



ARC Papers | Paper 004

The Architecture of Professional Intelligence

How Professional Judgement Is Formed

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Abstract

Paper 003 established that Professional Intelligence explains the continual professional processing through which professional judgement develops. It introduced the Professional Intelligence Cycle as a conceptual model describing the ongoing interaction between professional noticing, interpretation, prioritisation, professional judgement and action.

Educational research has demonstrated the importance of curriculum, pedagogy, formative assessment, teacher cognition and evidence-informed practice in improving professional decision-making.[1][2][3][4] Collectively, these fields explain important dimensions of effective teaching. They do not, however, seek to explain how these domains continually interact to form professional judgement during the act of teaching.

This paper proposes that Professional Intelligence provides an architecture through which curriculum, pedagogy, assessment, evidence and context are continually synthesised into coherent professional judgement. Understanding this architecture shifts attention from improving individual components of teaching towards strengthening the continual interaction between them.



The Professional Intelligence Cycle



Figure 1. The Professional Intelligence Cycle conceptualises the continual professional processing through which educators notice, interpret, prioritise, exercise professional judgement and act. The cycle represents a model of professional processing rather than a prescribed instructional sequence.

Paper 003 introduced the Professional Intelligence Cycle as a conceptual model of continual professional processing. This paper explains the professional architecture through which that processing is continually informed.



The Architecture of Professional Intelligence

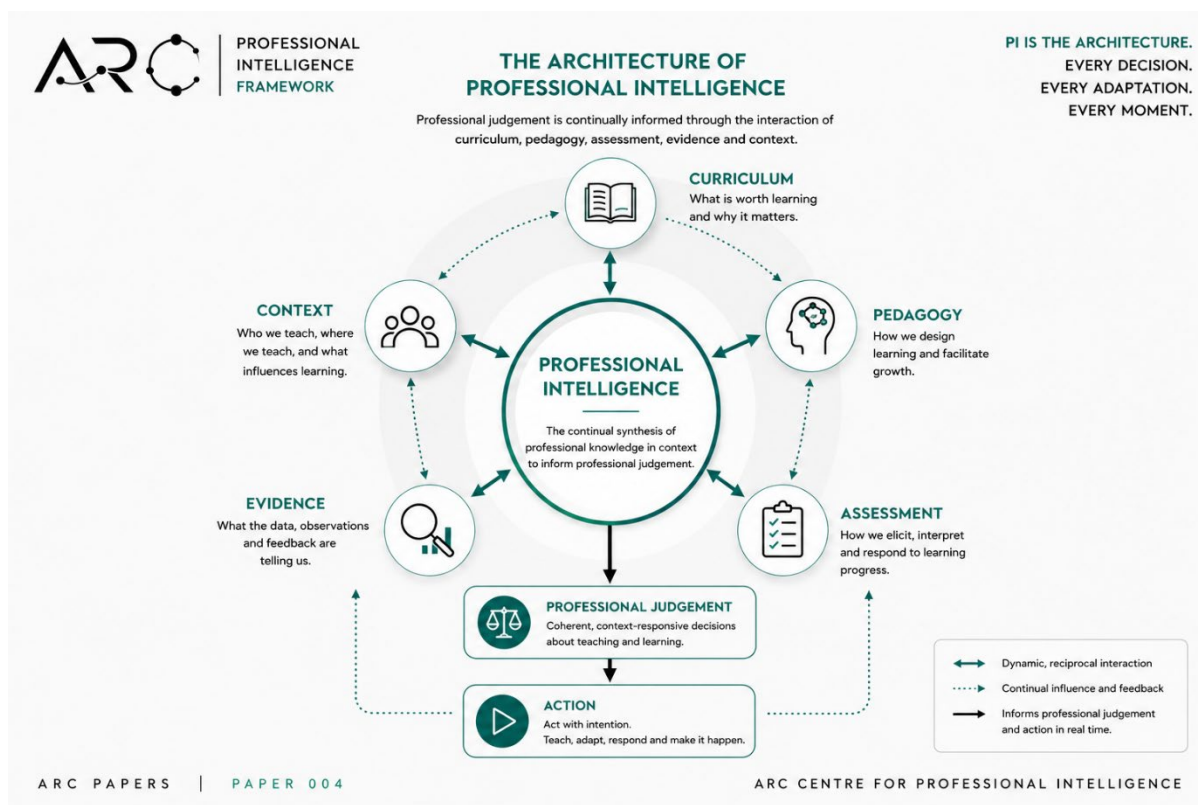


Figure 2. The Architecture of Professional Intelligence

Professional judgement is continually informed through the interaction of curriculum, pedagogy, assessment, evidence and context. Professional Intelligence provides the conceptual architecture through which these domains are synthesised into coherent professional judgement.

Figure 2 illustrates the professional architecture that continually informs the Professional Intelligence Cycle.

Figure 1 represents the continual processing through which educators notice, interpret, prioritise, exercise professional judgement and act. Figure 2 identifies the professional domains that shape that processing. The relationship between the two figures is important. Figure 1 explains how Professional Intelligence operates. Figure 2 explains what continually informs that operation.

Professional judgement does not emerge from curriculum alone. Nor from pedagogy. Nor from assessment. Nor from evidence. Nor from context. It emerges through their continual interaction. Professional Intelligence provides the conceptual architecture through which that interaction can be understood.



The Continual Interaction of Professional Knowledge

The Professional Intelligence Framework proposes that professional judgement is not informed by a single source of professional knowledge. It emerges through the continual interaction of curriculum, pedagogy, assessment, evidence and context as educators respond to the dynamic conditions of practice.

Educational research has substantially strengthened understanding within each of these domains. Shulman's work established that effective teaching requires educators to integrate knowledge of subject matter, curriculum, learners and pedagogy rather than treating them as separate forms of knowledge.[1] Research into formative assessment demonstrated that evidence becomes formative when it is interpreted and used to inform subsequent teaching and learning decisions.[2] Research into teacher cognition has also examined the relationship between teachers' planning, interactive thinking, decision-making and classroom action.[3] Collectively, these traditions have improved educators' understanding of teaching.

The Professional Intelligence Framework seeks to explain how these established domains continually interact during professional practice.

Each professional domain contributes a distinct form of professional knowledge. Curriculum establishes educational purpose. Pedagogy provides instructional possibilities. Assessment creates opportunities to establish what students currently understand. Evidence informs professional interpretation. Context determines the relevance and appropriateness of possible responses.

These domains are interdependent. Curriculum intent shapes the evidence an educator seeks. Assessment evidence may indicate that an intended sequence should be revisited. Pedagogical knowledge provides possible responses, while contextual knowledge influences which response is most appropriate for the learners, the classroom and the moment.

Their relative significance also changes continually.

During one lesson, emerging assessment evidence may require immediate attention. In another, curriculum progression may determine the most appropriate next step. On another occasion, prior knowledge, classroom climate, language, student wellbeing or an unexpected misconception may appropriately reshape professional judgement.

Professional Intelligence does not permanently privilege one domain over another. It continually determines which professional knowledge is most instructionally significant within a particular context.

This continual recalibration distinguishes professional judgement from procedural decision-making. Professional judgement is adaptive rather than algorithmic. It cannot



be reduced to a checklist. Nor can it be generated through the application of predetermined rules.

It is formed through the dynamic interaction of professional domains, each informing and reshaping the others as new evidence emerges. The architecture of Professional Intelligence is therefore dynamic. It is continually reconstructed throughout professional practice rather than applied as a fixed model.

From Professional Judgement to Adaptive Teaching

Professional judgement is not the endpoint of Professional Intelligence, It becomes educationally meaningful when it is enacted through teaching.

Recent guidance from the Education Endowment Foundation positions inclusive teaching as the combination of strong universal classroom practice together with carefully selected adaptations and additional support where required. Importantly, these adaptations are intended to strengthen access to high-quality teaching rather than reduce cognitive demand or lower expectations. [4][5][6]

This reflects an increasingly explicit recognition of what effective teaching has always required. Rather than viewing adaptation as something separate from effective teaching, adaptive teaching becomes the continual professional exercise of judgement in response to emerging evidence.

Planning establishes professional intent. It clarifies the curriculum, anticipates learning needs and prepares possible instructional responses. It cannot, however, predetermine every misconception, question, barrier or opportunity that will emerge once teaching begins.

Professional judgement determines how planned intent is realised within the changing reality of the classroom. The problem is not planning itself. The problem arises when overly static planning and documentation are treated as substitutes for responsive professional thinking.

In many systems, educational practice became increasingly characterised by detailed planning and documentation that sought to anticipate professional decisions in advance. While planning remains essential, no written plan can anticipate the complexity of classroom learning as it unfolds. Responsive professional judgement has always been the defining work of teaching.

A written plan records an intended pathway. It cannot fully represent the professional noticing, interpretation and adaptation required as learning unfolds. Effective teaching therefore involves remaining anchored to curriculum purpose while responding intelligently to emerging evidence.

Within the Professional Intelligence Framework, adaptive teaching is not another professional domain. It is the observable enactment of professional judgement.



Professional knowledge provides what educators can think with. Professional Intelligence synthesises knowledge, evidence and context. Professional judgement determines the most appropriate response. Adaptive teaching makes that judgement visible in practice.

Adaptive teaching is the observable expression of Professional Intelligence.

This does not position adaptive teaching as a new version of teaching. It recognises that teaching and learning were always intended to be responsive. The increasing emphasis on adaptive and inclusive practice restores attention to the central professional responsibility of the educator: to notice what is occurring, interpret its significance and act without losing sight of the intended learning.

The architecture of Professional Intelligence provides a conceptual explanation for how that responsiveness is formed.

Closing Reflection

Professional judgement is continually formed through the interaction of curriculum, pedagogy, assessment, evidence and context.

Professional Intelligence provides the architecture through which those domains are synthesised into coherent professional judgement. That judgement is then enacted through adaptive teaching. The relationship can therefore be expressed clearly:

Professional knowledge provides the foundations. Professional Intelligence provides the processing capacity. Professional judgement provides the decision. Adaptive teaching provides the observable enactment.

Understanding this architecture shifts educational improvement from strengthening individual components of teaching towards strengthening the continual interaction through which professional judgement is formed.

Planning remains essential. Curriculum remains essential. Evidence remains essential.

Their educational value, however, is realised through the Professional Intelligence of the educator.

Understanding Professional Intelligence therefore becomes fundamental to strengthening professional judgement, adaptive teaching and, ultimately, student learning.

Professional Intelligence provides the architecture through which those professional decisions are continually formed.

Paper 005 considers the next question. *If Professional Intelligence shapes the quality of professional judgement, can it itself be intentionally strengthened?*



References

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