' entail?

There are several components to a CLARA Improvement Project. Some are essential, like the initial 'Project Leaders' Workshop' which ensures that you have at least two members of staff to design, lead and evaluate your project and 'champion' the ideas for you. The most important pre-condition is commitment by institutional leaders to the CLARA values, to being enquiry-led, and to resourcing of people's time to 'do it properly'.

The workshop equips your CLARA Project Leads to brief and train other staff, arrange for learners and leaders to access the CLARA survey, explain the Eight Dimensions to them and support them in understanding and responding to their CLARA profiles. They will also know how to scrutinise and analyse the learning power characteristics of selected groups. All the staff involved can then use CLARA as both a diagnostic and developmental tool, working with individuals and groups on strategies to build learning power in the dimensions they identify as most needed. It will also allow for the design of 'prototype interventions' devised, led and evaluated by your own leaders.

The Learning Emergence Research network has partnered with eXplorance Blue a world class survey provider in an online platform called 'SOLA' (Surveys for Open Learning Analytics), which operates on a non-profit basis. This is the hosting platform for CLARA. The SOLA Team at Learning Emergence can advise you about core and additional options, their costs and how the platform can be configured to suit your project design. They can also connect you with research institutions and researchers who can support you as critical friends and contribute to analysis, evaluation and knowledge sharing.



For further information, see www.learningemergence.net
Or contact enquiries@learningemergence.com