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Research paper

# Leading Reflective Practice – Reviewing the Evidence

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# Contents

# 1. Introduction

1.1 The purpose of this review is to examine, discuss, and share evidence on what is reflective practice, what impact does reflective practice have, and what educational leadership practices are associated with encouraging and supporting reflective practice? We begin by considering the question "what is reflective practice?" We discuss developments in theories, concepts, and approaches for reflective practice, then we consider leaders' use and leadership of reflective practice. Next, we focus on understandings and use of reflective practice in the education sector specifically. We then consider what impact reflective practice can have and identify the nature, features, and conditions of effective and impactful reflective practices from evidence outside and inside the education sector. We conclude by considering the policies, frameworks, resources, and professional learning opportunities supporting reflective practice in the Welsh education system.

## 2. Method

2.1 The literature covered for this review was selected through three main phases. First, a general search on Google Scholar identified the most frequently cited works on reflective practice over the past decade, between 2013 and 2023. Access to a wide range of academic journals and databases was obtained through the University of Toronto library. An initial search with the keyword "reflective*" within the timeframe of the past decade returned more than 1.4 million results. By focusing on the most cited works, this search allowed the identification of founding authors of reflective practice and the selection of recent works building on foundational theoretical understandings of reflective practice. This first phase was concluded by the elaboration of a broad understanding of how reflective practice has been defined over time as well as tensions about understandings of the concept.

2.2 The second phase of the review process consisted of a refined search with the following keyword combinations: "reflective practice"/ reflect*/reflect* + leader*/ teacher*/practitioner*/education*/outcome*/" student outcome*"/" learner outcome*"/impact*. This phase focused on selecting, gathering, and reviewing works on reflective practice in general and more specifically in education, and identifying more sources based on the references cited. Literature reviews offered a wealth of references to empirical studies. Empirical studies were selected based on their alignment with understandings of reflective practice laid out in the theoretical works reviewed. This phase also involved removing sources that only superficially included reflective practice or lacked relevant and beneficial insights and findings in relation to the research questions guiding this review. When certain works seemed to be a mere repetition of ideas found in original works with limited additional insights, those were removed and only the original work was included. Sources were also removed when reflective practice was applied to students only or applied so specifically to fields unrelated to education that drawing a parallel would be difficult. Finally, works were also removed when presenting outdated understandings of reflective practice or when they were older than ten years and not considered foundational or pivotal works.

2.3 The third and last phase consisted of a Google search with the same keywords listed above to identify grey literature, i.e., policy documents, professional documents, and other forms of non-academic published work, on reflective practice. During this phase of the review, sources were selected based on their alignment with current understandings of reflective practice and their added value to the review in accordance with the guiding questions concerning what is reflective practice, what impact does reflective practice have, and what educational leadership practices are associated with encouraging and supporting reflective practice?

# 3. What is Reflective Practice?

In this section we discuss developments in theories, concepts, and approaches for reflective practice, and then consider leaders' use and leadership of reflective practice.

## 3.1 Developments in Theories, Concepts and Approaches for Reflective Practice

3.1.1 Forms of reflective practice have a long history. For example, Ewing et al. (2021) suggest that many world religions, Eastern philosophies, Indigenous traditions, and other historical rituals and practices involve forms of reflection. The formal recognition of concepts related to reflective practice, including for education practice, can be traced back almost 100 years to the work of John Dewey. In How We Think: a restatement of the relation of reflective thinking to the educative process, Dewey (1933) argued that reflective practice for teachers involves systematic thinking about their experiences and evidence from their experiences to inform their knowledge, beliefs, decisions, and practices. This is considered to lead to more professionally meaningful and relevant practices compared to decisions based solely on established routines.

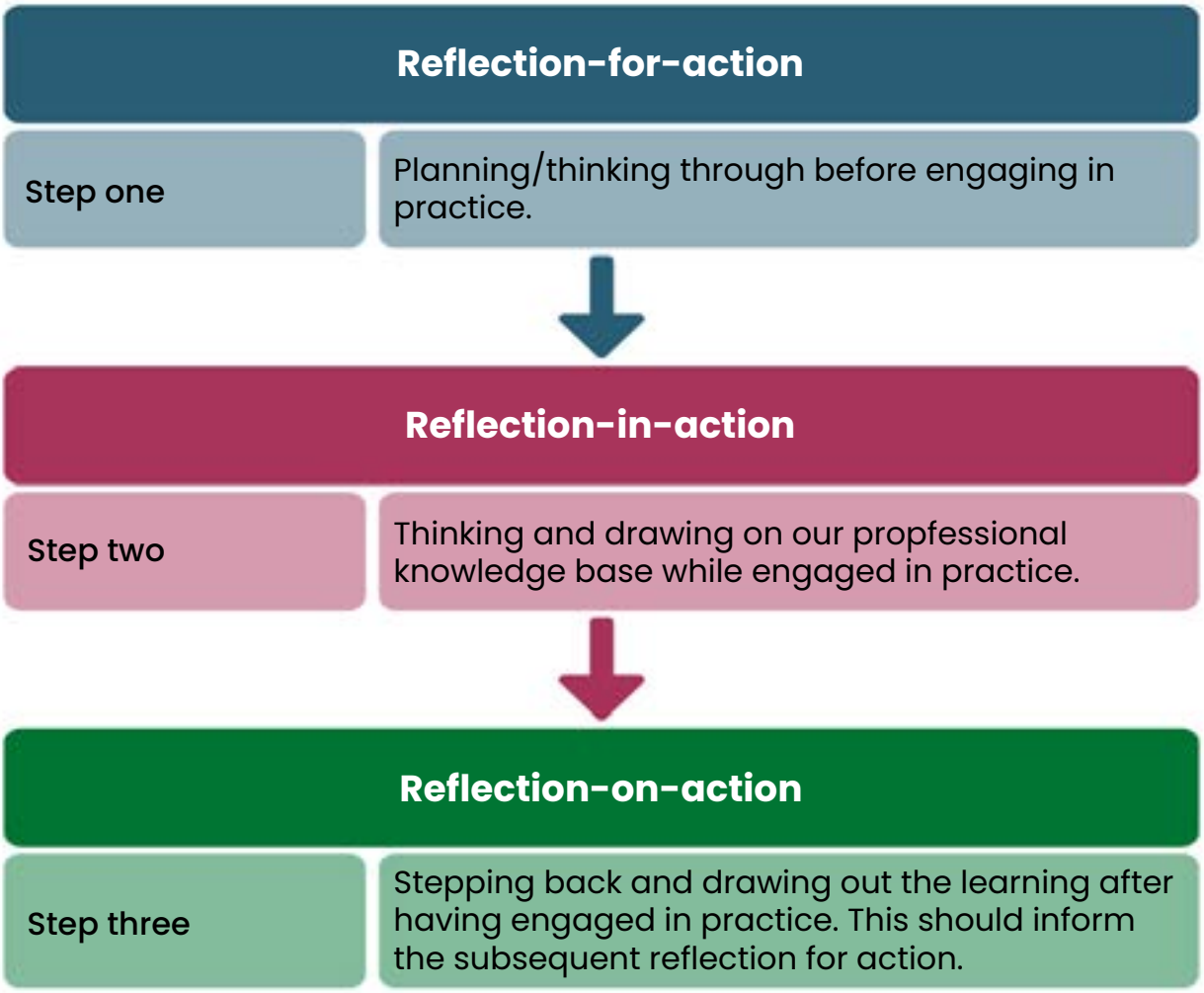
3.1.2 Fifty years later, Donald Schön's seminal book *The Reflective Practitioner: How Professionals Think in Action* (first published 1983, reprinted in 1992)[1] was significant in raising awareness of the importance of reflective practice for professionals' work. Drawing on examples across professions, including education, Schön argued for shifting from professional activity being based on a presumption of technical rationality to an approach which valued the importance of reflection-in-action. Schön (1992, p. 21) explained: "According to the model of Technical Rationality… professional activity consists in instrumental problem solving made rigorous by the application of scientific theory and technique". In this approach, it is expected that:

> Problems of choice or decision are solved through the selection, from available means, of the one best suited to established ends. But with this emphasis on problem solving, we ignore the problem setting, the process by which we define the decision to be made, the ends to be achieved, the means by which to be chosen. In real-world practice, problems do not present themselves as givens. They must be constructed from the materials of problematic situations which are puzzling, troubling and uncertain. In order to convert a problematic situation to a problem, a practitioner must do a certain kind of work. He must make sense of an uncertain situation that initially makes no sense. (Schön, 1992, pp. 39-40).

1 The 1992 edition was used in conducting this review.

3.1.3 While the use of evidence in education is important and some decisions may be relatively routine, reflective practice combines the use of knowledge-in-action, the tacit knowledge and professional judgement of day-to-day practice, with reflection-in-action. This allows practitioners to think about and shape the situation they are in and to try out next activities and experiences. Schön argued it is this reflective practice that is "central to the "art" by which practitioners sometimes deal well with situations of uncertainty, instability, uniqueness, and value conflict" (1992, p. 50). At a later stage, reflection-on-action involves professionals reflecting on an experience, for example what happened, what they did and what they might do differently in the future. Such reflection-on-action is part of professional learning and can contribute to improving professional knowledge and practices. More recently, Thompson and Thompson have updated and expanded Schön's work to add a stage of "reflection-for-action" as part of a process of reflective practice (see Figure 1).

**Figure 1: Reflection-for-action, reflection-in-action and reflection-on-action (Source: Thompson & Thompson, 2023, p. 16)**



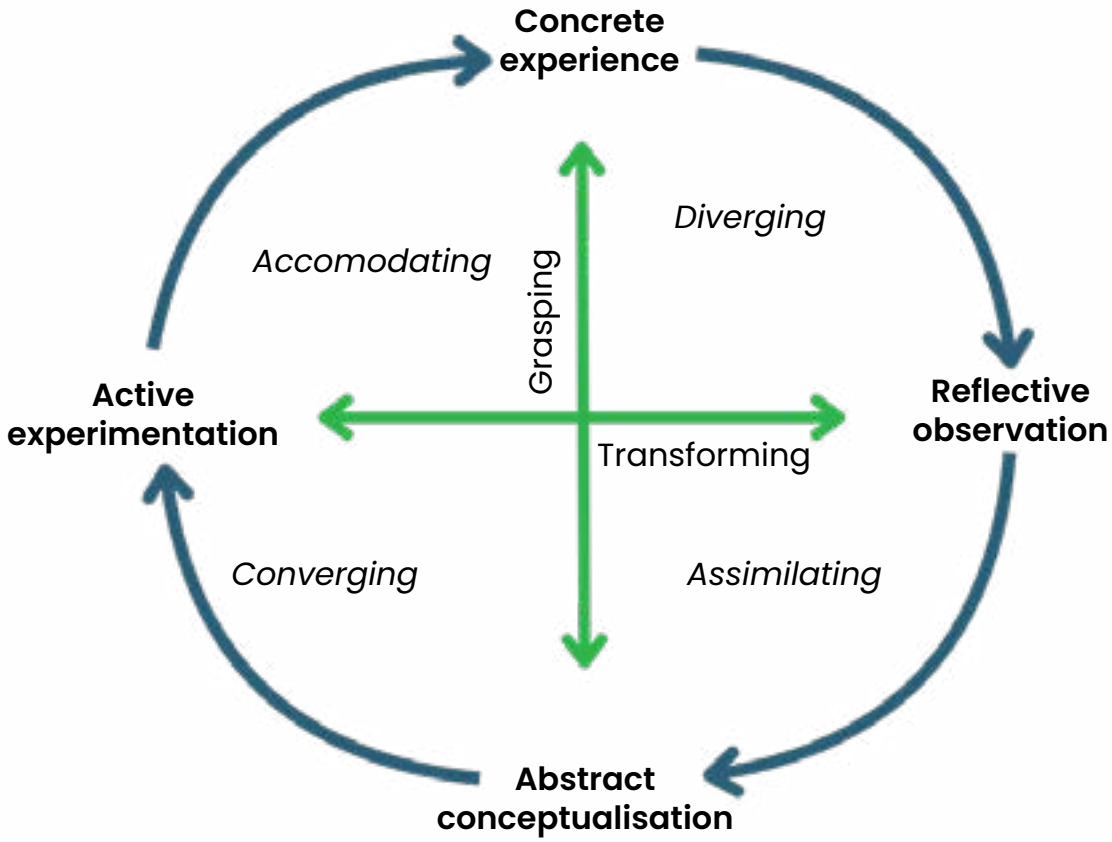
3.1.4 Another concept associated with reflective practice for improved professional effectiveness is double loop learning. Agryis and Schön (1974) argued that people tend to have mental maps that guide how they act. In "single loop learning", goals, values, plans, and rules are operationalized rather than reflected on and (re)considered. In contrast, "double loop learning" and engagement in professional reflective practice for the critical scrutiny of the situation to inform potential actions can lead to more effective professional practices.

3.1.5 The concept of double loop learning and reflective practice are also central to experiential learning theory (ELT). Kolb (1984, p. 41) defined ELT as: "the process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming experience". As depicted in Figure 2, the experiential learning:

> process is portrayed as an idealized learning cycle or spiral where the learner 'touches all the bases' – experiencing, reflecting, thinking and acting – in a recursive process that is responsive to the learning situation and what is being learned. Immediate or concrete experiences are the basis for observations and reflections. These reflections are assimilated and distilled into abstract concepts from which new implications for action can be drawn. These implications can be actively tested and serve as guides in creating new experiences. (Kolb & Kolb, 2009, p. 44).

3.1.6 As a form of experiential learning, reflective practice involves learning, unlearning, and relearning through reflecting on experience to develop professional knowledge and to try out new ideas and practices to inform and improve future decisions and actions. Such processes are not purely technical or cognitive, they also include affective dimensions of reflecting on what a person was thinking and feeling and can include consideration of values, ethics, and moral purpose (Boud et al., 1985). Hence, as well as creating potential for new knowledge, reflective practice can also serve to validate a person's prior knowledge, beliefs, and values (Boud et al., 1985).

**Figure 2: Experiential Learning Cycle (Source: Kolb & Kolb, 2009, p. 44)**




3.1.7 In essence, reflective practice recognizes that professional work is complex and requires careful consideration of, and learning from, situations and experiences. Learning by doing or even learning from doing is insufficient, a more advanced meta-cognitive process of reflecting on thoughts, feelings, assumptions, decisions, and actions is needed to inform professional learning, knowledge, and practice. The central reflective question is not "what did I do?", but rather "what did I learn during and from this experience?", "how will this learning inform my future professional practice?", and "what will I do next?".

3.1.8 Engaging in effective reflective practice involves being clear about the intended purpose of undertaking reflection and the desired impact of such reflection, for example for informing, changing, and improving knowledge, practices, and outcomes. Ellis et al. (2014) argued that systematic reflection occurs through combined motivational, cognitive, and behavioural functions. Motivational purposes and outcomes include the participants' willingness to engage in reflection and their capacity to reflect on, and revise, their knowledge and understanding. Cognitive functions and outcomes involve enriching and expanding knowledge to consider a range of perceptions, causes, and possibilities for successes and failures when reflecting on events and experiences. Finally, behavioural effects and outcomes relate to actual changes in behaviour, including inter-personal skills and work performance. Ellis et al. (2014) explained that reflection can draw on objective evidence, such as data or video recordings of events, or can be more subjective through individual recall and interpretation. Being thoughtful about the intended purposes and outcomes of reflection, and the linked functions of reflective practice, is important.

3.1.9 Another goal of reflective practice can be to narrow the gap between theories-in-use and espoused theories (Argyris & Schön, 1974). Theories-in-use are tacit and guide behaviours in unconscious ways. Espoused theories are the values and beliefs that individuals embrace and believe guide their behaviour. However, misalignment between what individuals say they would do or say in a given situation and what they actually do or say in that situation can vary greatly. Reflection is an opportunity to uncover misalignment between theories-in-use and espoused theories to identify which underlying beliefs and values guide individuals' behaviours to alter them for improved outcomes.

3.1.10 Although early theories of reflective practice tend to focus on the individual process of reflection, Thompson and Pascal (2012) argued that it is crucial to take into account the emotional aspect of reflection and the social context within which reflection occurs as well as the issue of power and dominance of the status quo that cause certain topics to not be openly discussed. A prominent theme in some current theorisations of reflective practice stress that it should be unsettling and include critical inquiry and questioning of the status quo, of established norms and routines, of power structures, and of the consequences of biases and assumptions.

3.1.11 However, recent concerns have been identified about the negative consequences of self-reflection that can lead to a spiral of worry, concern, and stressful thinking. Based on a review of relevant literature, Kross et al. (2023) concluded:

> From improved performance, to enhanced health and well-being, to more harmonious social relationships, the literature reviewed above makes it clear that reflection can lead to a host of adaptive outcomes. It is just as clear, however, that when faced with negative events, whether they involve being the victim of customer mistreatment, or having too much work to do, self-reflection can transform quickly into rumination and worry, which undermine not only people's ability to think and perform well at work but also their health, well-being, and interpersonal functioning. (p. 446)

Therefore, the purpose, content, and culture in which reflective practice takes place is important.

3.1.12 By contrast, other recent writing indicates that reflective practice can be supportive for wellbeing and development. Drawing on examples in the medical field with nurses and doctors, Wilson et al. (2022) proposed that reflective practice can, and should, be:

- a nurturing practice that builds the capacity to be mindful and fully present and to respond to everyday experiences consciously and with awareness rather than reactivity.
- a nourishing practice that enhances self-awareness and empathy, improves the impact of leaders on those they lead, and enhances their relationships.
- a healing practice that allows us to learn from any situation, grow from stress and trauma, and be prepared for what life brings in the future. (p. 258)

3.1.13 While Schön's original work focused on the individual reflective practitioner, and individual reflection remains important, the effectiveness of collaborative reflection, including professional dialogue and reflection with peers, has been increasingly recognized (Walsh & Mann, 2015). Forms of collaborative inquiry and professional learning (Brown et al., 2021) are important, including in education workplaces. Discussing issues with colleagues and peers can allow individuals to consider perspectives that they may not have thought of and uncover beliefs and assumptions they are not aware of. Collaborative reflective practice can be an effective way of identifying innovative solutions and ways forward by bringing together various viewpoints and potentially different areas of expertise. Collaborative reflection is also a way of addressing hierarchical barriers to reflection to foster a safe and non-judgmental space for in-depth reflection.

## 3.2. Leaders Use and Leadership of Reflective Practice

3.2.1 The development of reflective practice is important for all professionals and practitioners, including in education (Schön, 1983, 1992). It is also important that leaders engage in their own reflective practice to support their development (Adler, 2016; Robson, 2022), including education leaders (Avilés, 2021), and that they support their teams to engage in and with reflective practice as part of their professional learning and work (Göker & Bozkuş, 2017).

3.2.2 Leaders reflecting on their experiences and drawing on insights and feedback from their colleagues is important. Based on previous research, Anseel and Ong (2021) identified positive effects of reflective practice for performance outcomes, team cohesion, communication, and information sharing. They suggested the following guiding questions for leaders' reflective practice:

- What did I do prior to, during, and after this experience?
- How effective was I in this situation?
- What has happened as a result of my actions and how could things have played out differently?
- What have I learned from this experience that will improve my performance the next time? (Anseel & Ong, 2021, p.262)

3.2.3 It is important for leaders to engage in their own reflective practice, to model that practice to their staff, and to support reflective practice in their workplaces. For some leaders, coaching on how to engage in, and support, reflection may be beneficial. Anseel and Ong (2021) discuss the importance of leaders providing opportunities for structured reflections, including consideration of positive or successful and negative or unsuccessful experiences. To support positive feedback to inform reflective practice, Anseel and Ong (2021) encourage leaders to express gratitude to staff, celebrate positive experiences, and focus on accomplishments.

3.2.4 Another crucial role is for leaders to be aware of, and address, potential barriers for themselves and for their staff to engage in effective reflection. In Table 1, Anseel and Ong (2021) outline some frequent potential stumbling blocks to engaging in reflection and ensuring reflection is effective.

**Table 1: Best Practices to Support Learning from Experience Through Reflection (Source: Anseel & Ong, 2021, p. 275)**

| Objective | Potential stumbling block | Best practice |
|---|---|---|
| Engaging in Reflection | Leaders may have a bias for action and do not take time enough to deliberately reflect on experience | • Teach reflection as a day-to-day activity in leadership development programs.<br>• Encourage people to develop a reflection routine (e.g., reflect at a weekly fixed time, use a journal to help reflection through writing).<br>• Create work conditions (e.g., reduce time pressure, increase task variety, use dynamic performance standards) that are conducive to reflective thinking. |
| | The organisation seems to be missing reflective capacity to learn from previous experiences | • Include reflective capability as a desirable characteristic when hiring, for instance, by focusing on learning goal orientation, need for cognition, personality characteristics, or information-processing capacity.<br>• Encourage leaders to actively reinforce reflection among their employees by engaging in reflection themselves and articulating the value of reflection in their own work |
| | Some personality profiles may make leaders less inclined to reflect | • Help leaders reflect by assigning a coach trained in reflective inquiry and listening. |

| Objective | Potential stumbling block | Best practice |
|---|---|---|
| Engaging in more effective reflection | Risk of not consolidating key learnings for individuals and teams after crucial events | • Organise after-event reviews as a structured learning intervention.<br>• During after-event reviews, reflect on both successful and failed experiences. |
| | Leaders are concerned about the amount of time and effort required to conduct complicated forms of structured reflection | • Use shorter and simple forms of structured reflection. Even briefly reflecting on others' experiences, for instance in the form of case studies, can improve performance. |
| | Leaders' reflection is not effective in accelerating learning from experience | • A coach can help provide structure, direction, and focus toward goals in reflection. |
| | Leaders work in situations where norms are ambiguous and there is uncertainty about the desirability and appropriateness of particular work behaviors | • Give people flexibility to engage in unstructured reflection on their own, deciding where, when, and how to reflect in the way most meaningful to them. |
| | Reflection turns into rumination, with leaders getting stuck in a negative downward thought spiral | • Learn techniques (e.g., from cognitive psychology) to overcome maladaptive reflection or involve a coach to help them reflect more constructively. |
| | Reflection leads to cognitive entrenchment, blocking creativity and innovation | • Encourage leaders to engage in imaginative reflection. |
| Improving wellbeing and motivation | Exhausted leaders with low levels of well-being and energy | • Regularly reflect on positive qualities and positive events. |
| | Leaders are at risk of burnout or suffer from low levels of motivation | • Encourage leaders to enough take time off, giving them time and space to constructively reflect on work issues. |

3.2.5 Having considered the original theories of reflective practice and reflective practitioners, as well as current understandings and approaches including for leaders' own reflections and for their leadership of reflective practice, we turn now to consider current evidence specifically for reflective practice in the education sector.

## 4. Understandings and Use of Reflective Practice in the Education Sector

4.1 There is a large and growing literature about the concept and use of reflective practice in education. In this section, we discuss definitions of, models for, and approaches to the development of reflective practitioners from initial teacher education and through continuing professional learning and development. We consider what reflective practice involves for pre-service teacher candidates, in-service teachers, and for emerging and established education leaders.

4.2 While Dewey's (1933) original work on reflection was focused on education, there have been many subsequent additions, revisions, interpretations, and adaptations to the concept of reflective practice and being a reflective practitioner. This can result in a lack of clarity about what specifically reflective practice means for education workers. In a chapter discussing reflection in teacher education, Korthagen (2001) drew on existing concepts of reflective practice plus applications to teacher education to offer the following definition: "Reflection is the mental process of trying to structure or restructure an experience, a problem, or existing knowledge or insights. This reflection can take place after an action (reflection-on-action) or during the action (reflection-in-action)" (p.58). In her discussion of reflection for teachers' professional development, Thompson (2021) offered the following definition: "reflection can be any activity that causes us to think about experiences in ways that encourage questions, new thoughts and potential actions, which in turn could lead to changes in perspectives or behaviour" (p. 25).

4.3 There is a plethora of models of reflection for professional development that have been used and adapted inside and outside of the education sector. In Thompson's (2021) "guide for teachers" about reflection as professional development, she summarized several of the key foundational models of reflection (and related models such as experiential learning) (see Atkins & Murphy, 1993; Boud et al., 1985; Jasper, 2013; Gibbs, 1998; Bolton, 2001; Johns, 2000; Kolb, 1984; Mezirow, 1997; Schön, 1991). Based on these models, Thompson (2021) identified the following key principles for reflection:

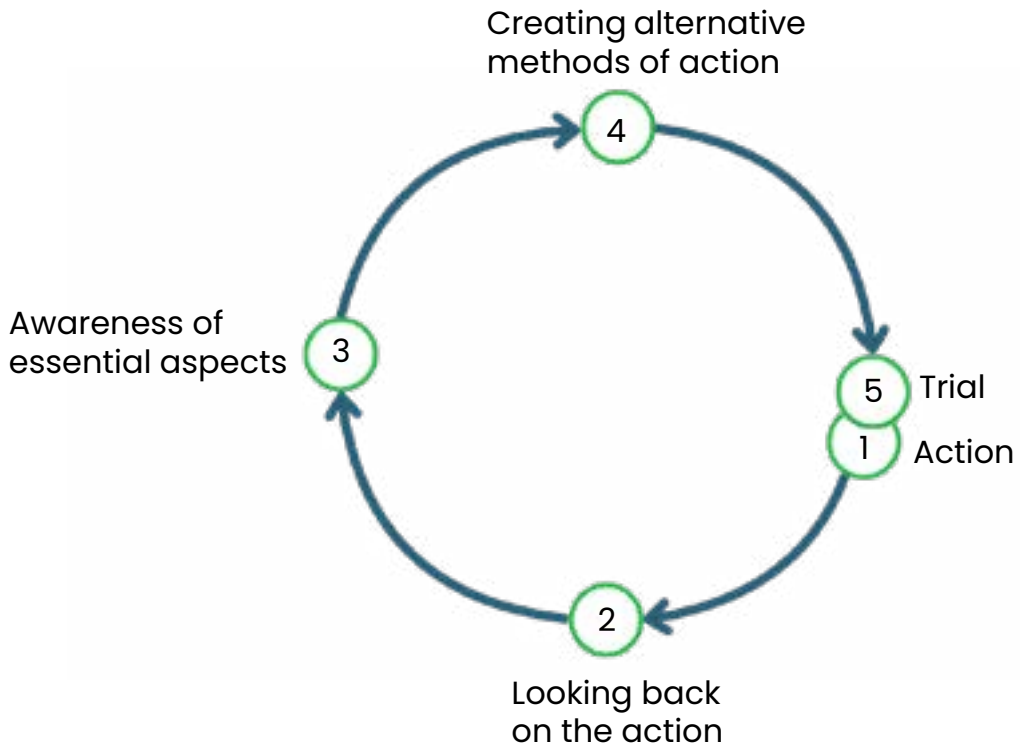
- Reflection usually relates to an experience;
- Raises awareness of events;
- Provides the opportunity to view different perspectives;
- May involve acknowledging and examining feelings;
- Makes sense of experiences;
- May lead to further investigation and learning;
- Increases self-awareness;
- Provides a basis for change;
- Considers alternatives for action. (p. 27)

4.4 Learning about, and opportunities for, reflective practice during initial teacher education are necessary to support aspiring teachers to become reflective practitioners over their career. Korthagen (2001) proposed that teacher education should involve "spirals" of reflection. He explained that:

- The process of reflection should address the student teacher's concerns or learning needs and stem from their own experience. A supervisor such as a teacher educator can support student teachers in gaining such experience.
- Teacher educators are expected to offer opportunities that build on the learning needs identified to ensure the objectives defined are met. The supervisor should ensure that student teachers promptly move on to the next step of the spiral of reflection to allow them to apply their learning to real-world situations.

4.5 To support and facilitate spirals of reflection, Korthagen (2001) proposed the ALACT model of reflection. As indicated in Figure 3, ALACT is an acronym for: (1) Action; (2) Looking back on the action; (3) Awareness of essential aspects, (4) Creating alternative methods of action, (5) Trial. Therefore, the cycle of reflection begins with a concrete action (or experience) and ideally an action goal or goals to be achieved. After or during the action, the process of looking back on that action involves reflection, especially if the intended action goal was not realised or something resulted in a question or issue for reflection. In the process of reflection on action, a deeper consideration of what has happened and why may result in considering specific aspects of the experience differently (awareness of essential aspects). By reflecting deeply, different or alternative future actions or adaptations of current actions may be identified as needed, especially if original action goals are not going to be achieved (Creating alternative methods of action). The reflection process involved in stages 3 and 4 of the model is where resistance is most likely to be met, as people may struggle to examine and change their perceptions and actions. However, through reflection leading to improved understanding and action, these stages in the process can also be the most fruitful. The final step is to trial whatever approaches have been identified as needed to achieve the action goals. The cycle of reflection then begins again.

**Figure 3: ALACT Model of Reflection (Source: Korthagen, 2001, p. 62)**




4.6 In her review of literature on reflection in teacher education, Beauchamp (2015) emphasised the importance of reflection for the development of teacher candidates' professional identities:

> The challenge appears to revolve around the merging of the many dimensions of professional life that reflection might involve: the identity development of teachers in these contexts, with the accompanying emotional impact of identity exploration and construction; the taking of perspectives on reflection that might be less familiar; the struggle to achieve an 'embodied approach' merging both cognitive and affective aspects of reflection (p.136).

This involves a more holistic approach to reflection which includes appreciation of values, beliefs, hopes, and emotions. Alongside the importance of teacher educators explicitly teaching how to reflect effectively, modelling such reflection, and mentoring teacher candidates to become reflective practitioners, Beauchamp (2015) suggested that more meaningful reflection also involves allowing teacher candidates to make their own decisions about what to focus on in their reflections and what approaches to reflection are beneficial for them.

4.7 It is also important to note that the context in which individuals are attempting to become reflective practitioners matters. Beauchamp (2015, p. 129) argued that: "Along with recognition of the importance of the context in which reflection takes place to the learning that results is an acknowledgement that these contexts may be the cause of problems that hinder reflection". This recognition is particularly important in complex organisations such as schools when multiple factors affect an individual, their context, and their needs and experiences for reflection. Beauchamp suggested that meaningful reflection needs to incorporate context and social dimensions, including whether a workplace is conducive to deep

reflection and whether relationships are safe and trusting to engage in collective or collaborative reflection. Individual agency and capacity to be reflective, including learning from the past but shifting to a focus on positive changes for the future, matter in combination with the context and social relationships within the workplace (and/or the teacher education institution in the case of teacher candidates).

4.8 The need to reflect on the implications of the political, cultural, and social contexts of teachers' work has been suggested by Smyth (1992). He proposed the following four guiding questions for teachers' reflection:

1. Describe - what do I do?
2. Inform - what does this mean?
3. Confront - how did I come to be like this? and
4. Reconstruct - how might I do things differently? (Smyth, 1992, p. 295).

4.9 For serving teachers, approaches to being a critically reflective teacher have been proposed. Brookfield (2017) offered the following definition of critically reflective teaching: "critically reflective teaching happens when we build into our practice the habit of constantly trying to identify, and check, the assumptions that inform our actions as teachers" (pp. 4-5). For Larrivee (2000, p. 294) being a critically reflective teacher involves bringing together a process of critical inquiry and self-reflection:

- **"Critical inquiry** involves the conscious consideration of the moral and ethical implications and consequences of classroom practices on students."
- **"Self-reflection** goes beyond critical inquiry by adding to conscious consideration the dimension of deep examination of personal values and beliefs, embodied in the assumptions teachers make and the expectations they have for students."

4.10 Being a critically reflective teacher involves taking time to reflect on, and think about, education, teaching, and students, and can surface some taken-for-granted assumptions and linked reactions in day-to-day classroom practices. Larrivee (2000, p. 301) warned that: "Self-created assumptions and limiting expectations can wreak havoc in the classroom by creating a mental picture of how things ought to be". This is problematic for the individual teacher, who may feel disillusioned by the apparent gap between what they expect and what their lived experiences are. It can also have negative consequences for students:

> beliefs about students' capacity and willingness to learn, assumptions about the behavior of students, especially those from different ethnic and social backgrounds, and expectations formulated on the basis of our own value system can potentially be sources for responding inappropriately to students. (Larrivee, 2000, p. 299).

4.11 Based on an extensive review of the literature plus her own research, Larrivee (2008) proposed four progressively deeper levels of reflection:

- **Pre-reflection**: "teachers react to students and classroom situations automatically, without conscious consideration of alternative responses." (p. 342)

- **Surface reflection**: "teachers' reflections focus on strategies and methods used to reach predetermined goals. Teachers are concerned with what works rather than with consideration of the value of goals as ends in themselves." (p. 342)
- **Pedagogical reflection**: "Teachers engaging in pedagogical reflection strive to understand the theoretical basis for classroom practice and to foster consistency between espoused theory (what they say they do and believe) and theory in use (what they actually do in the classroom)." (p. 343)
- **Critical reflection**: "teachers reflect on the moral and ethical implications and consequences of their classroom practices on students. Critical reflection involves examination of both personal and professional belief systems. […] They are concerned about issues of equity and social justice that arise in and outside the classroom and seek to connect their practice to democratic ideals." (p. 343). In the process of moving from pre-reflection and surface reflection to levels of pedagogical reflection and critical reflection, "Teachers move from initially asking 'Am I doing it right?' to eventually asking 'Is this the right thing to do?'" (p. 344).

4.12 To engage in deep reflection, Brookfield (2017) proposed four lenses for reflection to support teachers (and leaders) uncover sometimes hidden assumptions:

- **Lens of students' eyes:** This involves collecting and reflecting on evidence about students' perceptions of their classroom experiences and data about student learning. Student feedback can be a powerful stimulus for reflection, but it also requires careful and transparent explanation about how the feedback will be considered and used in a process that is safe for students to express themselves, for example in confidential surveys or other forms of data collection.
- **Lens of colleagues' perceptions:** Listening to, reflecting on, and learning from colleagues' perceptions of teachers' practice can be helpful, for example through teaching observations, team teaching, collaborative inquiry, mentoring, peer coaching, critical conversations, and identifying a critical friend.
- **Lens of personal experiences:** As well as reflecting on professional practice as teachers, Brookfield (2017) encourages critically reflective teachers to reflect on their own previous experiences as learners in schools and what this may illuminate about current students' needs and experiences. Although not explicitly mentioned by Brookfield, reflecting as a learner about professional learning experiences is also vital. Strategies for personal and professional reflection can include journal writing, action research, keeping a reflective teaching portfolio, and/or reflecting on outlines of teaching strategies and other lesson planning resources (see Kuruvilla, 2017).
- **Lens of theory and research:** Learning from theoretical and research literature can also provide informative perspectives for reflecting on, and improving knowledge and practice, especially if the theory or research has specific connections to the teachers' current interests, needs, or struggles.

4.13 The development of critically reflective leadership has also been developed, both for people in formal leadership positions and for emerging or informal leaders (Brookfield, 2017; Reardon et al., 2019). In addition to the lenses for reflection proposed for critically reflective teachers, Brookfield (2017) identified a further two lenses to inform leaders' reflections:

- **Lens of the followers' eyes:** This involves safely providing opportunities for people who work with the leader to provide honest feedback, including opportunities for group feedback such as during team meetings or in facilitated debrief or feedback sessions. Formal mechanisms such as leadership surveys can also be used.
- **Lens of peers' perceptions:** This includes seeking out feedback from peers, including other educational leaders outside of your own organisation. Peer feedback could come from trusted leaders in other educational organisations, through professional networks, and through professional development and connections fostered by professional education and leadership organisations.

Reardon et al. (2019, p. 30) concluded that: "a critically reflective leader balances individual and organizational goals and modifies their behaviors to achieve the most important goals". It is important throughout that leaders model and demonstrate critically reflective leadership, including seeking out alternative perspectives in a way that is safe and respectful, being open to difficult feedback, building trusting relationships, being consistent in reflecting on feedback, ensuring coherence between their words and actions, and explicitly sharing and explaining the evidence and reasoning behind their decisions (Brookfield, 2017). Leaders' reflections should be open, transparent, and non-defensive when reflecting on experiences that did not go well or have the intended outcomes.

4.14 Therefore, learning how to effectively reflect and become a reflective practitioner is important not only in the initial training in education, but throughout an education workers' career and continuing professional learning and development. Based on a literature review, Mann and Walsh (2017) identified the following "good practices" to embed reflective practice following continuing professional development activities:

- Sustained opportunities for continuing reflection and communication beyond specific professional development events.
- Make sure professional learning and reflection are participant-centred by acknowledging and building on educators' existing knowledge, experiences, and opinions, while also supporting potential improvements in knowledge and practices.
- Establish a positive atmosphere to support educators' growth and development.
- Create interactive social experiences for collaborative learning, interactions, and discussions.
- Maintain congruence between what is said and what is done in professional learning to support reflective practitioners.

Furthermore, Korthagen (2017) suggested that reflection that is connected to teachers' values, beliefs, emotions, and experiences can contribute to more differentiated and personalised professional learning opportunities to improve teachers' practices.

4.15 Mann and Walsh (2017) drew on several examples of professional learning and development activities which they consider to be good practice. One example was an eight-week online continuing professional development project involving eight English language teachers from Chile and Easter Island learning about the use of technology in classroom teaching. The professional development cycle included learning relevant theories, practical activities, and reflections involving individual blogs and collaborative discussion forums. In this example, it was found that individual reflections were useful for planning before teaching, whereas group reflections were useful for discussion after teaching. They also found that once teachers had learned how to use online blogs and discussion forums and were comfortable using them as tools for reflection, they actively engaged in contributing and sharing. In another example, Mann and Walsh (2017) discuss teachers' use of a self-evaluation tool combined with video clips of their teaching practice to support their reflections and improvements in practice. Sharing and discussion of video clips through online portals can also help teachers co-learn and provide mutual professional support. Therefore, as well as individual reflection, Mann and Walsh (2017) proposed the importance of "dialogic reflection" whereby: "Dialogue allows meanings to be co-constructed, new understandings to emerge and professional learning to develop" (P. 189). They proposed that dialogue should be teacher-led, collaborative, and non-judgemental. Learning from peers at all career stages, for example new teachers learning from more experienced colleagues, can be beneficial for professional growth.

4.16 To support improvements for learners, teachers can engage in reflective inquiry processes to inform their practices. In a recent literature review investigating effective ways to facilitate collaborative Reflective Practice Inquiry (RPI), Brown et al. (2021) offered the following definition of RPI as:

> collaborative, dialogic process in which educators both consider and aim to address pressing educational issues or problems. Such a process involves the collective generation and testing of ideas linked to enhancing their own practice; with these ideas based on evidence in the form of literature and/or data and displaying internal attribution. (p. 9).

Brown et al. (2021) identified several strategies to facilitate RPI:

- a **focus on evidence and ideas** which focuses on understanding existing effective practices in the school and ideas about innovation.
- **access experience and external knowledge/theory** to deepen learning conversations as independent ideas are injected to stimulate reflection, challenge the status quo and extend thinking.
- the **use of protocols and tools** can more clearly frame learning conversations and help participants structure their dialogue and interrogate evidence or ideas.

- **facilitation** is needed to ensure that the learning conversation approach is systematic, rigorous, and discipled, that there is a productive balance of comfort and challenge, and that there is enough time to enable learning conversations.

Brown et al. (2021) also indicated that approaches to enable effective RPI need to attend to:

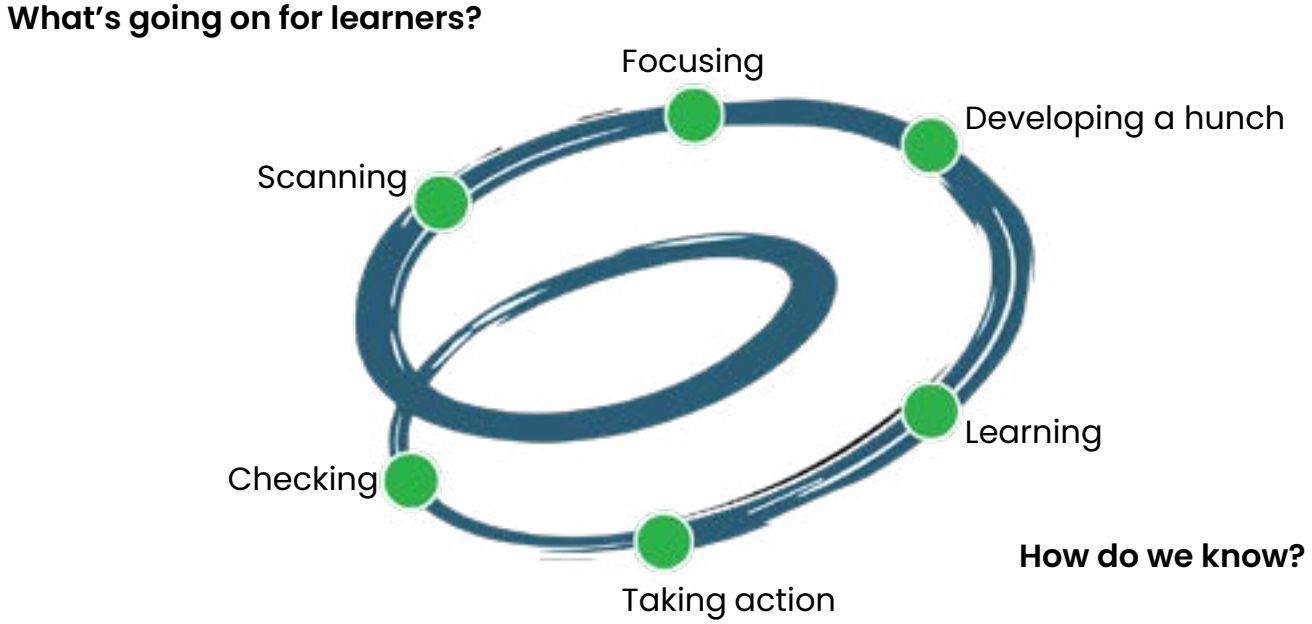
- **fostering interactive learning conversations** that have a high depth of inquiry, that involve the introduction of new ideas and that also involve practical collaboration in relation to the design and testing of new teaching practices;
- **experiencing cognitive dissonance** as part of these conversations to ensure existing beliefs and assumptions are challenged;
- **understanding the role of emotions to ensure there is motivation** amongst educators to want to be reflective on topics that matter to them.

According to their review, RPI is more likely to occur when the focus of the collaborative learning activity is linked to what matters to teachers, and less likely to occur when teachers are expected to harness reflective professional inquiry in the service of accountability. Brown et al. (2021) also identified that RPI is more likely to be effective when supported by a safe and positive environment with activities that encourage participants to take the learning back to their classroom. The support of leaders in valuing RPI and ensuring time and resources are available for effective RPI is also vital (Earl & Ussher, 2016).

4.17 An example of an approach to RPI is the "spirals of inquiry" process developed by Timperley, Kaser and Halbert (2014) (see Figure 4). The spirals of inquiry process includes:

- scanning (What's going on for the learners?)
- focusing (Where will concentrating our energies make the most difference?),
- developing a hunch (How are WE contributing to the situation?),
- new learning (How and where will we learn more about what to do?),
- taking action (What can we do differently to make enough of a difference?)
- checking (Have we made enough of a difference?).

**Figure 4: Spirals of Inquiry (Timperley, Kaser and Halbert, 2014, p. 5)**




4.18 In summary, reflective practice is considered to be an integral part of an educators' professional identity, development, and work from pre-service training through to continuing professional learning and leadership development. There are a plethora of models and approaches to reflective practice in the education sector. A common theme is the need to focus on what matters to the participant, for example students' needs and teachers' work, and to engage in a process of inquiry to examine taken-for-granted assumptions, to gather evidence, and to be open to genuine reflection on experiences and outcomes, including not only practical considerations but emotional responses. The context in which such reflection takes place matters, there is a need for leaders to value reflective practice and to establish a safe, supportive culture for deep reflection that may involve questioning and challenging previous assumptions and practices. Recent research proposes the importance of critically reflective teachers and leaders. Collaborative reflective practice inquiry is also important, particularly for reflecting on classroom practices and students' learning. The availability and use of time, resources, frameworks, and tools to guide and facilitate reflective practice is necessary.

# 5. What Impact Can Reflective Practice Have?

Approaches to reflective practice are widespread across many workplaces, sectors, and settings, as well as for individuals. In this section, we consider the evidence about what impact the use of reflective practice can have. We begin by reviewing research from outside of the education sector to consider wider lessons concerning reflective practice. We then turn specifically to examine evidence of impact from use of reflective practice in the education sector (broadly defined from early childhood to post-school education and lifelong learning).

## 5.1. Findings from Outside the Education Sector

5.1.1 Research evidence indicates that the use of reflective practice by leaders can have a positive impact for their leadership behaviours and effectiveness. Based on a study which asked 442 executives to reflect on experiences that were most beneficial for their professional development and improved their leadership, Bailey and Rehman (2022) argued that practicing a habit of reflection differentiates excellent leaders from average or low performing leaders. Their analyses of the responses from the 442 executives found the reflections based on the following experiences were most valuable:

> Surprise: "Many things surprise us, but in our study, most leaders were moved by moments that greatly derailed their expectations… When we are mistaken, we are surprised — and mistakes, lapses in judgements, and wrongful assumptions are worth our reflection."
>
> Failure: "While surprise can be kept internal, many participants associated failure with making a mistake visible to the masses… Mistakes allow us to learn by "negative example" otherwise known as "errorful learning." Much has been written about the value of failure as a learning experience because it's temporary. Naturally, we can't learn if we don't take the time to stop and intentionally reflect."
>
> Frustration: "Moments when our leaders felt frustration became growth opportunities upon reflection. That is, opportunities for improvement, change, innovation, and even to develop other soft skills like communication, problem-solving, and patience…We're frustrated when our goals are thwarted and we're not able to get what we want, but pushing through that frustration and finding other ways to cope and move forward results in our growth." (Bailey & Rehman, 2022).

5.1.2 Based on the above findings, Bailey and Rehman (2022) recommended that leaders develop a weekly practice of reflection: "Like a muscle, your mind needs reflection to reenergize and grow stronger." They suggested writing reflections in a journal on moments of surprise, failure, or frustration with a focus on the why behind the emotions revealed reflecting on these experiences. They also recommended setting aside time each week to review the journal and to potentially add further reflections on what could be improved in the future. As Bailey and Rehman (2022) commented: "know you can't get better until you know what to get better at."

5.1.3 In contrast to Bailey and Rehman's focus on surprises, failures, and frustrations, Lanaj, Evez and Foulk (2019) recruited 65 leaders from an executive MBA programme to participate in a study of the impact of positive leader self-reflection activities. They were interested in how positive self-reflection could affect leaders' energy and work. Over three work weeks, the leaders were sent a survey each morning, afternoon, and night with reflection questions plus measures of depletion, positive affect, self-esteem, work engagement, clout, and prosocial impact. Each leader spent half the study in the treatment group, and the other half in the control group to gauge the differences for each participant. The treatment group were asked to reflect on and write about:

- "three things you like about yourself (they can be anything) that make you a good leader,"
- "three valuable skills that you have that make you a good leader,"
- "three useful traits that you possess that make you a good leader,"
- "three personal achievements that you are proud of that make you a good leader,"
- "three things that you are good at (they can be anything) that make you a good leader."

The control group were asked to consider and write about:

- "three noticeable objects in your office,"
- "three noticeable landmarks that you pass on your way to work,"
- "three noticeable objects in your kitchen,"
- "three noticeable features of your car,"
- "three noticeable items in your house."

The findings were when leaders were participating in the positive leader self-reflection questions (treatment group) they experienced less depletion of energy and more work engagement, compared to when they were in the control group. This increased work engagement and improved the leaders' clout and prosocial engagement, which benefited their influence at work. Reducing depletion, and therefore increasing energy, is also imperative for time and resource stretched leaders who need as much energy as possible in their daily lives.

5.1.4 While positive self-reflection can be impactful, there are dangers in only using reflection for affirmation. As previously discussed, from its origins to present day, reflective practice includes critiquing, questioning, and challenging existing structures, knowledge, decisions, and actions. It is a critical and reflexive process to question and potentially change and challenge previous views, habits, and routines, which can include difficult examination of mistakes, failures, and frustrations (Bailey and Rehman, 2022) as well as successes (Ellis & Davidi, 2005). Reflective practitioners engage in learning from their experiences in many forms.

5.1.5 When done deeply and authentically, people can benefit professionally and personally from reflection. For example, Carmichael et al. (2022) asked seven clinical psychologists who valued reflection and considered themselves to be reflective to record their reflections in a diary and discuss their use of reflective practice in an interview. Reflective practice that involved questioning to make sense of their thoughts and feelings and to help participants discover new meanings and different perspectives, examining their assumptions to consider other perspectives, and uncovering existing biases and new possibilities assisted in supporting their clinical work and professional judgement. The clinical psychologists identified that by understanding themselves better they were able to focus more on their clients' needs, to manage their own needs, to learn to be comfortable with uncertainty, to pause and think through their work, and to improve their practice. This, in turn, resulted in the clinical psychologists feeling more confident and competent in their work.

5.1.6 Ellis and Davidi (2005) conducted research on the use of "after-event review (AER)" and the relative advantages of reflecting on successful and failed events contrasted with reflecting on failures only. Through a quasi-experimental exercise with the military, commanding officers were trained in facilitation workshops to guide soldiers in a process of reflecting on previous events. Soldiers were encouraged to reflect on and analyse their own behaviours and generate self-explanations for their actions. This exercise was combined with data verification through conversations with colleagues to identify different perceptions and optimise learning, and the facilitators' debriefing including feedback on performance and outcomes achieved. Ninety-eight (98) soldiers were divided into two companies – one company engaged in "failure-and-success-focused-after-event" (FSAER) facilitated reflection; the other company only engaged in reflecting on failure, "failure-focused-after-event" (FAER). The findings indicated that focusing on successful events elicited more systematic thinking and, with increasing practice of this technique, participants developed more complex understandings, including connecting to prior experience and to task planning. The group focusing on success and failure, instead of failure only, demonstrated more sustained and systematic cognitive engagement in their reflections resulting in improvements in performance. Therefore, facilitated reflection opportunities involving guided self-explanation, discussion of evidence and experiences with colleagues, and opportunities for debriefing feedback on experiences of both success and failure can positively impact learning and performance.

5.1.7 The development of individual or group reflection with external feedback, for example from a leader or facilitator, is identified as potentially powerful in the research literature. In a study by Anseel et al. (2009), 640 employees participated in a work simulation task in one of the following four scenarios:

- receive reflection instructions combined with feedback.
- receive feedback without reflection instruction.
- receive reflection instructions without feedback.
- receive neither reflection instructions nor feedback.

The first scenario of reflection combined with feedback was the most impactful for improving task performance. Possible explanations suggested are that quality reflection can inform more impactful feedback and feedback can help guide the focus for reflection establishing a virtuous cycle of learning and improvement. It was noted, however, that some people are more open and oriented towards learning through reflection and the deep cognitive, and sometimes emotional, work required for high quality reflection that can change mental models and lead to improvements.

5.1.8 While reflecting on performance can be impactful, the addition of learning goals can further benefit improving knowledge and outcomes. Yang et al. (2018) conducted a study involving 140 undergraduate students participating in a complex business simulation. The idea to be investigated was that while performance goals can increase motivation to achieve the identified performance, learning goals can motivate learning about tasks and processes required to achieve improved performance. The students were randomly assigned into one of the following experiences:

a. easier learning goals without a coached feedback reflection intervention,
b. easier learning goals with coached feedback reflection intervention,
c. more challenging learning goals without this intervention, or
d. more challenging learning goals with this intervention.

The findings concluded that both the use of learning goals and coached feedback reflection are powerful for enhancing learning. The use of learning goals shifted participants' focus from the desired end performance to a more complex reflection on the processes involved in achieving the performance outcome. This learning is particularly beneficial for informing decisions and actions from the outset of the task to be performed. The addition of coached feedback reflection interventions assisted in making learning from reflection, feedback, and prior experiences more effective. Through these processes, learning shifted from an automatic response to a more analytical investigation for deeper learning.

5.1.9 Engaging in reflection that can effectively contribute to new learning and improving performance requires an openness to genuinely exploring, learning, unlearning, and relearning from previous experiences, assumptions, and mental models of routine expectations and explanations. This is complex cognitive work that can also be emotionally challenging. One of the founders of the theories and concepts of reflective practice, Chris Agryis (2002), conducted research with 34 Chief Executive Officers (CEOs) who were attending a leadership conference. The CEOs read the story of a fictional person, Andy, who had failed to become a CEO. With the goal of raising the CEOs' awareness of their effectiveness in helping CEOs, they were asked to discuss Andy's failure with him (role played by a member of the research team) during the conference, consider what should have occurred, what the skills of a CEO are. and provide their advice to Andy. Rather than resulting in a positive, constructive reflection experience, when Andy told the CEOs their advice was not helpful, they became defensive and blamed Andy for his situation and failure! Theorizing these findings, Agryis proposed that these CEOs were operating within the theory-in-use model 1 where participants needed to be in control, to win, to suppress negative feelings, and to act rationally. The challenge is such behaviours result in defensive routines and can contribute to "skilled incompetence" to cover up issues and challenges.

By contrast, Agryis proposed an alternative theory-in-use model 2 which involves making premises explicit to discuss and test assumptions, being willing to reflect on and analyze challenges and difficulties and minimizing counterproductive routines to value and embed genuine learning. This second model prioritises the use of reflective practice. Therefore, not all leaders are genuinely reflective practitioners and becoming one involves a process of openness to learning how to reflect, how to learn from reflection, and how to improve future decisions and actions from those reflections and learning.

5.1.10 While Lanaj et al. (2019) found that leaders' positive self-reflection benefits leaders' energy and work, which can benefit their staff; they did not find that leaders' positive self-reflection directly resulted in employee's own positive energy. Therefore, it is important to consider how leaders' self-reflection can also benefit their team. Ong et al. (2022) sought to investigate the link between individual work reflection and leadership outcomes, including leadership behaviour and effectiveness. They proposed two dimensions of individual work reflection linked to the task being undertaken:

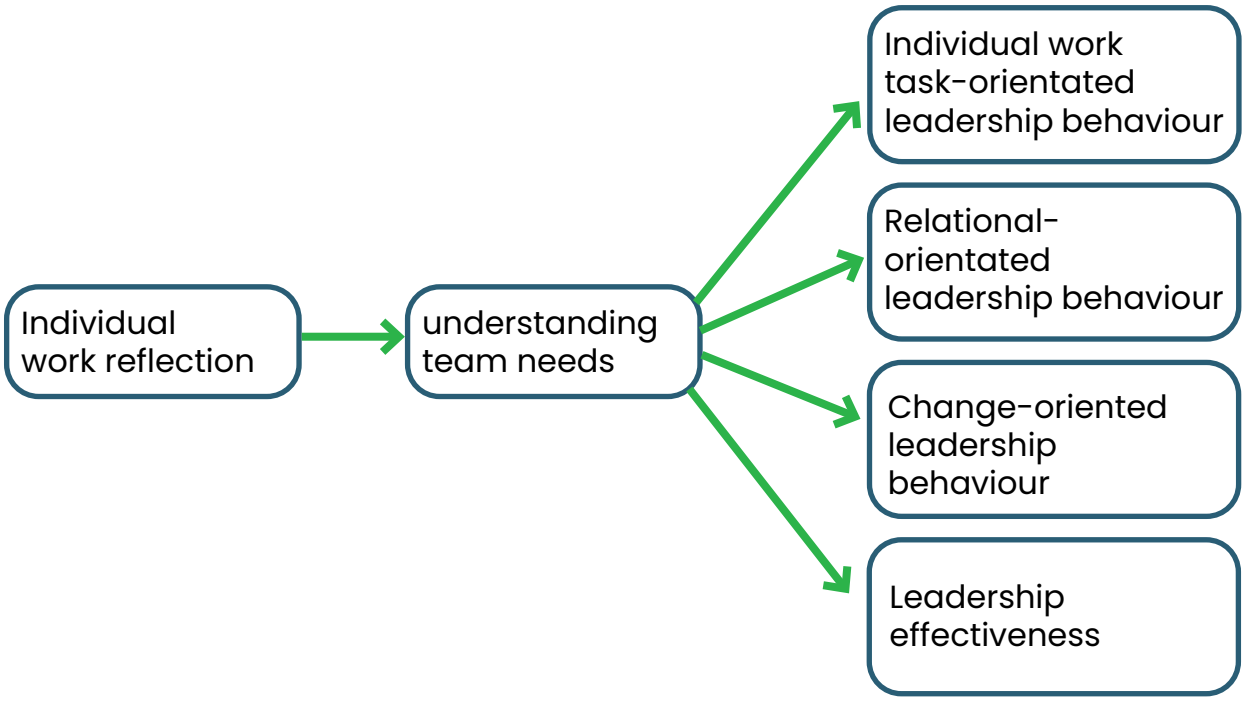
- **Goals-focused reflection,** whereby individuals examine the objectives adopted for their work and their progress toward those objectives.
- **Methods-focused reflection**, whereby they consider the appropriateness of the strategies or methods used to achieve their goals.

In addition, they proposed two social dimensions of work reflection:

- **In relationships-focused reflection**, individuals reflect on how they are interacting with other people at work.
- **In self-focused reflection**, they reflect on themselves, how they function as individuals, and how their personal characteristics influence their work. (Ong et al., 2022, p. 21)

For Ong et al. (2022), individual work reflection can play an important role in understanding your team and how best you can contribute to that team and meet their needs. Figure 5 provides the theoretical model underpinning this research.

**Figure 5: Theoretical model – Individual work reflection and leadership outcomes (Ong et al., 2022, p.24)**




5.1.11 The findings from the Ong et al.'s (2022) study included the benefit of reflecting on different work issues, for example goals, methods, relationships, and own self, for leading and working in teams. They concluded that people who engaged in individual work reflection were more likely to engage in task-, relational- and change-oriented leadership behaviours in their work in and with teams. They were also more likely to be effective leaders. Because individual work reflection can be undertaken by anyone, it can play an important role in growing informal and formal leaders, as well as emerging and future leaders. Ong et al. (2022) argued that anyone can use individual work reflection to develop their leadership behaviours and effectiveness.

5.1.12 There is potential, therefore, in developing reflective practice for people at all career stages. In a large study using experimental studies involving a total of 4,340 participants across a range of contexts, countries and populations, Di Stefano et al. (2023) sought to investigate whether reflecting on previous experience is more beneficial than accumulating additional experience (without reflecting on that experience). In essence, is more reflection advantageous compared to more practical experience? The answer to the research question: "Is there evidence of the performance benefits of reflection vs practice in the wild?" was that participants who engaged in reflection on practice substantially outperformed those who only gained additional practice experience. This is an important finding to consider for the development of people from their early careers and experiences onwards. Practice plus reflection is most beneficial for improving performance.

5.1.13 Having established a link between reflection and performance, Di Stefano et al. (2023) sought to find out whether different types of reflection mattered more. A follow up study of 290 adults compared participants who took time to simply think about their experience with a task (reflection as articulation) to those who spent the same amount of time thinking first but then also writing

down their key reflections and lessons learned (reflection as codification). They found that articulation – thinking about experiences – had a positive effect on performance. However, perhaps surprisingly, the effect of codification – written reflections distilling key takeaways – was not as straightforward. Participants needed support to fully understand the reflection activity before they could engage effectively and achieve benefits for their improved performance. This points to the fact that while some people already have a habit of reflection, like all professional practice and learning, become an effective reflective practitioner requires support and scaffolding. In a linked study, De Segano et al. (2023) also found that the content of reflection mattered – participants found it easier to engage in reflection activities about similar types of tasks over time, compared to novel tasks. However, the participants who had learned to become reflective practitioners, compared to those who were accumulating practice but not reflecting on that practice, were more able to reflect on a range of different types of tasks, issues, and ideas. Finally, Di Stefano et al. (2023) sought to investigate whether reflections on experience was affected by how much the participant had engaged in the experience. They found that participants who had some experience of the task to be reflected on benefited most. Therefore, the authors provide the important finding that reflection plus experience matters more than simply accumulating more experience. However, effective reflection involves understanding the purpose and nature of the reflection, building capacity to become and be a reflective practitioner, and drawing on experience.

5.1.14 Engaging in reflection can also benefit people's wellbeing. In the example of the clinical psychologist (described above), in addition to benefits for their work, they also identified that reflection supported their self-care and resilience (Carmichael et al., 2022). Similarly, in a recent study of 13 social workers who worked for governments, non-government organizations (NGOs), and as consultants located in the Middle East, Caribbean, Oceania, East Asia, Europe, and Africa, participants discussed initiating their own reflective practices including dialogue with colleagues, group debriefs, and self-reflection through journaling (Strumm, 2023). The social workers reported using reflection to think about difficult situations and process their emotions to move forward with their practice. They explained using reflective practice for stress reduction and to support their mental health and wellbeing. Therefore, while some research on reflective practice focuses on task performance, these studies with social workers and psychologists indicate the importance of reflection for personal wellbeing in addition to improved performance.

5.1.15 Looking across the research reviewed, the following positive impacts of reflective practice are identified:

- Supporting leaders' excellence and development.
- Improving leadership behaviours and leadership effectiveness.
- Contributing to leaders' energy and work engagement.
- Improving peoples' capacity to lead, work, and contribute to teams.
- Enhancing professional learning from reflecting on experiences and critical thinking about assumptions, actions, emotions, and future actions for improvement.

- Accelerating learning from experience, contrasted with additional practice but no reflection on that practice.
- Improving practice, including tasks, processes, and performance outcomes.
- Supporting wellbeing through processing experiences and dealing with emotions.

5.1.16 However, reflective practice is not a habit that all people have or can develop easily. Therefore, the conditions supporting effective reflective practice to have a positive impact include:

- A person's openness to genuine and deep reflection to learn, unlearn, and relearn from experiences and to challenge past assumptions and routines.
- A combination of learning goals considering tasks and processes to be reflected on, learned from, and improved as well as the performance outcomes to be achieved.
- Carefully considering the focus for the reflections, for example experiences of success and failure, surprise, frustration, and positive experiences.
- Undertaking structured individual reflection, for example journalling and setting aside time each week to review and think about reflections from that week.
- Opportunities for group reflection, for example, talking to colleagues, data verification by discussing with colleagues their interpretation of experiences contrasted with your interpretation, and engaging in debriefs.
- The use of facilitated reflections, such as debriefs, by leaders which can be impactful for individual and team learning and performance.
- Scaffolding and supports so that individuals understand the purpose of reflection and approaches to being a reflective practitioner, for example guidance on how to engage in reflective activities.
- Opportunities for external feedback on individual (or group) reflections to further learning and improvement.

5.1.17 The above findings have resonance with the use of reflective practice in the education sector, including by leaders and their leadership of their staff's engagement in reflection as part of their professional learning. We turn now to examine findings concerning reflection and reflective practice for the education workforce specifically.

## 5.2 Findings from the education sector

5.2.1 Consistent with the wider findings concerning the use and impact of reflective practice, becoming and being a reflective practitioner can be beneficial for education workers, both for their own development and practices and for their students' learning experiences and outcomes.

5.2.2 Ideally, learning how to reflect deeply and effectively should be part of all education workers' development from their initial training and throughout their career. Bjuland and Helgevold (2018) researched the Teachers as Students (TasS) project to investigate student teachers' learning and practice working with a mentor teacher during their fieldwork practical experiences. The student teachers were divided into two groups – a control group and an intervention group which learned the use of reflection as part of Lesson Study processes. The Lesson Study teachers engaged in a cycle of phases of practice and reflection including goal setting, curriculum analysis, lesson planning, teaching a lesson while being observed, and debriefing and reflecting in an open and collaborative setting. Teachers collaboratively investigated classroom practices, often with the support of a more knowledgeable other person such as a mentor teacher. Mentoring conversations supported the development of "interthinking" to reflect, interact, think and co-construct knowledge. The use of scaffolding tools to support the mentee's reflection was particularly useful. The Lesson Study intervention group teachers were identified as using dialogic moves, as described by Warwick et al. (2016, p.567), of:

[D1] Requesting information, opinion, or clarification,

[D2] Making positive and supportive contributions,

[D3] Expressing shared ideas and agreements,

[D4] Providing evidence or reasoning,

[D5] Challenging ideas or re-focusing talk.

Specifically, the use of challenging [DM5] and clarifying questions [DM1] were particularly impactful to support student teachers to focus on learning goals, make predictions about future activities related to pupils' learning, reflect on observations and use evidence, and make reflections on the student teachers' own questions. This example indicated the importance of mentoring and scaffolding to support deep reflection, plus the use of a structured lesson study process, to develop student teachers' knowledge and practice.

5.2.3 Attention to the supports for reflection are important, including knowledgeable experienced educators, such as mentors, and tools and resources to guide, facilitate, and record reflections, such as online tools. In a study of future teachers' reflection and learning, Moore-Russo and Wilsey (2014) researched the use of animations of algebra instruction to support future math teachers' knowledge and practices. Using the concept of "productive reflection", they describe such reflection as involving:

- "connectedness" to reflect on a current activity or observation in light of other perspectives and experiences, including personal experiences, practical knowledge, educational theory, and professional development,
- "integration" of aspects of teaching, including learners and learning, instruction, assessment, and subject matter knowledge.

Moore-Russo and Wilsey (2014) proposed that productive reflection bringing together connectedness to other perspectives and integration with teaching should:

a. consider the act of teaching, the teaching and learning environment, students' thinking and learning, the nature of the subject, expectations of teachers, or some aspect related to the work of teaching
b. be comparative by acknowledging and building from past experiences, others' perspectives, educational theories, or educational research
c. recognize the complex nature of teaching by emphasizing and integrating multiple aspects of teaching. (p.78)

5.2.4 In Moore-Russo and Wilsey's (2014) study, pre-service teachers were assigned to view animations of algebra instruction as part of their mathematics teaching course. Each pre-service teacher was required to post online entries reflecting on the animations and engage in collaborative discussion and analyses. Through scaffolding of learning integrated into the design of the animations, the pre-service teachers were able to consider the complexity of teaching and integrate this into their work as teachers. However, because of the nature of online posting, there was a tendency for people to submit their individual viewpoint and affirmations of other people's posts. Nevertheless, through experience, the student teachers moved to engaging in more collaborative reflections by bouncing ideas off each other and discussing why they agreed or disagreed. Therefore, both productive reflections (with connectedness to considering perspectives and integration with feature of teaching) plus collaborative dialogue (in this case online) were important.

5.2.5 By contrast, a study of pre-service teachers training in special educational needs involved tutoring and submission of weekly reflection activities during their field placement (Peltier et al., 2020). However, while the pre-service teachers had to submit reflections, they did not receive explicit mentoring and scaffolding on how to engage in deep reflection. Of concern, the pre-service teachers' reflective ability in Peltier et al.'s study (2020) decreased over time. This raises the issue of needing support specifically for effective reflection over time.

5.2.6 Learning to become and be reflective is important not only for education workers' initial training and early career development, it is also important as part of ongoing professional practice including leadership development. González-Sullivan and Wiessner (2010) researched the development of reflective leadership as a key component of the National Community College Hispanic Council Hispanic Leadership Fellow Program, designed to support people move into executive leadership roles in colleges. The program includes a series of reflection catalysts through guided activities during professional development events. In addition, the researchers created New Learning reports to present participants' reflections back to the group to stimulate each person to consider what they had learned and engage in consideration of what others had learned. This supported further reflection on the content of learning and the processes used to learn. Through these facilitated reflection activities and processes, participants' reflections deepened over the course of the program with improvements evident between the reflections in June compared to September. The participants demonstrated involvement and improvement in their use of questioning and critical inquiry, including self-examination and searching for new answers to situations. These aspiring leaders developed habits of mindfulness to focus on knowing oneself, their surroundings, and their relationships. They also became more aware of their own vulnerability and struggles and finding ways to address these.

5.2.7 Based on the evidence from the Hispanic Leadership Fellow Program, González-Sullivan and Wiessner (2010) offered the following recommendations for individuals and institutions seeking to develop reflective leadership.

Recommendations for individuals:

- Make and carry out a firm commitment to regular reflection.
- Understand your reflective style and find reflective tools that dovetail with that style.
- Intentionally and regularly set aside time without interruption in a setting that relaxes and fosters deep, free thought.
- Use visualization techniques to explore ideas and possibilities; imagine a photograph of "my day" and examine the details of the picture.
- Tell a story; unexpected details often surface as the story unfolds and these can lead to further reflection and understanding.
- Look away or look elsewhere; rather than focusing directly on an object or incident, allow thoughts to drift or wander, with the possibility that unanticipated ideas and connections will emerge.
- Try to capture random images and thoughts during regular activities that suggest areas for reflection. (p.48).

Recommendations for institutions:

- Take time for intentional reflection in meetings; allow silent time for attendees to think, make associations, collect impressions.
- Use metaphors that encourage distinctive thinking about a situation, event, or outlook.
- Encourage unexpected connections, divergent thinking, expressions of values.
- Avoid judgments of ideas that emerge from reflection; incorporate the ideas as ways to extend and broaden thinking in groups.
- Use debriefings as a form of reflection.
- Use such reflective activities judiciously; don't overdo. (p.48).

González-Sullivan and Wiessner (2010) also offer the following suggestions for leadership programme providers, including graduate programmes:

- Build reflection into the program intentionally in nonintrusive ways.
- Use a variety of techniques to stimulate reflection.
- Encourage narratives, sharing of experiences and values, and self-questioning to explore behaviors and decisions.
- Encourage knowledge co-construction, asking participants/students to consider each other's ideas and build on them; take note of new knowledge that emerges from this spiraling process.
- Emphasize the importance of reflection to effective performance and authenticity and the need to create a lifelong disposition toward reflection. (p.49)

5.2.8 In education, the development of reflective leadership is important not only for the formal leaders themselves, but also for the people they are leading. In research on "principal instructional leadership practice and its effect on teachers' reflective practices" by Amzat (2017), findings from a survey of 250 teachers identified that principals' leadership mattered for teachers' engagement in reflective practice. Amzat (2017) found that principals explaining and sharing school goals and opportunities for teacher co-construction of and feedback on school goals could encourage teachers to reflect on their contributions and to further support the school's progress. In this study, a key focus was developing awareness of inclusion, including consideration of students' backgrounds and interest, a concern for school climate, and issues of social justice within and beyond classrooms. The principals' involvement with teachers in evaluating and discussing student progress was useful in encouraging reflective practice. Relatedly, principals' feedback to teachers could support reflective practice. Consistent with studies discussed above about the need to facilitate and scaffold reflective practice, school leaders providing resources, opportunities for observation, and ideas for improvement strategies, in collaboration with teachers, can support effective reflective practice and linked learning.

5.2.9 The use of coaches to support leadership development, teacher development, and school improvement can also be impactful. Avilés (2020) discussed the use of reflective practice as part of the Intercultural Development Research Association's (IDRA) Reenergizing Leadership to Achieve Greater Student Success (RLSS) project, which supported teachers to become instructional and transformational school leaders, and IRDA's intensive professional development support for low-performing schools. In the case of lower-performing schools, IDRA coaches had an initial meeting with the school leadership team to identify school needs and individual needs for professional growth. This was followed by the coaches conducting school visits and observations to identify teachers' needs and student engagement. Using this evidence, coaches and school leaders in collaboration devised improvement plans. The school leaders and teachers were encouraged to develop reflective practice through conversations to identify causes of issues, analyze issues, examine why some practices did not work, and try out new ideas and practice to increase student achievement. The principals reported benefiting from sharing ideas, expressing concerns, and drawing on coaches or mentors to offer alternative perspectives and strategies. Of note, standardized student assessment results (state assessments in USA) from the schools involved showed substantial improvements.

5.2.10 The use of professional reflection and effective reflective practice can also benefit team development, including distributed team leadership. As part of the Research Connections: Practitioner Research Engagement Network for Early Childhood Educators' (PRENECE) project, teams of early childhood educators from four centres, supported by University Research Mentors (URM), engaged in a two-year cycle of action research to investigate how team-based leadership critical reflection and mentoring could enable quality improvement (Duffy-Fagan et al., 2021). Each early childhood centre team selected their own action research topic and approach linked to local needs and interests. The early childhood educators were supported in a process of critical reflection and becoming practitioner researchers through workshops and URM visits to support conducting research, analyzing data, and planning and implementing changes. Key components of this project were: the use of critical reflection to stimulate self-examination and challenge biases; team-based leadership which was conceived as everyone in the team enacting leadership rather than it being a positional title; and mentoring which was to be provided from within the team through reciprocal, collaborative, reflective processes. During the initial workshop, the teams identified the need to develop a "Critical Mentor Role" and the co-development of a Critical Reflection Framework. As reported by Duffy-Fagan et al. (2021), the findings from these critical reflection action research teams and mentoring included that the team experienced increased confidence in communicating, integrated team-based leadership, actively recognized and supported actors of leadership and encouraged each other to lead within the team. This experience changed participants' views of leadership from a position limited to a few to a form of distributed team-leadership which included mentoring and encouraging team leadership by all involved. The use of a Critical Reflection Framework was helpful in moving conversations away from surface agreements or disagreements to a deeper reflection on the perspectives held by team members. Team members indicated this helped them to think more deeply and calmly and to shift old habits of jumping to conclusions. The findings from this study led to the development of a Critical Reflection CARE model to support team leadership (see Figure 6).

Therefore, through a combination of support for action research, development of mentoring, linkages to university research mentors, and a framework to guide reflection, positive impacts were experienced for individuals and for the team.

**Figure 6: Critical Reflection CARE Model (Source: Duffy-Fagan et al., 2021, p. 16**

| | |
|---|---|
| **CR** | **Critical reflection** involves applying thought that raises doubt, and challenges mental thinking. It is inquiry that searches for alternative perspectives, questions the status quo or information as accepted 'fact' and hunts for bias, assertion or dogma that has no basis in research or established knowledge. It allows self-examination for bias or unethical actions.<br><br>**Critical mentoring** involves critical reflection skills that encourage mentees to challenge biases and perspective and to seek alternative perspectives. A critical mentor acts as an unbiased critically reflective friend who encourages self-examination on behalf of the mentee. |
| **C** | **Confidence in communicating and changes within critical conversation** – demonstrates a professional way of interacting with colleagues and families. |
| **A** | **Assimilating leadership in a new way to support team-based leadership** – leadership becomes embedded and embodied. A way of being. |
| **R** | **Recognising acts of leadership** involves the ability to see, appreciate and acknowledge the leadership of others. |
| **E** | **Encouraging all team members to lead** acknowledges the importance of supporting and encouraging colleagues to enact leadership and for this to occur at all levels within the team. |

5.2.11 The use of frameworks and tools, including online, has also proven useful in improving processes and practices in post-secondary education. Burgoyne and Chuppa-Cornell (2018) report findings from a two-year project involving 15 library faculty in a community college. Faculty were asked to complete a reflection – accessible via email or a shared online drive – each week they taught a Critical Research Instruction class. The reflection tool included descriptive information such as course code, active learning techniques, and learning outcome(s) identified, plus reflective prompts which changed over time to allow reflection over the semester. In addition, faculty participated in thematic workshops that supported them to develop reflective writing practices and professional development to improve their pedagogical practices. The findings indicated that the more faculty reflected over the two years with evolving prompts, the more their proficiency in effective reflection improved. Over the two years, faculty demonstrated positive professional growth in the depth and focus of their reflective practices. Improvements in lesson planning, use of active learning techniques, and generation of more complex student evidence were identified. Therefore, through a combination of professional development and reflective writing (via online prompts), faculty improved their reflective practice and their pedagogical practices.

5.2.12 While there are considerable benefits of effective reflection, caution has been sounded about attempts to impose reflective practice in a surface manner in a context of performativity in education. Benade (2015) discusses the origins of reflective practice and proposes that reflection should occur before, during, and after practice and experiences, be intellectually unsettling as critical inquiry, involve an ethical dimension, and focus on social justice outcomes through changed practice. By contrast, in research with teams from three schools (principals and teams with varying experiences), he found that reflective activity could be undertaken narrowly, considered a form of accountability, and experience resistance from teachers who saw it is an add on rather than integral to their professional lives. In this context, the deep and, at times, unsettling reflective practice envisaged by some of the founders of reflective practice is unlikely to be fully realised. Nevertheless, Benade (2015) did note the power of examples of reflection that involved deep connections to and reevaluation of school leaders' and teachers' values, beliefs, and assumptions.

5.2.13 Similarly, Cheung and Wong (2017) interviewed teachers about their life experiences of change and use of reflection. They found that teachers who engaged in lower levels of reflection were less motivated to explore new teaching practices (and vice versa). By contrast, engaging in improving practices and advancing social justice required deeper levels of reflection and willingness to learn and try a range of new teaching practices. Cheung and Wong (2017) recommended that professional development should support teachers to develop deep reflections to think about, revise, and redesign their pedagogical practices. Reflection embedded in teachers' lived experiences in their daily classrooms was important. School leaders and school-based supports for teacher reflection are necessary, including opportunities for collaborative reflection, peer reflection, mentoring, and time and space to engage in deep reflection linked to professional development and school improvement.

5.2.14 Winchester and Winchester (2014) also researched the difference between, and impacts of, various levels of reflection. For their study, the authors drew on Larrivee's (2008) three levels of reflection: an initial (lower) level of reflection focused on specific teaching experiences as isolated events, a more advanced level of reflection exploring the theory and rationale (or the why) underpinning current practices; and highest order reflection which involved teachers engaging in larger questions about the purpose of education and the ethical, social, and political consequences of their teaching. Winchester and Winchester (2014) noted that previous studies of university faculty indicated that surface level reflection results in reactive behaviour whereas becoming genuine reflective practitioners requires deeper reflection. In their own study of university faculty reflecting on formative student evaluations available through a virtual learning environment during their courses, Winchester and Winchester (2014) found reflection (even at low levels) could bring about positive changes in the faculty members' practices, particularly if focused on their teaching, and result in improved student evaluations. The availability of a virtual learning environment with student feedback and other data proved useful in aiding faculty members' reflections and focusing their improved practices. Those faculty members who engaged in deeper levels of reflective practice achieved greater increases in their students' summative evaluation scores. Of note, Winchester and Winchester (2014) identified that all reflection can be helpful. Deeper reflection is more impactful than surface, low level reflection, but achieving the highest levels of reflection concerning fundamental purposes and values may not be feasible for most people without dedicated training and support for these techniques.

5.2.15 The use of classroom data and evidence can also lay the ground for effective reflection. For example, the use of student data to inform reflective practice in schools can be particularly helpful (Brookfield, 2017). In a large study using data from 6,107 students about their perceptions of their classroom learning environment and 459 teacher responses to reflecting on that data, Bell and Aldridge (2020) identified the power of using student feedback data for teachers' reflections. Of note, teachers who went beyond individual reflection, for example through a reflective journal, to design, conduct, and participate in a formal action research project, including reflection at different stages in the process and developing an action plan, demonstrated statistically significant larger gains in making changes in their practices based on the data and reflections.

5.2.16 Similarly, Vaughn et al. (2014), proposed that reflective practice involving action research can be particularly beneficial for rural educators who may not have access to a wide range of external professional learning opportunities. In their study, eight rural educators participating in a MEd degree in curriculum and instruction engaged in action research over a year. Through the process of collecting and analysing data, teachers developed as teacher researchers examining their practice and asking questions about their professional work and practices to meet their students' needs. By engaging in research and reflection, teachers transformed their views about their work and their local context. They reported increasing self-awareness, being more flexible and receptive to new ideas, and developing a thoughtful approach to problem-solving. Of note, teachers felt an increased sense of empowerment, which is vital for teachers' professional identities, work, and agency.

This also encouraged them to develop their potential as leaders in their schools and communities. Engaging in reflective practice, particularly processes of metacognitive reflection about teachers' beliefs about the nature of teaching, a critical review of their own performance, and interpretation of their behaviour, has an impact for self-efficacy (Moradkhani et al., 2017).

5.2.17 The use of data and evidence from teachers' own observations and experiences is also important. Godinez Martinez (2018) researched the experiences of five in-service English Language Teachers participating in a nine-week university programme who engaged in observations of classroom video recordings as a basis for reflection. Focus groups were first conducted to gain insights about the teachers' practices and their reasons for their teaching approach. The teachers then engaged in video recordings of their classroom practices. Collaborative discussion of these recordings included reflections on the teacher's previously articulated approaches to, and reasons for, teaching practices. Based on follow-up interviews with the participating teachers, it was revealed that the teachers appreciated that the more they engaged in reflective practice, the more they understood and could explain their practices, which in turn, increased their agency over their professional knowledge and practice. The use of videos and other forms of data collection assisted in deepening reflections, compared to individual recollections of previous experiences, which also benefited teachers' awareness of their teaching. This enriched the discussion, especially when part of a reflective community with space and support for sustained individual and collaborative reflection. When done in a supportive community for developmental purposes, classroom observations moved from being perceived as teacher assessment to a support for teacher awareness and self-improvement, including becoming self-aware of changes to be initiated by teachers themselves as opposed to external evaluation and imposition. Collaborative reflective practice supported by participating in a reflective community, in the workplace and/or in professional development opportunities, is important to deepen reflection and to counter concerns such as resistance to reflection that minimize engagement.

5.2.18 Teachers developing a strong Pedagogical Knowledge Base (PDK) is also important for supporting effective reflective practice (and vice versa). Estaji and Dezfoolian (2018) investigated this relationship in a study of English as a Foreign Language Teachers (EFL). They administered a survey of PKB previously developed by Davdand (2013), which included the following components:

a. knowledge of subject matter,
b. knowledge of learners,
c. knowledge of second language teaching,
d. knowledge of second language learning,
e. knowledge of assessment/testing,
f. knowledge of classroom management assessed,
g. knowledge of educational context,
h. knowledge of equity and diversity,
i. knowledge of (professional) self.

Estaji and Dezfoolian (2018) found a significant relationship between teachers' PKD and reflective practice, suggesting there is a reciprocal relationship between strong pedagogical knowledge and capacity for deep reflection. Of the above dimensions of PKB, knowledge of professional self, knowledge of learners, knowledge of assessment/testing, knowledge of second language teaching, and knowledge of second language learning sub-components of teachers' PKB were the best predictors of teachers' reflection. Teachers who recorded higher levels of PKB tended to be more reflective, have more extensive ideas about teaching practices, and be more aware of ethical and moral issues in teaching. Estaji and Dezfoolian (2018) recommended that reflective practice should be taught as an integral part of initial teacher education programmes. They also recommended supporting teachers with resources to facilitate reflection, such as portfolios, journals, narratives, teacher development groups, and video recordings of their classes to improve their reflective practices.

5.2.19 Engaging in deep reflection requires professional development, supportive conditions, and resources for individuals to become genuine reflective practitioners. Camburn and Han (2017) investigated the organizational conditions and professional experiences that were most beneficial for supporting teachers' reflection and learning. Using statistical analyses, they examined the relationships between, and impact of, the following constructs: teachers' engagement in reflective practice, teacher collaboration, work with instructional experts, professional development focused on teaching and learning, and professional development focused on school-wide matters. Of the constructs analysed, two were most impactful in combination with reflective practice: reflective practice and professional development focused on instruction, and reflective practice associated with teacher collaboration. Based on these findings, Camburn and Han (2017) recommended the importance of job-embedded learning experiences which enable teachers to engage in reflection and learning linked to their day-to-day work and professional learning experiences linked to classroom teaching needs. They also recommend opportunities for teachers' collaboration to engage in reflection and co-develop improved practices.

5.2.20 The importance of reflective practice, professional development experiences, and teacher collaboration was also identified in a previous study by Camburn (2010) involving 80 elementary urban schools in predominantly disadvantaged settings in the USA. These schools had implemented comprehensive school reform (CSR) programs which included teacher leadership positions and structures to support teacher collaboration for adoption of new instructional practices. Consistent with Camburn and Han's (2017) later study above, the teachers in these schools benefited from greater access to professional development, engagement in reflective practice, and collaborating with colleagues. Of note, the support structure and resources provided through the CSR program contributed to addressing barriers to reflective practice, such as time and opportunities for teacher collaboration.

5.2.21 In summary, reflective practice in the education sector can have a beneficial impact for individuals' development, team development, and leadership development. Personal and professional improvements include self-awareness, improved problem-solving capacity, self-efficacy, professional agency, and improved performance including teachers' pedagogical knowledge and practices and individual and distributed leadership practices. Effective reflective practice that contributes to school and classroom improvements can also result in enhanced student feedback or evaluations of their teaching and learning experiences, and improved student outcomes. However, to achieve effective reflective practices requires a range of conditions and supports, including leaders valuing and encouraging reflective practice and the availability of tools and resources to facilitate reflective practice. Facilitated professional learning on the purpose, processes, and use of reflective practice is needed to support deeper reflections and authentic engagement, contrasted with surface reflection in a context of performativity. Opportunities for collaborative reflective practice, including mentoring, coaching and teacher collaboration, are important. Finally, to contribute to improvements for students, reflective practice needs to include a focus on instruction and students' learning needs, including analysing student data.

## 5.3 Summary of Findings About Effective Reflective Practice

Based on our review of the research literature, we outline key features of effective reflective practice in Table 2. It is important that there is clarity of purpose and relevance of focus for effective reflection to occur. Attention to processes of effective reflective practice include engaging in depth and breadth of reflection, openness to active inquiry and use of evidence, and willingness to reflect on both successes and failures to uncover new challenges. Effective reflective practices require some structure and can benefit from facilitation, however it needs also to be flexible to individual needs and collaborative opportunities. Effective reflection also involves grappling with dissonance and listening to feedback. For reflection to lead to changes and improvements in practice requires attention to identifying needed changes and planning for improvements in future goals and actions. Finally, there are necessary conditions to support such reflective practice. The leadership of reflective practice includes leaders themselves being and modelling being a reflective practitioner and encouraging the people they work with to also be reflective practitioners. Leading reflective practice goes beyond encouragement, however, to also ensuring that the conditions for effective reflections are in place, including a safe, trusting culture, time for reflection, professional learning on and with reflective practice, and availability of tool and resources to facilitate effective reflection.

**Table 2: Features of Effective Reflective Practice**

| Features of Effective Reflective Practice | |
|---|---|
| **Purpose of reflective practice:** | |
| **Clarity of purpose** | Reflective practice can involve a range of purposes, it is important to be clear about the intended purpose(s) of each reflective activity undertaken. |
| **Relevance of focus** | Reflections are more effective when they focus on experiences and issues that matter and are relevant to the participant. |
| **Processes of reflective practice:** | |
| **Depth of reflection** | Sufficiently deep to include reflection on pedagogical issues as well as self-reflection to assess the practitioner's assumptions, beliefs, values, and emotions. |
| **Breadth of reflection** | Sufficiently broad to include critical consideration of the cultural, social, political, and institutional context. |
| **Active inquiry** | Involves an active process of inquiry reflecting on questions or prompts, reflecting on experiences, gathering, and analyzing evidence, and trying out changes in practice. |
| **Evidence-based** | Based on context-relevant data and evidence. |
| **Reflection on successes and failures** | Focuses on both successful and failed experiences to understand what is done well and what needs improvement. |

| Features of Effective Reflective Practice | |
|---|---|
| **Structured yet flexible** | Facilitated and structured to provide sufficient support but flexible enough to allow practitioners to adopt reflective practices that are most suited to their interests, needs, and context. |
| **Collaborative** | Engages facilitated formal and informal interactions and collaborative reflections. |
| **Includes dissonance** | Fosters cognitive dissonance to ensure underpinning values and beliefs that have become implicit assumptions and routine behaviours are identified and examined with potential changes to future actions. |
| **Provides feedback** | Includes feedback to uncover assumptions and address the subjectivity of one's perceptions, address the risk of confirmation bias, and to inform suggested future changes in practices. |
| **Informs improvements in practice:** | |
| **Identifies necessary changes** | Leads to new learning and potentially a change in assumptions, values, beliefs, knowledge, and practices. |
| **Informs plans for future practice** | Includes planning for the future based on past experiences and trying out new approaches to reach desired goals and lead to actions for improvement. |
| **Conditions to support effective reflective practice:** | |
| **Leadership** | Leaders engage in, encourage and value reflective practice. |
| **Safe culture** | Requires a safe environment in a trusting culture that values reflection and does not engage in negative judgement. |
| **Professional learning to be a reflective practitioner** | Developing a habit of reflection and becoming an effective reflective practitioner require focused development and professional learning supports. |

| Features of Effective Reflective Practice | |
|---|---|
| **Availability of tools and resources for reflection** | Frameworks, guides, tools, and resources (print, in person and online) to facilitate and record reflective practice are helpful. |
| **Time** | Reflective practice as a habit needs to be practiced frequently and requires dedicated time for deep reflection. |

## 6. Approaches to Reflective Practice in Wales

6.1 Reflective practice has been embedded in multiple national and more targeted initiatives over the past decade in Wales. We first review the national framework for reflective practice and impactful policies, before turning to selected initiatives.

6.2 Wales has a well-developed national framework for reflective practice. Within the 2015 New Deal for the Education Workforce initiative aimed at facilitating the implementation of the new curriculum, reflective practice was established as a core element of professional learning. Reflective practice is defined as a "process of thinking through professional issues, problems or dilemmas, which do not have an obvious solution" (Welsh Government, 2015, p. 3). The goal was to improve practice for all education professionals through ongoing learning. Professional learning through reflection is based on responsibility and willingness to reassess practices with an open mind. The identified potential benefits are increased agency and ownership of learning for professionals, improved individual, collective, and student outcomes, opportunities for deep learning and the acquisition of new knowledge and skills, and positive institutional changes. Based on our review of the international evidence concerning effective reflective practice, Wales has developed a clear and coherent focus on professional learning and reflection designed to contribute positive impacts for participants, for learners, for educational institutions, and for the overall education system.

6.3 Within this framework, the Welsh Government launched the Professional Learning Passport (PLP) in 2016 (Tyler, n.d.). Created and facilitated by the Education Workforce Council (EWC), this e-portfolio, also accessible through the application Pebblepocket, offers the opportunity for educators to create a personal MyEWC account and confidentially gather and potentially share their formal and informal professional learning experiences as well as their reflective journey in the form of a portfolio (EWC, n.d.). The platform provides templates, prompts, educational research, and theoretical material to support structured reflective practice. However, the PLP also offers sufficient flexibility through the provision of a range of creative tools that enable users to freely choose how to best make use of this platform and the resources available. The evidence we have reviewed concerning reflective practice indicates the importance of establishing and maintaining tools and resources to support and scaffold effective reflective practice, including online resources such as the PLP platform.

6.4 Becoming and being a reflective practitioner is important at all career stages and for all education professionals. It is appropriate therefore that the PLP is also tailored to educators according to their professional category by providing differentiated and relevant documentation for school and further education teachers and support workers, Newly Qualified Teachers (NQTs), youth and youth support workers, and work-based learning practitioners. The aim of the PLP is to allow education professionals to identify ways in which the PLP can meet their unique needs and provide the support they are looking for throughout the different stages of their career.

6.5 To support the uptake of the PLP, the EWC has created several short videos to explain the benefits of using the PLP. While the use of the PLP is mandatory for Newly Qualified Teachers (NQTs) and encouraged in the context of formal professional development, it is optional for all other educators. It will be important

to monitor the uptake of the PLP across all educators over time. There is a fine balance between effective reflective practice which is professionally led, genuine, authentic, and deep, contrasted with the negative consequences of overly directed requirements for reflection as accountability and performativity. The Welsh approach takes this into consideration in not mandating reflective practice for all. However, as the evidence is clear that reflection plus experience is important for improving performance and outcomes, leadership at all levels of the system encouraging and supporting reflective practice by all education workers is vital.

6.6 In 2017, the original 55 standards for the teaching profession were simplified into five core Professional Standards for Teaching and Leadership: Pedagogy, Collaboration, Innovation, Leadership, and Professional Learning (Welsh Government, 2018). The standard focusing on professional learning explicitly refers to the necessity for teachers to engage in reflective and challenging learning for ongoing improvement in their practice. However, all standards are meant to be used as a basis for reflection on practice according to values common to all educators and leaders in education (Hwb, 2020). The standards are underpinned by six values and dispositions: Welsh language and culture, Rights of learners, Literacy, numeracy and digital competence, The professional learner, The system role, and Professional entitlement. Embedding reflective practice as a professional responsibility and a professional right is important and the linkage to standards in Wales is consistent with international good practice.

6.7 Building on the 2018 National Approach to Professional Learning, the Welsh Government created the National Professional Learning Entitlement. This Entitlement aims to guarantee quality professional learning opportunities for all educators and emphasises an approach to professional learning based on reflective practice and inquiry (Hwb, n.d.). The initiative presents reflection as an evaluative process for enquiry into pedagogy. Clear entitlements are listed for each education profession and each entitlement is linked with what effective practices look like. Suggested approaches to sustain such effective practices are also listed. For both leaders and teachers, the entitlements encourage individual and collaborative reflective practice as well as the use of the PLP to record reflections and outcomes.

6.8 An evaluation of the recently introduced Professional Standards (PS) and the wider national framework for the education profession by Thomas et al. (2023) identified ways in which the PS have been integrated in education professionals' practices. One way to engage with the PS and further embed them in education professionals' work is the use of the PLP. The evaluation found that the PLP was mostly used when it was mandatory (NQTs) or proposed within formal settings for both teachers and leaders (formal CPD). Leaders who took part in formal training that encouraged the use of both the PLP and the PS were more likely to continue using both of them after the training and encourage their staff to do so too. Although professional development providers are free to choose how participants should make use of the PLP and the PS, some ITE providers felt that making the use of the PLP mandatory could lead participants to focus on completing the task rather than focusing on the depth and outcomes of their reflection. This point emphasises the importance of balancing structured support and individual flexibility.

While the PS were sometimes used as part of performance management, they were also perceived as useful to guide both self-reflection and collaborative reflection structured around a common language and framework. The scaffolding presented by the PS was helpful in facilitating the reflective process. In some settings, a focus on ongoing learning through reflection allowed a shift from feeling judged based on fixed criteria toward a culture of reflection with greater openness to change. Stakeholders felt that allowing a wide range of evidence formats could enhance the quality of reflections. Several stakeholders felt more guidance on how to appropriately use and interpret the standards as part of reflective practice could be helpful.

6.9 The recent development of a National MA (Masters) in Education (Wales), collaboratively developed by seven universities in Wales and stakeholder engagement including the Welsh government, is a further tremendous resource. The MA includes a range of options for education professionals at various career stages, from early career to senior leaders. Evidence on developing reflective practitioners is clear that this is important at all career stages. The international evidence is also clear that while some people are more inclined towards having a habit of reflection, becoming and being a reflective educator and reflective leader is something that needs professional learning support to engage in deep, meaningful, and impactful reflection. The emphasis on enquiry within the MA is to be fully encouraged. The PLP can be used as part of this MA to encourage learning and reflection and record individual progress.

6.10 Leaders being reflective practitioners and encouraging and supporting the people who they work with to be reflective practitioners matters. It is therefore important that educational leaders learn about the purpose, processes, and use of reflective practice for themselves, but also the leadership practices associated with facilitating and enabling reflective practice in their workplaces. Learning to lead reflective practices, as part of leading educators, needs to be key components of all leadership development in Wales.

6.11 As well as national policies, frameworks and resources, various targeted initiatives also exist within the Welsh education sector. It is beyond the scope of this review to consider all local initiatives; however, we highlight two examples below.

6.12 Supported by the Welsh Government, the initiative Talk Pedagogy, Think Learning began in 2021. Offering a range of live sessions, this initiative encourages practitioners in education to join a reflective community and collectively reflect on pedagogical topics and various approaches to teaching the Curriculum for Wales (Hwb, 2023). The goal is to encourage educators to share practices and engage in conversations and collaborative reflection to identify innovative and beneficial approaches to teaching. The sessions are facilitated by education professionals such as universities, professors, Regional Education Consortia partners, schools, and school networks, local authorities, the National Academy for Educational Leadership, and Higher Education Institutions. These are important facilitated resources to support focused reflection linked to pedagogical knowledge and practices. Our review of evidence concerning reflective practice in education indicates such a focus on pedagogy is key to improving students' learning experiences and outcomes.

6.13 Reflective practice in Wales is also encouraged in Early Years education. A recent toolkit for reflective practice in early childhood was developed by the Welsh Government in 2023. The toolkit aims to support educators in the delivery of the new vision Early Childhood Play, Learning and Care (ECPLC) and promotes ongoing learning through reflection to support all children in educational settings (Welsh Government, 2023). The toolkit is aimed at all professionals in childcare education; leaders and practitioners, parents and caretakers, local authorities, regional consortia and health boards, inspectorates, and third sector organisations. The toolkit is meant to be used for self-reflection, collaborative reflection, or as a basis to facilitate a reflective discussion. Through the identification of seven quality themes to guide reflection, the resource suggests a 4-step process: finding out, thinking about, making plans, and getting things done. Quality standards are provided for each theme according to a child's age and several templates and tables are provided to guide the reflective process through the 4 steps identified and record comments on each stage. Reflective practice is presented as an assessment of practices according to a quality improvement approach. The use of frameworks for reflective practice and an inquiry process with guiding questions is important.

6.14 Reflective practice is a central feature of professional learning and practice in the Welsh education system. There are a range of frameworks, policies, resources, tools, and professional learning opportunities that are consistent with the available evidence concerning the nature, conditions and supports necessary for effective reflective practice to be developed and sustained. Key areas for the further development of effective reflective practice in Wales are to ensure all education workers have access to professional learning opportunities to learn about the purpose and effective use of reflective practice, and have the necessary supports, including time, tools, resources, and leaders' encouragement, to engage in individual and collaborative reflective practice.

6.15 A commitment to reflection also applies at the overall system level, and we encourage all partners and professionals involved in the Welsh education system to consider the evidence reviewed in this report concerning the theories, concepts and approaches for reflective practice and leadership of reflective practice, use of reflective practice in the education sector, and the impact of reflective practice to consider ""what is needed now and next to ensure effective practice is supported and embedded in Wales?" Central to this question is the vital importance of leaders and leadership, at all levels, engaging in, encouraging, and ensuring support for reflective practice to benefit education professionals, learners, and their communities.

6.16 The international evidence is clear, when used effectively, reflective practice can benefit professionals, learners, and educational improvements in institutions and systems. The learners of Wales deserve no less.

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