



Getting Heads Together

*Transformational Model for School
Leadership Development*

A report for the ERASMUS+ Getting Heads Together
Project (Output O1-A3)

Co-funded by the
Erasmus+ Programme
of the European Union

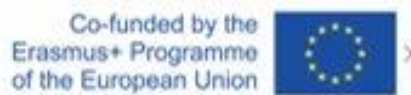


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Reference as

Getting Heads Together (2022). Transformational Model for School Leadership Development. Available at <http://www.gettingheadstogether.eu>



The report was made possible through the ERASMUS+ programme of the European Union.

Transformational Model for School Leadership Development

For Output: O1-A3 Develop and review different models (taking into account social, political, economic and cultural differences)

Introduction

This document outlines our approach to the development of school leaders that will inform the approach taken within the Getting Heads Together ERASMUS project.

Output O1-A1 demonstrated that school leaders across the EU face complex issues/wicked problems on a daily basis. Furthermore, these complex issues/wicked problems take up a lot of school leaders time and are important for how they work within their school. In this output we will recognise

- 1) These complex issues/wicked problems are hard for school leaders to understand and respond to.
- 2) That school leaders need a specific approach to their development to help them understand and respond to complex issues and wicked problems.

Key Concepts

What is school leadership?

Leadership is the process of influencing teams, individuals and organisations (Northouse, 2016; Yukl 2002). The large number of important responsibilities which school leaders have within their roles present an important opportunity to influence the organisation and the individuals within it (Connolly, James and Fertig, 2017) and that “When those carrying a delegated responsibility act in relation to that responsibility, they influence and are therefore leading.” (p.504).

These responsibilities can include:

- Establishing a positive school culture;
- Organising and teaching the curriculum;
- Supporting professional learning and development;
- Managing student behaviour and the relationships within the wider community; and
- Organising an efficient and effective organisation.

How leaders lead these responsibilities is important as they can have a large effect on student outcomes (Day, Gu and Sammons 2016) and how staff experience and develop in their workplace (Robinson and Timperley, 2007; Skaavlik and Skaavlik, 2011).

However, a headteachers’ responsibilities can be complex for two reasons:

1: Schools are complex organisations.

Schools are complex organisations. They have many features which include:

Feature of Complex Adaptive System
Self-Organisation. Each part of a system will organise according to the demands of the environment.
Small actions can lead to big consequences. Equally, large-scale change might have no significant impact on the organisation.
Can be unpredictable; outcomes within a system can emerge from the actions taken. New variables can emerge, which can make it difficult to predict what might happen.
Nested Systems. All systems are embedded within another system.
Interdependence. No part of the system can be isolated because all parts of the system are linked
Systems and environments co-evolve. Systems adapt to the needs of the environment, and the changes in the environment can stimulate changes within the system.
The system has a history, and this history cannot be forgotten. This history of a system will influence how the system evolves next.

Table 1: Features of Complex Adaptive System. Compiled Using Descriptors from Holland (1992: 2006) Dooley (1997) and Palmberg (2009)

2: Many of the responsibilities that school leaders have are complex.

School leaders have many complex responsibilities, Rittel and Webber (1973) define complex responsibilities as 'wicked problems'.

Wicked problems have 8 important features:

1. Wicked problems can take different forms and can be described in different ways according to the perspective or position of the individual involved.
2. It is not easy to determine when, and if, they are solved.
3. It is not possible for the solutions to be considered right or wrong/correct or incorrect.
4. There is no way to test whether a solution to a wicked problem will work.
5. They cannot be studied through trial and error.
6. There are infinite solutions or approaches to a wicked problem.
7. All wicked problems are essentially unique.
8. Wicked problems can always be described as the symptom of other problems.

Wicked problems require a large amount of a leader's time (Leithwood, Begley and Cousins, 1994; Anderson, 2017). Our own survey of school leaders showed that:

- More school leaders reported that complex issues/wicked problems took up more time (48.9 vs 31.8%) compared to less complex/tame tasks. This is despite tame problems being considered more common (46.9%) than wicked problems (22.3%)

- Wicked problems can occur across the range of responsibilities that school leaders can face - from supporting school culture and behaviour management, to working with others, handling complaints and financial management.

To summarise so far: Leadership is defined as the process of influence, and an important way that school leaders can influence their school is how they act on their responsibilities. However, in acting on their responsibilities, headteachers face many complex ('wicked') problems.

Why do we need adult development-informed school leadership development?

In the previous section, we said that school leaders have to respond to very challenging/wicked, problems within a complex environment and that leaders need to act on these responsibilities.

Complex environments and complex/wicked problems force adults to think about the problem. Holt and Cornelissen (2014) describe this psychological process as **sense-making**: "*the process through which people work to understand issues or events that are novel, ambiguous, confusing, or in some other way, violate expectations (P.1)*". The sense-making process is important because sense-making is what allows leaders to act (Weick, Sutcliffe and Obstfeld, 2005) and is therefore an important process for school leaders, who are forced to work with complex/wicked problems on a daily basis.

The psychological construct that is responsible for the process of **sense-making** is the **Ego**. Loevinger (1976, Hy and Loevinger 1998) theory of Adult Ego Development (AED) suggested that the Ego could be within one of eight stages at a given point in an individual's life. Each stage describes fundamentally different ways of sense-making: the degree of complexity people can engage with, through to how they work with people. Therefore, each stage of AED describes how sense-making can be substantively different. A summary of these stages can be found in Appendix 1.

Emerging research suggests that school leaders' sense-making stage can affect how they understand and act in complex issues/wicked problems. Research from Gilbride, James and Carr (2021), Gilbride, James and Carr (Forthcoming) demonstrated two key ideas:

1. That the process of sense-making, undertaken by the stage of AED, can shape how a leader interacts with the problem. The research looked at headteachers in the three most common stages of adult development - Self Aware (Stage 1), Conscientious (Stage 2) and Individualist (Stage 3). A summary is presented in Table 2:

	Understanding Complexity.	Understanding and Interacting with Incidents that are Wicked Problems.	Role of Others.	Perception of Others.

Self-Aware (Stage 1)	<p>Immediate situation. Imposing simplicity.</p> <p>Causal linearity. Following hierarchy.</p> <p>Looked to apply the rules of any policy.</p>	<p>Collect hard evidence on the situation.</p> <p>Conduct a private sense-making process.</p> <p>Quick, timely response to an action plan.</p>	<p>Provide Information.</p>	<p>Action-orientated.</p>
Conscientious (Stage 2)	<p>Patterning. Wide and then focuses in.</p> <p>Imposing predictability. Limited role of policy.</p>	<p>In addition to hard evidence, they seek out reasons why from others.</p> <p>Private 'Diagnosis' – establish a logical rationale by themselves</p> <p>Planning – Strategy & Interaction Support for identified victim</p>	<p>Would use a trusted set of advisors. Validation for their privately developed sense of the problem.</p>	<p>Would list of a set of qualities: “They are a great listener”; “They are empathetic”.</p>
Individualist (Stage 3)	<p>Seek understanding beyond the incident. Emergence. Mutuality.</p> <p>Appreciate system as interconnected. Unpredictability. Policy – guidance.</p>	<p>Looking for the inside track: Less tangible insights, body language, subtle changes in language .</p> <p>Comfortable for their understanding of the situation to gradually emerge as new information came to light.</p> <p>Co-construction. Build understanding with others. Support – beyond immediate situation + developmental.</p>	<p>Beyond hierarchy – HT/Ps would seek advice beyond their senior teams. Understanding of events with others, together ('co-construction'). Communication - working with those around them. Development.</p>	<p>Deeper insights into situations: “Magical”; “They just get it”.</p> <p>Can resonate deeply with those around them: “They make me feel heard.”</p>

Table 3 Summary of Results Found in Self Aware, Conscientious and Individualist headteachers (Gilbride, James and Carr 2021)

2. That the most advanced stage of AED typically found in adult populations, the Individualist stage, was associated with several practices that are an advantage in complex issues/wicked **problems**:

- a. The understood more of the features of complex problems and felt comfortable with complexity. This includes recognising the ambiguity within these incidents, the likelihood of emergence, the role history plays in the problem and the likely continuation of the problem beyond the original timescale.
- b. They tried to understand the problem from new perspectives to emerge, sought different range of opinions and analysis, took time to reflect, and sought out connections beyond the problem. They tried to develop staff through the incident and to help them grow.
- c. Worked with others in a mutually collaborative way: they would try to work with others to 'co-construct' i.e. build their understanding of the problem with other people and across the different levels of the organisation.

These practices have been identified to be advantageous to leaders in several ways:

- The overall success of the organisation (Rooke and Tolbert, 1998; 2005).
- Team formation (Bushe and Gibbs, 1990; Fisher and Tolbert, 1991; Bartone et al., 2007; Harris and Kuhnert, 2008)
- Relationship management: (Harris and Kuhnert, 2008; Strang and Kuhnert, 2009; Heaney, 2020)

The Relevance of Linking Sense-Making to AED for School Leadership Development.

Linking these approaches to work with sense-making, and sense-making being linked with stage of AED, has important implications for how we support the learning of school leaders:

1. It would appear that developing school leaders' sense-making could support school leaders in responding to their complex responsibilities. Later stages are associated with approaches that support school leaders with wicked problems and organisational complexity.
2. As sense-making is conducted by the Ego, developing sense-making capacity will involve development of an individual's stage of AED.
3. Development into the later stages will require an intentional, deliberate programme of study designed specifically around this goal. However, we need to consider the following points:
 - a. Later stages are rare within the population. Several studies recognise that only 6-15% adults inhabit the later Individualist stages (Lanning et al., 2018; Cook-Grueter, 2004). This would suggest that individuals typically struggle to develop into the practices associated with late stages on their own and without substantive support, and that traditional professional development programmes might not be enough on their own to promote this development (Day et al., 2014; Kjellström, Stålné and Törnblom, 2020).
 - b. Several development programmes which focused on AED development have shown that movement into later stages can become progressively harder for adults to achieve, especially into the Individualist stage. (King et al, 2000; Manners, Durkin and Neesdale, 2004; Vincent, Ward and Denson, 2013).

Therefore, in supporting school leaders with the problems they face, we need an alternative developmental approach that **adds value** to traditional approaches and facilitates individuals to work with practices associated with later stages of AED sense-making. The purpose of this programme is what we now turn our attention toward.

Section 2: Principles in Researching The Transformational Model for School Leadership Development

In developing this model, we have been driven by the following principles:

1. **That training in the development of sense-making requires a specific programme of development.** Traditional approaches to professional learning are not, on their own, sufficient to develop an individual's sense-making capabilities. Whilst several studies have demonstrated that development within and across AED stages is possible (Newman, Tellegen and Bouchard, 1998; Manners, Durkin and Nesdale, 2004; Vincent, Ward and Denson, 2013), development into the later stages is still rare (Lanning et al, 2018). As such, any attempt to promote progression into the later stages of AED requires a different, new approach to development.
2. **The need to incorporate research from outside the discipline of Adult Development.** During our review of the literature, we uncovered that there were general principles for developing sense-making, and that these general principles are supported by empirical research and learning theory. However, they were rarely attached to a specific approach or method, and often neglected other factors known to influence learning. Some examples are as follows:

	Benefit to sense-making development	Problem	Routes of Inquiry Identified
Exposing individuals to alternative ways of how people make sense of different situations/circumstances.	Exposes individuals to concepts of multiplicity, ambiguity which can facilitate individuals to later stages of AED.	The literature did not specify details on how to introduce different perspectives, how such a session could work etc.	Dialogic Inquiry, and Reflective Practice which could be used to support the design of sense-making structures for group work and reflection that facilitate development.
The role of knowledge	In teaching and learning across different disciplines, the role of knowledge is recognised as important in informing individuals capacity to engage	The role of knowledge has not received so much attention, despite its increased prominence in teacher and school	Cognitive Psychology: Considering what powerful knowledge can, in of itself, support individuals to conceptualise the

	in higher-order thinking.	leader development literature.	world in different ways.
How to motivate people into experiences:	Unique experiences and direct behaviour of individuals provided moments of reflection and growth	It was not clear how to best to simulate such experiences into a learning opportunity, and what other factors can impact on an individual's volition to engage ins these behaviour	Behavioural psychology; Psychology of Motivation.

Section 3: Outcomes and Learning Processes Involved of The Transformational Model for School Leadership Development

What Outcomes Should We Expect From Those Who Participate?

Development, according to Kegan and Lahey (2009) can take two forms

- Vertical development - an increased sense-awareness of their own sense-making capacity as it currently stands . This could also include a critical reflection of its relative strengths and weaknesses in how they operate within their environment.
- Horizontal Development - a quantitative shift in their stage of AED.

Both are important forms of development. Stage development is a complex and challenging outcome for any development programme and is dependent on a broader support structure around the individual. Therefore, growing as an individual to become fully aware of an individuals' stage of development and maximising awareness within their stage can be a strong outcome for individual development.

What Should the Programme Include?

There are two key messages we should consider in achieving vertical and horizontal development.

1: How individuals engage in sense-making should be at the core of the programme..

By directly exploring with leaders how they engage with making sense of complexity and wicked problems within their work, practising and considering alternative ways of conceptualising and working through problems could facilitate deeper growth in their sense-making capacity within and beyond their current stage of AED.

2: Developing sense-making also requires us to consider factors which indirectly affect how we engage, develop and practice sense-making. For example, the role of knowledge. Knowledge can influence how we think through problems and provide approaches for understanding different problems. Another example is looking at behaviour: a programme to be one that is promoting individual changes and growth should generate the desire and capacity for growth and new behaviours in a new direction (Bandura, 1977; Cunningham *et al.*, 2019) and promote individuals to behave/interact with the environment in a fundamentally different way.

Therefore, the programme needs to facilitate developments in sense-making by:

- Providing direct opportunities for trainees to practice and engage in sense-making. We will need to create experiences that are purposefully designed to challenge their sense-making and expose them to;
 - alternative perspectives;
 - group/collaborative sense-making;
 - the complexity inherent within problems.
- Facilitating changes in **knowledge** - this includes
 - Formal, declarative knowledge; understanding of theories and concepts that are relevant to how schools operate
 - Procedural knowledge; gain knowledge on how to engage in ways which help broaden out the experience and opportunities for the leader to understand and act in a situation.
 - and self-regulatory knowledge: Knowledge of how they manage themselves within situations and potential alternatives..
- Facilitating changes in **behaviour within their work environment** - behaviour, and the outcome of changes in behaviour, can provide experiences that might challenge their previously held way of work. Such an approach will need to include:
 - raising the motivation to act;
 - raising self efficacy of participants to act;
 - helping individuals to record their actions and track their progress

How Should the Programme Be Structured?

In looking at the structure of the programme, we have considered three key aspects:

- What should happen prior to the start of the programme.
- What should happen during the programme.
- What should occur to support the participants' development within their organisation.

What Should Happen Prior to the Start of the Programme

Before sessions begin, participants should receive an initial assessment of their AED stage (Allen and Wergin, 2009). The purpose of using an initial assessment is for the programme facilitators to see which stage participants are in, track the overall progress at the end of the programme, and to provide support during the programme. Furthermore, there will be pre-designed questionnaires made available to those on the programme. They will be encouraged to share this questionnaire regularly with their colleagues so as to demonstrate and observe their progress.

Stand-alone briefings informing leaders of concepts like ego development, sense-making, complexity theory, and organisational theory should be provided so that participants are clear about the intention of the programme.

What Should Happen During the Programme

There are three fundamental parts to a programme designed to stimulate the advancement of school leaders' stage of AED. The programme structure should have a basis of three elements that are cyclical in nature and evolve/progress from one another, allowing the participants to reflect and act upon the previous. These are:

- Group Development Sessions - *group collaboration and discussion through analysing a case study/experiencing field-work.*
- Individualised Development Sessions - *an opportunity to reflect upon the learning that has taken place and consider how to translate this learning into changes within their work environment.*
- Individual work - *engaging with reflections through journaling prompting future action points.*

The following three parts must be used in a cyclical nature to allow participants to reflect and act upon the previous session. To facilitate and stimulate AED, the following characteristics must be integrated into each part of the programme. These are:

- a stimulus which is personally important, emotionally engaging and interpersonal in nature (Manners, Durkin and Nesdale, 2004)
- frequent interactions with challenging environments, or other individuals, which can stimulate a disequilibrium of schemas (Cunningham, et., 2019)
- a time for self-reflectance and self-sense-making (Pfaffenberger, 2005)
- group discussions which provide connections to other leaders through collaborative sense-making balanced with opportunities to act autonomously and successfully, improving self-efficacy (Allen and Wergin, 2009).

The following sections go into greater detail around the structures and processes involved in Group Development Sessions, Individualised Development Sessions and Individual Work.

Section 3a. Group Development Sessions

Group Sessions should encourage and expose individuals to sense-making. Within the literature, sessions have been focused around two activities: a case study (Vincent, Ward and Denson, 2014) or fieldwork (Pfaffenberger, 2005).

- A case study serves as a structured tool in which to investigate wicked problems. The purpose of the problems is to interrupt individuals' notions and assumptions providing a sense of disequilibrium.
- Fieldwork is work that practitioners can do within their schools (Ward and Denson (2013; 2015))

In this section, we will outline:

- Key challenges within group development sessions,
- Ways of overcoming key design challenges in ensuring effective group work.

Key Challenges in Group Development Sessions

Adult development theory would inform us that the key challenges in supporting learning would be:

1. Ensuring the task is sufficiently challenging to ensure individuals have to engage in sense-making (Maitlis and Cornelissen, 2014)
2. Helping individuals to comprehend multiple points of view and engage collaboratively with each other. Although important for engaging with wicked problems, it is only at the later stages of adult development where adults engage in a collaborative, multiple perspective approach on their own (Gilbride, James and Carr, 2021; Gilbride, James and Carr, Forthcoming). Sessions will therefore need to support participants to recognise multiple perspectives and to work with others to come to a collaborative, more complex understanding.

What should Group Development Sessions Be Focused On?

Ensuring the task is sufficiently challenging to ensure individuals have to engage in sense-making.

The field work or case study must:

- Contain a complex issue, or wicked problem (Rittel and Webber, 1973).
- Be highly interactive and experiential. The session should give individuals opportunities to experience challenges, environments and different individuals that they may not have otherwise encountered as it is so far removed from the individual's usual routines, roles and familiar circumstances. This enables the individual to participate deeply in the reflective process and in turn progress within the stages of development. This is supported in research by Kegan (1982) and Manners and Durkin (2000) who found that stage transitions occur due to a response to a

challenging event that is of an interpersonal nature which disrupts current thinking ('disequilibrating'), personally significant and emotionally engaging.

Helping individuals to comprehend multiple points of view and engage collaboratively with each other

Dialogic Inquiry is a method of instruction which can help to develop sessions which can both support individuals to understand different points of view and facilitate whole group sense-making. Wells (1990) defines dialogic inquiry as:

- Exposing different perspectives and the reasons behind them. Through discussion and questioning, participants can better understand situations, especially when the problem has few defined answers.
- Understand and challenge the views and opinions of themselves and others. The purpose of dialogue is to enable open-minded inquiry, removing fixed assumptions and beliefs so as to surface new ideas and perceptions, thus generating a depth of understanding that would otherwise not be reached.
- Helping to move towards a collective understanding. It is an opportunity to think together and practice how collective sense-making can work in practice.

Designing a session using dialogic inquiry will involve (Gravett, 2005; Bound et al, 2017; Mercer et al, 2019):

- Exposing individuals to different points of view and individuals articulating the rationale behind their ideas: each person having the space to articulate
- Encouraging individuals to share receive feedback on each others' perspectives. In revealing personal experiences and opinions, individuals can expose their own underlying beliefs and assumptions; learn to comprehend ideas from others. .
- Ensure the individuals within the group engage in collective sense-making. This is facilitated by the group lead, driven with the intention of supporting the group to formulate a collective perspective that is recognised by the whole group.
 - Encouraging the group to hypothesise about how their actions will impact the environment and the people within it (Cunningham, *et al.*, 2019)
- Develop a supportive environment and structure to debate around points of view within the group

However, based on the findings from adult learning, there are two factors within dialogic methods that require further explanation and support:

1. *Multiple perspectives can be challenging for individuals to handle.* We know from research into adult development that individuals need support in handling multiple perspectives and contradictory information (Kegan and Lahey, 2009; VanGronigen et al, 2020; Gilbride, James and Carr, 2021).

de Oliveria and Nisbett (2017) recognise that achieving these goals require individuals to:

- 1) encouraged to regard the issue as an object which can be viewed as one part of a larger system, as opposed to a discrete entity. To Pay attention to context and relationships alongside the response to change
- 2) Recognise and work with contradictions and paradoxes.

To promote individuals recognising multiple perspectives, individuals need to be:

- Facilitators need to guide and prompt participants to observe how this issue affects the context (the organisation and the systems in place within the organisation), the relationships within the context (staff, students, etc.) and relationships to the context (how staff and students react to the organisational systems).
- Considering the role of powerful knowledge in helping individuals to transform ways of thinking (Yang, 2003; Halpern, 2013), helping individuals to have a considered understanding of complexity theory could be a useful aid. Complexity theory describes how organisations work. Part of this theory is the recognition contradictory changes are to be expected; that everything within a system can be inter-connected; the system can be largely unpredictable; that the size of an input does not mean that the same output is likely; that a system can evolve, shift and look different depending on perspective (Morrison, 2002; Hawkins and James, 2018). Facilitators can prompt individuals to view the problem through the lens of complexity theory, using their prior learning as a support for understanding the complexity within the situation.

2: Encouraging individuals to use the experience to understand and evaluate their own way of thinking through these problems and to interrupt how they would usually process situations.

The purpose of collective sense-making is to expose individuals to alternative approach **and, through this process**, challenge their preconceived ways of working. However, It can be very challenging to support individuals to develop self awareness in their own behaviour and that of others (Loevinger, 1987) as well as interrupting how individuals conduct their sense-making.

Argyris and Schön (1974) work in adult learning could be supportive to designers for two reasons: First, Argyris and Schön (1974) exposure how , in an individual's description of what they do and why (Referred to as a 'Theory of Action) there is a distinction between:

- espoused theory (what they say they believe)
- theory in use (what they actually do).

Since there is potential for a difference between what gets said and what gets enacted, raising one's self-awareness to bridge this gap is important if we are to support growth.

Second, Argyris and Schön's Double Loop theory (1974) suggest an approach which exposes theory of action, the difference between what they say and do and could interrupt strongly held sense-making approaches. They suggest that programmes need to:

- To publicly test their underling theory through dialogue: the dialogue and questioning needs to be structured so that individuals can
 - Explain what they would do, why.
 - Be questioned by participants and facilitators on their perspective - critically,
 - the underlying beliefs and assumptions behind it
 - the difference between their beliefs and actions.
- To use this examination to generate purposeful change through
 - Reconsider their initial theory of action and create new meanings (ideally, as noted above, through collective sense-making)
 - Production of new actions
 - Generalisation of results

The consequences of Double Loop learning for the design of these materials is to

- a) Reinforce the need for clear structures in dialogue to expose individual underlying assumptions
- b) Develop a new theory of action.
- c) Mechanisms for planning new actions and to generate results

In relation to point C, participants should be encouraged to have time and space to reflect on the problem and how it was resolved as a team. Such reflection will require structure within sessions, and dedicated time outside of sessions (See 'Individual Development Sessions').

Drago-Severson and Blum-DeStefano, (2014) suggested how the following stimulating questions can provide a guide this process. In answering these questions, the significance of experiences and the need to examine these experiences are highlighted to the individual. This will lead to an increased awareness of the self and how the self can impact others which has previously led them to their current point (Avolio and Gibbons, 1989):

- Were there any new ideas, experiences and points of view heard? Has this made them reconsider their final perspective of the case study in contrast to pre-existing notions before the session began?
- Where do they think their ideas or points of view originated from? Was it from an experience at work, an attitude or view point that was instilled from parents etc.?
- How did their ideas, experiences and points of view differ from other leaders? Were any similar?
- How do they feel they worked within the group? Were they confrontational at times? Why? Were they open? Emotional? Unsure/unconfident?
- How did the experience compare to collaborative group work within their organisation?
- Had their organisation experienced a similar wicked problem? How did they go about resolving it? Was it a collaborative discussion? Would they have changed the outcome?
- Is there any practice or ideas that can be taken from the experience?
- How do they feel about replicating/adopting the practices ready for the next session (Group and Individualised Development Sessions)?

Summary

Group Develop Sessions must provide a stimuli, the form of a case study, that is sufficiently challenging and interactive. The sessions themselves should follow a strict structure, focused around dialogue. In these sessions, participants need to be encouraged to share their perspective and the reasons behind it. Participants should expect for a) their point of view to be challenged so as to uncover their underlying assumptions b) to be open to recognising multiple perspectives around the problem/issue. Participants need to be facilitated to engage in collective sense-making and to come to consensus. Processes need to support how participants handle multiple points of view and how they interact with the underlying assumptions of their point of view. Time should be given to individuals so they can reflect on their experience and begin to consider the actions they need to take in their own learning.

Section 3B. Individual Development Sessions

The rationale for individual development sessions is to

- To reflect upon the learning that has taken place
- To consider how to translate this learning into changes within their work environment.
- To reflect upon any successes from their previous experiment and to consider the granular next steps for their continued practice in the group development session

Adult development theory would inform us that the key challenges in supporting learning would be:

- 1, Understanding learning and experiences
2. Promoting behaviour change

Understanding learning and experiences

Argyris & Schön's (1994) Ladder of Inference could be used as a way of mapping the process of the participant's own thinking, making it conscious to them and to others and helping them to move towards collective action (Brown, 2007). Rather than focusing on right or wrong, it is helpful in guiding our understanding of how we work in terms of the assumptions we make and how quickly we draw conclusions. The Ladder of Inference has five stages that could be used to support the dialogue between the participant and the facilitator during the Independent Development Session.

These are:

- Select your data or reality
- Describe the data selected in your own words, applying meaning and labels. This meaning might be influenced by personal or cultural experiences.
- Explain what you've selected and why. This is often where our inferences, driven by our subconscious beliefs and values, influences our sense-making.

- Evaluate how we judge the situation or behaviour (depending upon the data selected).
- Propose involves deciding whether or how to respond and proposing an action.

Together with the facilitator, the individual should seek to set up an 'experiment' - the concrete actions and ways of working that they will take into their work setting. This will provide the basis for their reflective work prior to the next session.

After having implemented the concrete actions in their setting, there should be another session between the participant and the facilitator so they can reflect on how they feel their agreed actions have translated into their environment. This is an opportunity to refer back to the 'Ladder of Inference', this time in reverse.

The following questions could be used to support individuals in understanding their experience, narrating their sense-making as they do:

- Why have I chosen this course of action?
- What underpinning belief led to that action?
- Why did I come to that conclusion?
- What assumptions am I making?
- What data am I drawing upon and why?
- Are there any facts I should be considering?

Once sufficient time has been given to internally dissect the learning from their experiment, it is important to prepare the participant for their next Group Development Session.

Promoting and Supporting Behaviour Change

A critical aspect of promoting changes in sense-making is exposing individuals to experiences that provide stimuli for reflection. Part of this process is engaging in ways of interacting differently. These interactions produce evidence, which an individual can later reflect on. These different interactions could be small or large scale - but in either event, they require the individual to behave differently.

For this reason, motivating individuals to attempt alternative behaviours will be a key part of individual development sessions. However, this has been rarely discussed in the adult development literature. We therefore felt the following theories might be useful structures to help design effective individual development sessions that motivate individuals to adopt new behaviour.

- Self-Determination
- Self-efficacy

Self Determination Theory

Deci and Ryan (1985) developed a theory of motivation, known as Self Determination Theory. Two key assumptions of the theory are that:

- The need for growth drives behaviour: New experiences and gaining mastery over challenges are essential for developing a sense of self.
- Autonomous motivation is important: A need to gain knowledge or independence drives intrinsic (or 'internal') motivation, which is considered an important factor in supporting individuals to act and learn in circumstances that are challenging

According to Self-Determination Theory (Deci, Olafsen and Ryan, 2020) there are three psychological needs that enhance motivation to engage in a behaviour. To ensure the success of the programme, it will be necessary for us to consider how we ensure the three following needs are met for participants:

- **Autonomy:** The participants will need to feel in control of their own behaviours and in setting themselves goals. Taking an active role in setting the direction and taking action towards achieving their desired results plays a major part in helping people feel self-determined.
- **Connection:** A sense of belonging and attachment to their peers is an important motivator. Therefore, the group dynamics of the programme have a huge significance on whether they act as a catalyst for motivation or a deterrent.
- **Competence:** Participants need time and support to learn new skills and develop a sense of mastery. When they feel they have the capabilities required for success, they are more likely to act upon their goals.

To further expand on developing competence, we would suggest exploring Self-Efficacy theory.

Self-efficacy

Self-efficacy relates to a person's belief in their ability to successfully accomplish a task and achieve a goal (Bandura, 1977). Self-efficacy has been recognised as an important feature within a school leaders' practice (Gümüş, S. & Bellibaş, 2020, Skaalvik, 2020, Federici and Skaalvik, 2012). Therefore, when considering the actions of an individual school leader, we need to be prepared to engage not just their awareness of behaviours relating to stages of high capacity sense-making, but also prepared to raise their belief in their internal capacity to undertake these actions.

Facilitators will need be aware of the key components which can develop an individuals self-efficacy (Bandura, 1997; Pfitzner-Eden, 2016):

- Facilitators should recognise that self-efficacy is specific: whilst they might have greater belief in one action it does not help their self-efficacy in another domain.
- **Modelling:** Encouraging individuals to engage with others who view themselves as similar to them (i.e. a 'peer') who can explicitly exhibit this behaviour can raise self-efficacy.

- Mastery experiences, which allow an individual to practice and receive information on their performance. Facilitators need to be aware of
 - Generation of information: it is not just about being successful or failing but also receiving information as to why they were/were not successful.
 - To recognise the influence of interpreted previous performance or the extent to which a skill has been mastered.
- An individual considered a credible source can persuade an individual that they could reassure and persuade them. Facilitators can operate in this role but also ensuring that they understand the network of support of their participant can be useful to facilitate this.
- Emotional support to help ease worry or concern. Facilitators will need to be sensitive to the emotional needs of participants: to support this directly or to make use of the participants peer/support network.

Summary

Individual development sessions are intended to act as a the bridge between Group and Individual Work. They will help individuals to apply their learning into their environment in the form of an experiment, and help them to translate their experiences into concrete reflections. The sessions will motivate and support individuals' to act in their environment.

Section 3C: Individual Work

Individual work is defined as the course work that individuals complete in-between individuals and group development sessions. For this work to have an effect, it will need to be structured with a clear purpose.

Rationale for Individual Work

There are three key reasons for asking individuals to engage in work in between group and individual development sessions.

1. Impact. Without an active engagement to stimuli which provoke challenge to notions, information and facts, observations remain static within existing ways of thinking (schema) and do not promote change (Kegan and Lahey, 2009). For this reason, Individual Work is the part of the adult development cycle
2. Self exploration. . Self exploration is when an individual explores their learning and a) uses this learning to help them understand themselves and their environment b) they use their everyday environment to make sense of their learning so as to make further discoveries. Individuals who engage in this behaviour are likely to experience high personal growth (Ruff, 1989)
3. Reflection. Another reason for individual work to promote reflection. Through deep reflection, the individual can see the changes in the self and reflect more on self-knowledge and effectiveness. Deep and meaningful reflections serve to accommodate the new information into new approaches to problems (Mezirow, 1997). Whilst reflecting, leaders should be encouraged to understand how they have

been shaped by powerful and influential people, events, places and how this affects them and others in turn (Bandura, 1997; Allen and Wergin, 2009).

Structure of Individual Work

Drago-Severson and Blum-DeStefano (2014), Mezirow (1997) would suggest that participants should be encouraged to reflect in a variety of ways:

1. Participants should be asked to formally write up their personal experiences of their learning **after** individual and group development sessions. Formally documenting their learning will help individuals to summarise their experience, making it easier for them to transfer into their own environment. Such work should
 - a. Ask individuals to summarise what knowledge they have development
 - b. Ask individuals to consider how they will develop their learning in subsequent sessions .
 - c. Prompt individuals to consider what learning they should explore in their daily work.
2. Journaling in between sessions. Participants should be encouraged to undertake a structured diary/journal, whereby participants are asked to reflect at regular intervals about how their learning is impacting their daily work. Questions should
 - a. prompt individuals to revisit their prior learning and to make sense of this learning within their work.
 - b. encourage individuals to consider now just the problem but the structure of the problem; how they are thinking about the problem and appropriate prompts to help them think about the problem in different ways (dialectically, Basseches, 2004; in relation to complexity theory, Hawkins and James, 2018; and wicked problems, Rittel and Webber, 1973)
 - c. Prompt individuals toward their own actions and commitments to change.
3. Class assignments - Work should be set by facilitators which requires/demands individuals to act upon their learning in specific ways that is related to the learning within their sessions. Engaging/designing these activities should take into account:
 - a. Balance structure from the session with their own learning.
 - b. Engages the individual in activity that will raise their belief in their ability to apply their learning successfully i.e. raise their self-efficacy.
 - c. Activities that motivate individuals (see Individual Group Development sessions for definitions on motivation)
 - d. Provide a formal form of feedback focusing on being both supportive and challenging to aid the individual in examining their own assumptions, support their development and offer differing views and perspectives. This could be from the facilitator but it could also be peer feedback.

Conclusion

In this paper, we have outlined the case for an approach to developing school leaders' sense-making capability. We have discussed how a key mechanism of influence is how leaders comprehend and respond to wicked problems within their organisation. These

problems, situated within complex organisational contexts, demand that individuals engage in a process of sense-making. This process of sense-making is largely determined by the Adult Ego Development (AED) stage in which the leader resides. A leader's stage of AED can substantially affect how they will 1) comprehend the problem 2) respond to the problem and 3) how they will engage with others. It is recognised that later stages of AED incorporate ways of sense-making that could be advantageous to addressing the wicked problems that school leaders face in the responsibilities of their role, and hence the need to develop school leaders' sense-making capability.

However, research into sense-making with school leaders is not common, and therefore, there's no publicly available approaches to school leadership development which currently incorporate the development of leaders' sense-making capability. There are other areas, such as the motivation of behaviour and role of knowledge, which are under-theorised in the field of Adult Development and have been incorporated into recognised approaches for supporting the development of school leaders.

We have argued that there is a gap for a new approach to school leadership development and what this

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