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Measuring competences as relational affordances: a methodological proposal for assessing learning of adults in innovation contexts

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Abstract. Competence is not an exclusive property of the person. Knowledge, skills and experience contribute to competent action, but their exercise depends above all on the relationships, resources, rules and timeframes of the operational context. The paper explores this perspective by introducing the *Relational Potentials Matrix* (RPM), a diagnostic framework that links desired impact, observable acts, contextual conditions, evidence, responsibilities and interventions. Its architecture comprises a level of abstraction, a Context Canvas, a matrix of relational potentials and an intervention plan, complemented by a Context Pact. The elementary unit of analysis is the relationship between a condition and a specific act, referred to defined subjects and time windows. Three real applications of the framework, two relating to professional assignments and one to a training programme, illustrate its use in different configurations and show how the same condition can have different effects depending on the act, the mandate and the moment considered. On this basis, the paper proposes that the role of the trainer and the innovator evolve into that of an architect of contexts, called upon to design and negotiate the conditions that allow competences to translate into actual impact.

Keywords: competence; relational affordances; context design; workplace learning; training; professional onboarding; teams; innovation.

1. Introduction

The availability of adequate skills has become one of the main concerns of organisations engaged in processes of technological and organisational transformation. The *Future of Jobs Report 2025*, based on the responses of more than one thousand employers representing over 14 million workers, finds that 63% of respondents consider skill gaps one of the main barriers to business transformation (World Economic Forum, 2025). An earlier global McKinsey survey had found that 87% of executives reported already observing skill gaps in their organisation or expected them to emerge within five years (McKinsey & Company, 2020). There is, therefore, a gap between the capabilities required by organisations and those actually available, whose determinants continue to be a central research topic.

Research on work shows, in fact, that possession and use of skills can diverge. The OECD Survey of Adult Skills has highlighted an imperfect relationship between proficiency and skills use: workers with high levels of proficiency may have limited opportunities to use them and, in some countries, up to one in three highly skilled workers rarely uses at work the capabilities measured by the survey (OECD, 2026).

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The problem therefore takes on an organisational as well as an individual dimension. Earlier Cedefop analyses had already observed that the configuration of tasks and the degree of autonomy granted to workers influence the possibility of using available skills (Cedefop, 2015). The first findings of the European Training and Learning Survey reinforce this perspective. The survey, conducted on more than 44,000 European workers, associates skills development with conditions such as job autonomy, managerial support, clarity of learning objectives, career development prospects and workloads compatible with learning (Cedefop, 2026).

A similar conclusion emerges from research on training transfer. Baldwin and Ford's (1988) classic model distinguishes factors relating to the trainee, to the training design and to the work environment. Subsequent literature has continued to document the role of organisational support and opportunities to apply; the meta-analysis by Blume et al. (2010), conducted on 89 empirical studies, finds positive associations between transfer and individual, motivational and environmental variables, including a work environment supportive of application.

This evidence has a methodological consequence. When a trained person does not apply what they have learned, when a qualified professional does not achieve the expected result, or when a team with the required skills does not deliver the expected performance, the observed outcome does not automatically identify the cause. There may be a gap in the person's repertoire. Information, resources, access, collaboration or decision-making latitude may be lacking. The mandate may be inconsistent with the responsibilities assigned, or the necessary conditions may become available beyond the relevant time window. Several explanations may also contribute to the same episode.

The central issue therefore concerns diagnostic attribution: how can we distinguish, in a traceable way, between limits of the repertoire, conditions of exercise and other competing explanations when an expected action does not take place? The literature on situated competence, on *affordances*, on training transfer and on ability-motivation-opportunity models provides relevant theoretical foundations for understanding the relationship between person and environment. At the applied level, a procedure remains useful that systematically links a desired impact to the acts needed to pursue it, to the conditions affecting their exercise, to the available evidence and to the actors able to intervene.

To this end, the *Relational Potentials Matrix* (RPM) framework has been developed. RPM takes as its elementary unit of analysis the relationship between a condition and a specific act, referred to identified subjects and a defined time window. The framework links diagnosis to evidence, responsibilities, interventions and subsequent checks. The proposal is methodological and exploratory in nature. The validity of the categories, the reliability of coding, the costs of application and the effectiveness of interventions are the subject of the research programme outlined in the final sections.

The paper first reconstructs the theoretical and empirical foundations of the relational perspective. It then presents the principles and tools of RPM, discusses its adaptation to training, professional onboarding, team composition and organisational innovation, and illustrates its use through three real applications, two relating to professional assignments and one to a training

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programme. The concluding sections examine the implications for context design and set out the priorities for the empirical validation of the framework.

2. Foundations and position in the literature

2.1 Competence in a relational perspective

Cedefop's definition of competence includes the proven use of knowledge, experience and skills in work or learning situations, and recognises an individual or collective dimension (Cedefop, n.d.). Reference to the situation is therefore already present in the institutional vocabulary. RPM does not assume that existing definitions ignore context; it seeks to make operational the analysis of the conditions through which a capability can be exercised.

The thesis adopted is that competence is not an exclusive property of the person. The person possesses knowledge, skills, dispositions and experience and retains their own capacity for initiative. The possibilities of exercising that repertoire depend on the relationship with the conditions of the situation in which the action is to take place. If its exercise is prevented, a competence recognised in one context does not disappear: what changes is the configuration in which it can manifest itself and be assessed.

This position requires distinguishing the personal repertoire from the situated possibility of using it. The term "potential" denotes the repertoire relevant to the action considered, documented with an explicit degree of evidence. It does not designate a general talent, an immutable quality or a measure independent of any situation. The repertoire, too, is known through experiences, tests and performances situated in specific contexts.

2.2 Affordances and actualisation

Chemero's (2003) relational formulation of affordances locates possibilities for action in the relationship between the agent's abilities and features of the environment. Rietveld and Kiverstein (2014) extend attention to the variety of human abilities and to the socio-cultural practices within which they operate. These references support the choice to analyse a possibility for action in relation to who can exercise it and to the situation in which it acquires meaning.

In RPM terminology, **a relational affordance is a possibility for action relevant to an agent and a situation**. An available resource does not automatically coincide with a usable affordance: an information system present in the company may be inaccessible to a new hire, or may require a capability that they have yet to develop. Nor does the affordance coincide with the action performed. Strong et al. (2014), in the domain of healthcare information systems, distinguish the potential of affordances from the processes of their actualisation. RPM adopts this distinction as an analytical orientation, without assuming that findings from that domain validate its own framework.

Actualisation thus refers to the observable exercise of a possibility for action. The expression "competences as relational affordances" identifies a reading perspective, not a terminological equivalence between capability, opportunity and behaviour. Keeping them distinct makes it possible to ask separately whether the capability is documented, whether the opportunity is accessible and whether the action has occurred.

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2.3 Learning and training transfer

Billett (2001) describes workplace learning through the relationship between the opportunities afforded by the environment and individuals' engagement. The availability of activities and support does not remove the role of personal choice and participation. For RPM, this approach justifies an analysis in which both the organisation and the person contribute to the exercise and development of capabilities, without presupposing that they have the same power to change conditions.

The literature on training transfer has long assigned a role to trainee characteristics, training design and the work environment (Baldwin & Ford, 1988; Burke & Hutchins, 2007; Blume et al., 2010). RPM fits into this strand with a specific operational purpose: to make traceable the step from observed conditions to diagnosis and from diagnostic hypotheses to intervention decisions.

The Cedefop (2026) report on the first findings of the European Training and Learning Survey associates skills development and participation in learning with personal and job-related factors. Autonomy, managerial support, availability of information and workload are among the conditions associated with participation and development; the report also stresses that workplaces support learning by offering opportunities and by setting requirements and incentives that encourage the use of skills. This evidence motivates the interest in working conditions; it does not demonstrate the effectiveness of RPM, nor does it allow a single outcome to be causally attributed to a condition.

2.4 The contribution relative to AMO

The *Ability-Motivation-Opportunity* framework is a relevant reference because it considers performance in relation to ability, motivation and available opportunities. The review by Bos-Nehles et al. (2023) highlights the heterogeneity of conceptualisations, measures and levels of analysis in the AMO literature, including formulations that consider interactions between factors. RPM operates at a narrower diagnostic level, taking as its unit of analysis the relationship between a specific condition and a defined act and linking that relationship to evidence, responsibilities and possible interventions. The empirical relationship between the two approaches is a topic for further studies.

2.5 Origin of the lenses and theoretical boundaries

The seven lenses of the Context Canvas were developed in the work of an innovation manager in innovation and training projects. They are a heuristic repertoire derived from practice, subsequently brought into dialogue with the literature. They are not dimensions extracted from a factor analysis, universally exhaustive categories or already validated constructs. Their coverage and the distinction between them need to be tested.

Floridi's (2008) method of levels of abstraction offers an important reference for declaring what is being observed and in relation to which question. The RPM LoA sheet is an operational adaptation of it, not a full reproduction.

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2.6 Relationship with qualitative and ethnographic inquiry

RPM shares with qualitative and ethnographic research its attention to practices, meanings, relationships and situations. Ethnography makes it possible to reconstruct in depth the processes through which actors interpret and produce organisational practices, and may have applied purposes (Hammersley & Atkinson, 2019). RPM performs a narrower function, oriented towards diagnosing the exercise of specific acts through the relationship between conditions, evidence, effects, modifiability and interventions. Observations, interviews and document analysis can feed the RPM evidence log; an ethnographic inquiry can help re-examine the categories and hypotheses through which the problem was initially framed. The two approaches therefore present potential forms of complementarity.

3. Object and principles of the framework

3.1 Unit of analysis and distinct objects

The elementary diagnostic unit is the relationship between a condition and an act of competence, referred to a person or to explicitly identified subjects, within a defined time window. The formula "**condition × act**" denotes an analytical cross-reference, not a multiplication or an already estimated statistical interaction. A statement such as "autonomy is low" acquires diagnostic meaning when it is specified which decision cannot be taken, by whom and by when.

Table 1: Objects of assessment and relevant traces

Object	**Question**	**Relevant trace**
Personal repertoire	What capability is available and on what basis do we claim it?	Verifiable task, artefact, episode or experience
Conditions of exercise	What is accessible for this act?	Actual access, decisions, resources and availability of collaborators
Actualisation	Was the act performed, and with what quality?	Observed behaviour or work output
Learning	What has changed in the capability?	Comparable tasks over time, with consistent assessment criteria
Result and impact	What change followed, and for whom?	Proximal outcomes and subsequent benefits, with alternative explanations

The presence of an output is not enough to demonstrate learning: it might reflect a prior capability or decisive help. Achieving the desired impact does not, on its own, prove the effectiveness of the RPM intervention. These distinctions limit what can be inferred, but make the design of checks more precise.

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The failure to perform an act also necessarily requires interpretation. A competent professional may suspend, refuse or postpone an action when conditions of legality, safety, information or mandate are lacking. In such cases, non-action may be the observable outcome of a competent judgement, if the criteria used, the alternatives considered and the relevant constraint are documented. RPM therefore avoids automatically treating every absence of action as a capability deficit or as a contextual impossibility.

3.2 Relationality and reciprocity

The relationship is constitutively relevant to the concrete possibility of acting, since it helps define which possibilities for action are accessible in a given situation. This thesis leaves individual characteristics intact; they can also be studied separately. It does, however, require that the diagnosis of their exercise also reconstruct the relevant conditions.

The relationship is reciprocal. Conditions affect action; people can, through action, transform resources, rules, interpretations and relationships. A professional may propose an assessment criterion that was previously absent, build a prototype that opens a choice to discussion or negotiate a faster procedure. Such reciprocity is a possibility to be documented, not a property demonstrated by the mere updating of the sheets.

3.3 Perspectives and responsibilities

The user operates from a declared position. The Canvas describes organisational conditions from that position: it is not a neutral or interpretation-free view. For this reason, the framework distinguishes facts, testimonies and readings, preserves divergences and makes the step from sources to diagnosis auditable. Plurality of perspectives also concerns the definition of impact: what constitutes a benefit for the client may entail costs for those who have to deliver it.

“The context” is not treated as a unitary subject endowed with intention. Its capacity to enable or hinder operates through people, decision-making arrangements, tools, rules and practices. Identifying who can change a condition prevents reference to the context from becoming an explanation without operational responsibilities.

3.4 Invariants and adaptations

RPM combines a stable structure with highly adaptable content. Invariant elements include, for example, the situated question, the breakdown into acts, the traceability of evidence, the distinction between effect and uncertainty, the definition of responsibilities and follow-up. What varies are the competences analysed, the observables, the sources, the quality criteria and the time horizon. The framework does not adopt a predefined catalogue of competences to be analysed. The selection of technical and transversal competences is made by the user according to the desired impact and the acts needed to achieve it.

4. The diagnostic framework

4.1 Framing and level of abstraction

The work begins with a brief framing of the problem, distinct from the systematic collection of evidence. The mandate, the parties involved and the desired impact are clarified. On this basis,

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the Level of Abstraction (LoA) is completed, before structured data collection. The distinction resolves a possible procedural ambiguity: a preliminary interview may serve to formulate the question, but the evidence used to support it must be collected or reclassified within a declared design.

The LoA specifies the diagnostic question, the unit of analysis and the quality criterion. It distinguishes the observables, the recordable values, the planned sources, the time window and the relevant lenses. It also makes explicit the elements excluded and the reasons for exclusion. If new observables emerge, the sheet is updated while retaining the previous version.

The desired impact is translated into proximal outcomes and observable acts. “Increasing innovation” is too broad and generic for the matrix; “proposing and submitting for decision an experiment with explicit success criteria by a given date” is more analysable. The quality criterion must describe the act well performed without automatically incorporating the final result, which also depends on other factors.

The LoA records competing explanations: insufficient repertoire, low willingness to engage in the act, missing technical prerequisites, inconsistent responsibilities, unrealistic demands or external events. The categories guide the search and may overlap. For each explanation, the observation that would make it more or less plausible is indicated; listing it is not enough to declare it excluded.

4.2 Selecting competences and defining acts

The user selects the relevant competences with input from the people and managers concerned. The selection follows the path from impact to the necessary acts, and from the acts to the capabilities required. If a suitable professional framework exists, it is used as an explicit reference; if local descriptors are built, their rationale is recorded. Flexibility does not authorise choosing competences after seeing the outcome, in order to confirm a preferred explanation.

Each competence is described through sufficiently circumscribed acts. “Stakeholder management”, for example, may include identifying interlocutors, gathering needs, formulating a proposal and obtaining a decision. The acts have different requirements and should not be given a single classification for convenience. When a column covers several acts, each cell specifies the act it refers to; if effects diverge, sub-columns or separate sheets are used.

The distinction between acts that can be performed directly and acts that require others is relative to the mandate. “Preparing a proposal” may be within the person's remit, but still require data or time. “Approving a change” may legitimately belong to another role. The framework therefore checks both the capability to perform the act and the right or responsibility to perform it.

The repertoire is recorded separately from the conditions. A statement by the client, a self-assessment and an examined artefact are different in nature. If a capability is expected as the result of a course, it is recorded as a capability to be developed, not as one already present. This allows ex ante use without pretending that learning has taken place.

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4.3 Evidence collection and evidence log

The collection process involves, where possible, at least three key roles: the person directly concerned, the manager and the collaborators. This is a practical rule to encourage a variety of viewpoints, not an automatic guarantee of validity. The absence of one of these figures makes the diagnosis partial, and its implications must be specified. Finally, a single source may suffice for a preliminary analysis, but is not sufficient to represent an organisational consensus.

Interviews, documents and observations look for circumscribed episodes: what request was made, when, to whom, with what response and with what consequences. A judgement such as "nobody collaborates here" must be attributed to a source and explored through verifiable events. Negative episodes should be accompanied, where available, by episodes in which the action succeeded, in order to identify alternative conditions and to avoid a selective reading.

Each piece of evidence is assigned an identifier, a description, a source, a date or interval and an indication of how it was obtained: **R for document, data or direct observation; F for testimony; F2 for converging independent testimonies; I for explicit inference; ? for unavailable information**. These codes describe epistemic provenance, not an automatic reliability scale. A document may be outdated, and two sources may share the same error.

The assessment of supporting evidence considers relevance to the act, currency, independence, empirical corroboration and any contradictions. An inference may rest on solid documentation without thereby becoming a directly observed fact; uncertainty must therefore be made explicit for each individual conclusion. Where a conclusion depends on an unverified indispensable premise, it remains provisional, without resorting to a mere ordinal ranking of all sources, including ancillary ones.

"Independent sources" means contributions collected separately, not derived from one another and converging on the same event or organisational arrangement. Consequently, several testimonies originating from the same information chain, from a single document or from a group reproducing a shared narrative do not automatically count as independent evidence (F2). In group analyses, this rule prevents apparent numbers from being confused with real diversity of perspectives.

The validity of a conclusion cannot exceed that of the indispensable premise on which it rests. This is a principle of logical dependency and not an ordinal scale: uncertain ancillary information does not automatically invalidate the conclusion as a whole, whereas a necessary but unverified prerequisite makes it provisional or not assessable.

4.4 Context Canvas and seven lenses

The Context Canvas organises the relevant evidence without attributing an overall judgement to the person. The seven lenses prompt different questions about the same situation. The selection of lenses for an observable is declared in the LoA; all seven are considered in the context coverage check, without forcing the completion of combinations lacking relevant evidence.

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Table 2: Context Canvas lenses

Lens	Operational question	Example observable
Frame	How is the work in question understood?	Description of the mandate in meetings
Salience	What is actually given attention?	Time devoted to the project in decision-making meetings
Value	What is recognised and valued?	Criteria used in assessing contribution
Possibility	What resources are available and accessible?	Data, tools, budget and allocated time
Constraints	What rules and authorisations govern the act?	Decision thresholds and approval procedures
Fabric	What relationships and dependencies make the work possible?	Collaborations activated and necessary interlocutors
Time	When are the conditions available, and for how long?	Response times relative to the act's deadline

Frame, salience and value distinguish attributed meaning, actual attention and criteria of recognition. They do not constitute a predetermined causal sequence. Time cuts across the other lenses: a resource available after the deadline may not be usable in the episode considered. A primary lens of origin facilitates ordering; cross-references preserve the relationships between conditions and prevent classification from erasing relevant dependencies.

Circumscribed conditions are derived from the log, formulated as states relevant to the question. “No method, no tool and no protected time” should be broken down if the three elements require different interventions or produce different effects. The synthesis must not conceal different mechanisms. Each condition refers to the evidence supporting it and to any alternative interpretations. The same piece of evidence may be cited several times, but does not thereby become multiple independent pieces of evidence.

4.5 Matrix of relational potentials

The matrix crosses conditions and acts. For each relationship it records the hypothesised or observed effect, who can change the condition and the strength of the supporting evidence. The assessment of the effect specifies the mechanism: for example, an undefined threshold may make the authorisation request repetitive and increase the time needed to act.

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Table 3: Coding dimensions

Dimension	Categories	Interpretation rule
Effect on the act	+ facilitates; 0 no relevant effect; − increases costs or difficulty; × prevents	Referred to an act, a person or configuration of persons and a window
Modifiability	P person; C person with others; A others; N no actor identified within the window	Requires the name of the role and the conditions of the change
Provenance	R, F, F2, I, ?	Reference to the evidence and to the rationale for the conclusion
Status of the conclusion	Supported within scope; provisional; contested; not assessable	Reasoned judgement, without automatic numerical thresholds

A positive effect indicates an enabling condition; a negative effect that makes the act more burdensome is a friction. An impediment requires an explanation of the necessary prerequisite that is missing, or of the constraint that rules out the act within the defined window. “Expected impediment” denotes an ex ante prediction, with the related assumptions. If the evidence is insufficient, a hypothesised impediment remains provisional: it does not automatically become a friction. “Unknown” means that the effect cannot yet be assessed, not that the effect is nil.

The lever describes a possibility for intervention and is kept distinct from the sign of the effect. A condition may represent a friction and be modifiable by the person, or facilitate the act without being under their control. Separating the two aspects prevents the “lever” label from concealing the current problem. A conditional lever makes explicit prerequisites that depend on others.

An authorisation obtainable case by case, for example, may generate friction. If, however, it arrives after an essential deadline, the same process may prevent that act within the window considered. Conversely, the presence of hierarchical approval does not demonstrate a block: it may be a legitimate and functioning condition. To support an impediment, the consistency between act, mandate, decision path and available time must be verified.

4.6 Feasibility and reading dependencies

The necessary prerequisites of an action follow a non-compensatory logic: an indispensable authorisation or access cannot be replaced by ancillary elements, however positive, such as a good working climate. Nevertheless, the same result can be reached by different routes, for example through direct consultation of data or an authorised collaboration. Before concluding that an action is unfeasible, it is important to check all possible alternatives.

The absence of information on a necessary prerequisite prevents determining the feasibility of the route analysed, without implying the absolute impossibility of the action. Conclusions must therefore specify the routes examined and the conditions deemed indispensable. Within this

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framework, cumulative frictions must be weighed against time constraints and sustainable workload: a series of individually feasible acts may prove unfeasible when considered as a whole within the same time window.

Analytically, reading by rows highlights the conditions that affect several acts, while reading by acts reconstructs the systemic requirements of the action; the interconnections between rows must be made explicit to avoid treating interrelated factors as independent causes. Finally, the framework adopts the wording "mechanism hypothesis" when the evidence does not allow a definite causal attribution. Numerical aggregation of the labels is not envisaged, consistent with the diagnostic purpose of the framework and with the absence of a validated scale.

4.7 Intervention plan and Context Pact

The Intervention Plan identifies the changes motivated by the relationships emerging in the matrix. It may include organisational changes, capability development and combined interventions. If the person does not know how to analyse data, learning may be needed; if they know how but do not have access, action is needed on access; if the act requires both new knowledge and an authorisation, the plan must address both. The diagnosis thus avoids prescribing training for a mandate problem or overlooking a real training need.

Each intervention specifies the target condition or capability, the acts concerned, the proposed change, who authorises and who implements, the collaborators needed, the prerequisites, the deadline and the expected state. The latter is a hypothesis to be verified. Dependencies establish which activities must precede others; among interventions that are simultaneously feasible, priority also takes into account expected impact, urgency, sustainability and uncertainty. Ordering by dependencies, however, does not remove the need to choose where to invest.

The Context Pact summarises the plan in an agreement readable by the parties. It includes the objective, verification criteria, conditions the organisation undertakes to put in place, contributions of the person or team, and questions still open. Brevity is a usability choice, not a scientific constraint on the number of commitments. Signing formalises the agreement, although it does not demonstrate that the conditions are already available or that the interventions will work.

The verification plan distinguishes implementation of the intervention, accessibility of the condition, exercise of the act, proximal result and any impact. If learning is of interest, it also provides for tests comparable over time. Follow-up at three and six months is a practical cadence that can be adapted according to the organisation and/or the mandate; critical deadlines may require earlier checks. Each review retains the initial situation, the changes and the unconfirmed hypotheses.

5. Versatility and adaptation to domains

5.1 Training and workplace learning

In the field of training, the RPM model applies across the entire life cycle of the intervention: ex ante, during delivery and in the subsequent phase of transfer to the job. Before the course, it helps bring out the expected operational acts and map the contextual conditions needed for their

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implementation. During training, it guides the design of authentic tasks, exercises and support activities that build the necessary competences. Finally, in the post-training phase, RPM offers a diagnostic key for discriminating between an actual learning deficit, a lack of organisational opportunities or the emergence of frictions in application.

Contextual diagnosis guides the redefinition of content and teaching methods. Where the participant needs to activate collaborations without hierarchical authority, exercises focusing on negotiation and on formulating proposals will be needed; where performance requires specific information bases, practice should faithfully model their characteristics; in the absence of an actual assignment, a real opportunity for application should be negotiated ex ante. These options are design levers to be activated according to the results of the diagnosis, not prescriptive constraints for every intervention.

Training can also strengthen the individual's ability to decode the context, voice needs, negotiate room for manoeuvre, consolidate alliances or bring structural constraints to light. However, this strategic dimension must not turn an organisational limit into an individual responsibility: developing negotiation skills, while appropriate, does not make up for denied access, a contradictory mandate or the lack of a real activity on which to practise.

5.2 Recruitment and professional onboarding

In recruitment, the question concerns both the relevant capabilities and the conditions within which the new role will have to operate. RPM can support the definition of the position, the analysis of expectations and the onboarding plan. Examination of the repertoire remains the task of appropriate tools, such as work samples and analysis of experience. The matrix does not replace such tools and is not a test for ranking candidates.

The specific contribution of RPM is to make visible the **necessary organisational commitments**: access, interlocutors, decision-making latitude, time to learn the domain and success criteria. A diagnosis may show that the role was designed with responsibilities exceeding the authority granted. It may also show that the onboarding pathway must develop capabilities not yet documented. The outcome is a work configuration to be discussed, not a judgement on the person's adaptability to any existing condition.

5.3 Team composition and development

For teams, the availability of competences in individuals does not guarantee that they can be coordinated. The matrix must specify the actors of the acts, the hand-offs and the dependencies: who produces an analysis, who interprets it, who decides and who implements. It may be necessary to complement individual matrices with a representation of joint acts. Collective competence is not obtained by summing the members' classifications.

The adaptation considers complementarity, accessibility of others' expertise and conditions for collaboration. Edmondson's (1999) study of psychological safety links the perceived possibility of taking interpersonal risks to learning behaviours in teams. For RPM, this offers a reference for choosing relevant observables, such as the ways in which questions or error reports are received. It does not authorise inferring psychological safety from a single episode, nor replacing a validated measure with a cell of the matrix.

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The use of RPM in team composition is, in this paper, a design extension. It requires specific testing, especially regarding the distribution of action across several people and the variability of conditions over time.

5.4 Innovation and organisational change

In innovation projects, the expected impact very often depends on exploratory acts, such as formulating a hypothesis, developing a prototype, gathering empirical feedback or proposing a go/no-go decision. Relevant conditions include access to semantic capital, willingness to collaborate, criteria for validating evidence and the actual room for modifying the solution. Within this frame, the framework helps make explicit the tension between what the organisation asks to transform and the conditions that make that change concretely possible.

Innovative action, in turn, can change the context: experimentation can generate new evidence and legitimise strategic decisions, while codifying a shared procedure can ease subsequent test cycles. Such transformations should be traced along a rigorous time sequence, keeping the analysis open to alternative explanations of the change observed.

Table 4: Adaptations of the framework

Domain	**Diagnostic question**	**Adaptation required**	**Operational output**
Training	Under what conditions will what has been learned be usable?	Distinguish initial, expected and subsequently observed capabilities	Training design and agreement on opportunities for application
Recruitment and onboarding	Does the role allow the acts for which the person is being brought in?	Check repertoire, mandate and familiarisation time	Onboarding plan and role conditions
Teams	Can distributed capabilities contribute to joint acts?	Identify actors, dependencies and hand-offs	Role configuration and collaboration agreements
Innovation	What conditions make it possible to explore and implement change?	Distinguish experimentation, decision and adoption	Plan of experiments and enabling conditions

Adaptability does not equal universal validity. Changing domain requires re-examining the observables and checking whether the lenses retain descriptive power. Application costs may also vary. A small business may need a few well-documented conditions; a complex organisation may require separate analyses by unit and decision-making level.

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6. Illustrative cases

6.1 Nature, function and limits of the material

The following three cases serve different methodological functions and should not be treated as a single empirical corpus. Case A applies RPM ex ante to a real professional onboarding assignment; Case B reconstructs ex post a real professional mandate that was interrupted; Case C applies RPM to a training programme aimed at a group of employees of a manufacturing company. Names and organisations are pseudonymised.

The cases serve to test the consistency of use of the tools, the ability of the framework to keep acts, conditions, sources and interventions separate, and its adaptability to different questions. They do not constitute a predictive validation, a controlled experiment or a series of comparable cases. In Case A, the information base comes from a single position; in Case B the sources are more varied but the reconstruction took place after the professional's departure and lacks a complete detailed chronology; in Case C, sources, documents and degrees of evidence derive from applying the framework to the training programme delivered.

The counts produced by the tool may describe the internal configuration of a case, but they are not scores, do not measure the quality of the person or the organisation and do not allow quantitative comparisons between cases.

6.2 Case A - ex ante onboarding of an external marketing manager

Case A concerns a small company selling gas and energy to businesses and resellers, with twelve employees, which entrusts an external consultant with a twelve-month marketing manager assignment. The analysis was set up before the start and takes as its unit the individual initiative, from proposal to implementation. The target action is to propose, get approved and implement a marketing initiative within the useful window, with a quality criterion requiring approval without rework for regulatory reasons and implementation on schedule.

The LoA provides for nine observables. The initial log contains seventeen pieces of evidence: twelve testimonies, two explicit inferences and three unknowns, all attributable to the client's position. This asymmetry limits the strength of the diagnosis: the consultant's repertoire is reported, not directly verified, and the case does not yet meet the perspective coverage across person, decision-maker and collaborators required by the framework.

The reconstructed configuration combines five main conditions: marketing is interpreted mainly in terms of sales; visibility does not yet have indicators; the reseller channel, which accounts for around 60% of turnover, depends on personal relationships; every material and every expense requires the managing director's approval; the regulatory requirements for offers and materials have not yet been translated into an operational checklist. The October renewal peak mainly modulates the cost of centralised approval.

Breaking the work down into acts changes the diagnosis. Writing a proposal in the “language of sales” may remain feasible, albeit with friction; publishing materials or putting a tool into use depends on approvals and access; adapting the first material to the sector, by contrast, presents an expected impediment until the regulatory requirements are made accessible or a competent

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review is arranged. With the evidence available, no documented impediment emerges: several relationships remain unknown and must become questions to be resolved, not assumptions to be filled in for the sake of narrative coherence.

Table 5: Examples of moving from condition to action in Case A

Condition	**Act concerned**	**Cautious reading**	**Proposed intervention**
Every material approved by the managing director; budget on request	Publish materials; put tools into use	Repeated friction, not automatic impediment	Approval fast lane for renewals; after the first review, possible delegated spending threshold
Regulatory constraints without an operational checklist	Adapt and publish the first material	Expected impediment until a reliable compliance route is in place	List of requirements and competent contact person before the first material
Access to resellers, data and response times not yet known	Set up channels; activate CRM or trial system	Not assessable due to missing information	Explicit access, introduction to a key reseller, recorded response times

The methodological value of the case is above all ex ante. The departure of a previous marketing manager is treated as information to be contextualised, while the centralisation of approvals is assessed in relation to the acts and timeframes considered. The analysis produces verifiable entry conditions: written success criterion, compliance route, access, relationship with resellers, approval times and, subsequently, spending latitude.

6.3 Case B - interrupted mandate and consistency between responsibility and authority

Case B concerns a refrigeration and air-conditioning company of around seventy people that entrusts a project manager with a one-year full-time assignment to map processes and introduce automations based on artificial intelligence. The mandate ends after six months with the professional's resignation. The analysis therefore concerns only the observed stretch and cannot treat as “failed” a phase that may have been planned for the second half of the year.

The reconstruction considers the decision-maker, the professional and people who worked alongside the project. The basis includes converging testimonies collected separately on the centralisation of approvals, but much of the evidence remains retrospective and without precise dates.

The main conditions are: a very strong sales orientation; requests outside the assignment and competing priorities; validation of the mapping concentrated in a single moment; every initiative

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submitted to the CEO, without an operational autonomy threshold; dependence on a software house for changes to the CRM; good direct collaboration with many salespeople, with greater resistance on technical and digital issues.

The diagnosis changes shape when the "project management" function is analysed by breaking it down into distinct acts. While planning, proposing and flagging issues were in fact feasible, albeit at high organisational cost, the power to set priorities and project boundaries did not in practice belong to the project manager, even though it was an indispensable prerequisite for exercising the mandate. Within the reconstructed scope, this misalignment is the relationship best supported by the available evidence for diagnosing an impediment to a specific act. By contrast, direct work with the sales network is a clear example of an enabling condition. Finally, the design of automations remains not assessable, both because of the unobserved part of the mandate and because of the lack of data and information on the original plan.

Table 6: Diagnostic distinctions in Case B

Element	**What can be claimed**	**What cannot be claimed**
Decision-making authority	The centralisation of decisions made the act of deciding priorities and boundaries unavailable to the project manager within the reconstructed scope	That every hierarchical approval constituted a block or that the whole role could not be exercised
Interrupted mandate	The first six months can be analysed as the observed stretch	That the automation phase failed or that the annual objectives had already been definitively missed
Resignation	Frustration is a reported outcome to be considered in the reconstruction	That governance was the sole cause of the resignation or that the resignation demonstrates the person's inadequacy

For a subsequent mandate, RPM translates the diagnosis into entry conditions: written decision rights, boundaries of the assignment, step-by-step validations with response times, early involvement of the software house and a plan for the data needed. The case shows why the match between responsibility and authority must be verified at the level of the act and the time window, without attributing the outcome either solely to the person or generically to "the context".

6.4 Case C - Application to training design

Case C concerns the ex ante application of RPM to a project management training programme for eight employees from five departments of a manufacturing company. The training programme comprises ten days of project management. The methodological objective is to test the framework on three typical training problems: differences in repertoire within the group, dependence on the organisation's managers and the need to create real opportunities for application.

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The unit of analysis is the group, linked to a real project per participant or per pair. The repertoire is represented as a distribution, for example through the number of participants who have already written a plan or led a group, without turning the matrix into a ranking of individuals. Conditions are also differentiated by sub-group when the five department heads behave differently. Testimonies from the same department are not automatically counted as independent sources.

The analysis found that project work was perceived, within the company, as an additional activity; the annual appraisal did not recognise it; the budget covered the course but not the time for application; that every activity outside one's department required the head's authorisation; that only three real projects were available for eight participants; and that the end of the course coincided with a peak in orders. The context also includes a positive condition: the purchasing manager already frees up half a day a week, creating an internal benchmark that is useful for designing the other departments.

The distinction between acts belonging to the learners themselves and acts that require the approval of other people involved is decisive. The course can help strengthen the ability to draft a plan, lead a group, carry out a review and prepare the final report. It cannot, however, assign a real project, grant people's time, confer the right to change priorities or ensure that lessons learned are used by other departments. In the case analysed, for the five participants without a project an impediment to producing a real plan is expected; the decision to change timeframes or priorities remains with the department heads. Other relationships remain unknown because they depend on actual response times during the peak.

Table 7: Diagnostic chain in Case C

Condition in the case	**Act to be made possible**	**Diagnostic hypothesis**	**Intervention and verification**
No real project for 5 of 8 participants	Write the plan for a real project	Missing prerequisite: expected impediment for those participants	Assign a real project before the course; check the plan produced and the project start
Every activity outside the department requires the head's authorisation	Agree on people and decide changes to timeframes/priorities	The course does not create the decision right; the effect depends on the mandate assigned	Define a decision threshold and escalation path before application
Application time not agreed; peak in orders after the course	Carry out periodic reviews and obtain people's time	Accessibility of time to be verified; the peak may amplify friction	Protected hours per department; record actual hours and response times

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Condition in the case	Act to be made possible	Diagnostic hypothesis	Intervention and verification
Project work not recognised in appraisal	Sustain the contribution and disseminate lessons	Possible priority conflict to be verified	Introduce explicit recognition criteria; observe continuity and use of lessons

The Intervention Plan for the case includes: a project for each participant, protected hours, a decision threshold, a kick-off meeting with the five heads, a shared method and tool, and recognition of project work. The application thus shows how RPM can shift design from the "course" alone to the application system.

6.5 Comparative reading of the three cases

Table 8: Methodological function and inferential limits of the cases

Aspect	Case A	Case B	Case C
Mode of use	Ex ante on a real assignment	Ex post on a real interrupted mandate	Ex ante in the training domain
Unit	One person and individual marketing initiatives	One person and individual steps of the mandate	Group of 8 and application projects
Information base	Preliminary and single-perspective	Multi-perspective but retrospective and temporally incomplete	Prospective and based on evidence collected during the training programme
Most informative diagnosis	Centralisation = mainly friction; sector rules = expected impediment	Responsibility > authority for the act of deciding priorities and boundaries	Capabilities trainable by the course separated from conditions requiring managers and the organisation
Operational output	Entry conditions and items to be clarified	Conditions for a subsequent mandate	Training design + organisational agreements for application

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Aspect	Case A	Case B	Case C
Inference to avoid	Predicting the person's success or fit	Causally attributing the resignation or lack of automation to governance	Attributing to RPM the effectiveness of interventions or the outcomes observed without a causal or comparative design

The comparison brings out four properties that the framework aims to make operational. First, the effect belongs to the **condition × act** relationship: centralised authorisation does not have the same meaning in all cases and does not affect "competence" as a whole. Frictions are analytically distinct from impediments: a condition may increase costs and time without making the act impossible. Unknowns remain visible and become objects of verification. Finally, time often modulates conditions already present: an approval process that is sustainable in an ordinary period may become critical close to a deadline or during an operational peak.

The comparison is illustrative in purpose and clarifies the type of information the framework aims to produce, as well as showing how its versatility depends on a stable architecture rather than on a fixed catalogue of competences or conditions.

7. Trainers and innovators as architects of contexts

The expression "architect of contexts" describes an extension of design responsibility. Trainers and innovators are called upon to link the development of capabilities to the conditions of their exercise. Designing relevant content remains necessary; added to this is the task of building, together with the actors concerned, concrete opportunities in which to learn, act and contribute to the desired impact.

In practice, context architecture consists of concrete decisions: assigning an authentic task, ensuring access to information, negotiating time, making a collaboration available, clarifying decision-making latitude and building useful feedback. The metaphor does not imply that the professional controls the organisation. A trainer may identify a necessary condition without having the authority to grant it; their contribution also consists in making it explicit and open to discussion, identifying who is responsible for it and clarifying the consequences of its absence.

This role also concerns the person who is learning or innovating. Development may include the ability to read the situation, recognise possibilities for action, formulate requests and negotiate conditions. The person thus takes part in transforming the context. Support must nonetheless avoid translating every constraint into a demand for individual adaptation: negotiation skills do not replace denied access or a contradictory mandate.

The desired impact should be agreed and subjected to scrutiny. Who benefits from the change? Who bears the burden? What costs become invisible if one looks only at final performance? In a training project, achieving a result by having participants systematically work overtime does not

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demonstrate that an adequate context has been created. RPM should make these effects visible alongside the expected benefits.

Design concerns an arrangement that can concretely be changed within the organisation's constraints. Some conditions are bound by rules, resources or non-negotiable choices. In such cases, the course of action can be modified, the objective scaled down or the unfeasibility of the mandate made explicit. This, too, is a useful conclusion, provided it is grounded in evidence and shared with the people involved.

8. Limitations and validation programme

8.1 What remains to be demonstrated

The framework does not yet have sufficient evidence on the validity of its categories, the reliability of coding, the costs of use and the effectiveness of interventions. Flexibility in the selection of competences favours local relevance but reduces comparability if the criteria and reasons for choices are not documented.

The cases make it possible to examine procedural consistency and to generate hypotheses; their design does not support inferences on predictive validity, inter-rater reliability, effectiveness of interventions or transferability to groups.

Traceability of reasoning does not, in itself, provide causal evidence. Claiming that a condition prevented an act requires verifying prerequisites, timeframes and alternatives. Claiming that an intervention produced a result requires a further design. The examples presented do not offer that level of proof. For the dissemination of reconstructions, the methodological dossier must also document authorisations, protection of testimonies and separation between professional use and research use; this paper does not attest to procedures that the available materials do not document.

The counts generated by the platform also call for caution. The number of frictions, conditions or unknown cells depends on the level of breakdown chosen and on the scope of the analysis. An increase or decrease in the count may result from a new coding rule or a different granularity, not from a substantive change in the context. For this reason, RPM does not use such counts as an overall index.

8.2 Next steps

The first phase should test the comprehensibility and coverage of the framework with trainers, organisational managers, workers and researchers. Favourable cases are needed as well as problematic ones, examples in which the difficulty depends mainly on the repertoire, and situations in which a condition has different effects on different people or acts. Missing observables, overlaps between lenses and the time required for the analysis should be recorded.

The second phase should use independent double coding on a common corpus, retaining the initial assessments before comparison. Agreement should be examined separately for selection of acts, definition of conditions, effect, modifiability and status of the conclusion. An overall

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measure could conceal important divergences; inter-rater agreement alone, in any case, does not prove that the diagnosis is correct.

The third phase should prospectively follow interventions defined before the outcome. The sequence between modified condition, actual accessibility, action and result needs to be observed, while also looking for contrary evidence. For training, measures of learning distinct from use on the job are added. A particularly informative pilot would be a continuing training programme in which, before the course, the expected acts, the necessary organisational conditions and the verification plan are predefined; after the course, learning, accessibility of conditions, actualisation of acts and proximal results would be measured separately.

The fourth phase should compare the usefulness of RPM with a simpler diagnosis, given the same information and, where possible, the same time available. Criteria may include the relevance of recommendations, the identification of prerequisites, the recognition of uncertainties, feasibility, application time and usefulness as perceived from the different perspectives involved. In the training domain, the comparison could be made with a traditional training needs analysis that does not include conditions of exercise in a structured way. The comparison would make it possible to assess whether the greater complexity of RPM yields a relevant diagnostic benefit.

In parallel, the transferability of the model presupposes testing it in different sectors and organisational contexts. In this light, the extension of the analysis to team contexts must be assessed in its own right, without presuming that the properties of an individual diagnosis remain unchanged at the collective level.

8.3 Possible quantitative developments

A future quantitative programme should be guided by defined questions and constructs, regardless of the availability of countable codes. Multilevel models could be relevant if the design included episodes, people and organisations with sufficient numbers and variability. Latent classes could explore recurring profiles of suitably constructed indicators. The choice requires a sampling framework, an assessment of statistical requirements and appropriate measurement instruments.

There are no plans to sum diagnostic labels directly or to automatically turn the seven lenses into scales. A statistical association or interaction would be compatible with a relational reading, but would not on its own demonstrate the theoretical thesis. The priority remains to verify whether different analysts can produce auditable diagnoses and whether such diagnoses improve decisions and the conditions for action.

9. Conclusions

Competence is not an exclusive property of the person: its exercise requires a workable relationship between repertoire, task and the conditions of the situation. RPM proposes examining this relationship through circumscribed acts, traceable evidence and interventions with defined responsibilities. The diagnosis includes the possibility of developing capabilities, changing conditions or redesigning the mandate.

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The specific contribution of RPM concerns the decision architecture that makes auditable the step from a desired impact to the necessary acts, from observed conditions to diagnostic hypotheses, and from these to interventions and checks. The framework takes as established in the literature the relevance of context and complements tools dedicated to competence assessment. It remains to be demonstrated whether this architecture produces more relevant, transparent and actionable decisions than simpler practices.

The versatility of the framework stems from the distinction between a stable architecture and adaptable content. The three applications illustrate different modes of use: ex ante design of a professional assignment, ex post reconstruction of an interrupted mandate and ex ante design of the transfer conditions of a training programme. The applications are illustrative in function and make visible the inferences the method allows and their limits.

For trainers and innovators, the proposal is to also take on the task of architect of contexts: designing, with people and with the organisation, the conditions in which capabilities can become action and contribute to a shared impact. In the training domain, this means pairing the design of learning with the design of the opportunities for application, the decision-making latitude, the relationships and the timeframes that make its use possible. The value of RPM will depend on its ability to make this work more precise, transparent and verifiable.

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