

Conducting Mixed Methods Research in Leadership Research

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Part 1:

What is mixed methods research?



Paradigm

a set of common beliefs (a 'worldview') shared between scientists about how problems should be understood



Why should we be concerned about paradigms?



Paradigms represent competing worldviews that are '**incommensurate**':

- Paradigms are said to be **so different** that in most cases researchers belonging to different camps could not find even a *common language* in which to conduct a meaningful comparison.

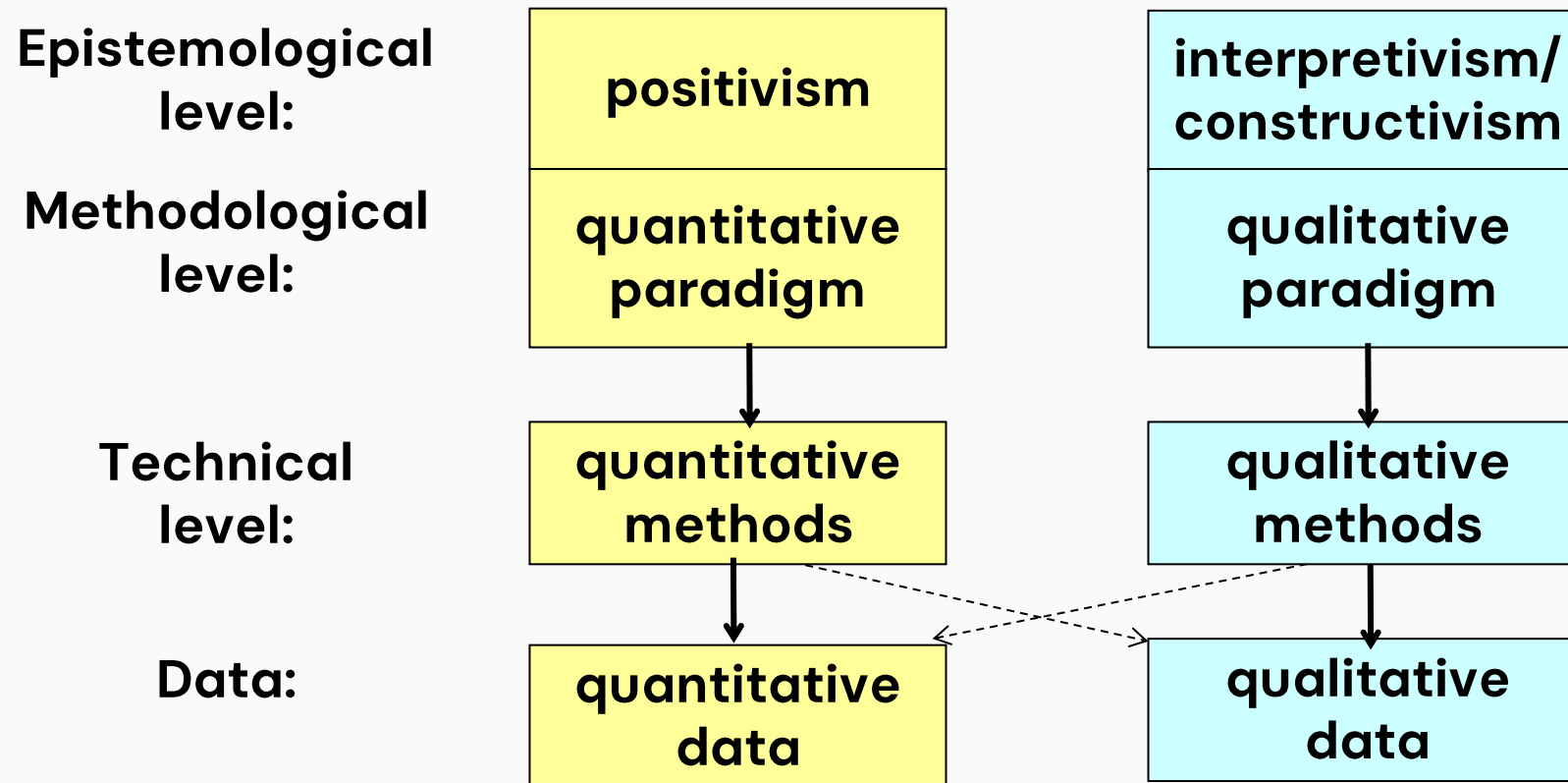
Paradigm Wars



These arguments are extended beyond **ontology** and **epistemology** to research **methodologies** to suggest they are 'incompatible'.

- *Quantitative*: reliability and objectivity ('what')
- *Qualitative*: validity in the 'thick description' and 'subjectivity' ('why' & 'how')

Different levels of research as seen by the 'paradigm warriors'



A disturbing feature of the paradigm wars has been the **relentless focus on the differences** between the two orientations.

Indeed, the two dominant research paradigms have resulted in two research cultures, “one professing the **superiority of deep, rich observational data**’ and the other the virtues of **‘hard, generalizable’** data.

(Sieber, 1973, p. 1335; cited in Johnson & Onwuegbuzie, 2004: 14)

Paradigm Wars

What is the “danger” for educational research?





Research programs that grow out of one perspective only tend to “illuminate some part of the field . . . while ignoring the rest . . . and that . . . [t]he danger for any field of social science or educational research lies in its potential corruption (or worse, trivialisation) by **a single paradigmatic view**” (Shulman, 1986, p. 4).

The Third Research Paradigm

The goal of mixed methods research is not to replace either of these approaches but rather to **draw from the strengths** and minimize the weaknesses of both in single research studies and across studies.

If you visualize **a continuum** with qualitative research anchored at one pole and quantitative research anchored at the other, mixed methods research covers **the large set of points in the middle area**.

If one prefers to think categorically, mixed methods research sits in **a new third chair**, with qualitative research sitting on the left side and quantitative research sitting on the right side. (Johnson and Onwuegbuzie, 2004: 14–5)

What is mixed methods research?



Mixed methods research

... is formally defined here as the class of research where the researcher **mixes** or **combines** quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study. (Johnson and Onwuegbuzie, 2004: 17)



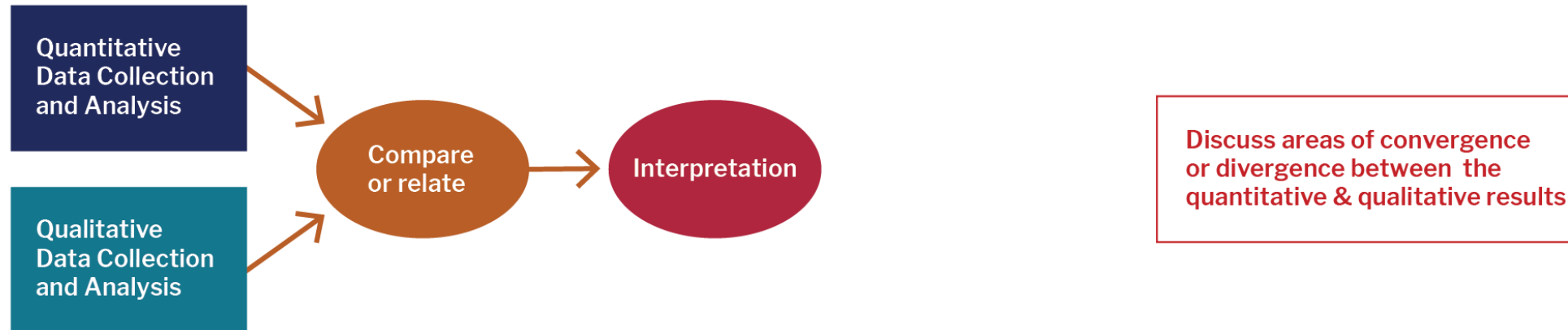
Integrated methodology



... is a “**third way**” for researchers, which “moves **beyond technical questions** about mixing or combining methods” and beyond combinations of quantitative and qualitative research **techniques** for pragmatic purposes (Morgan, 2007).

BASIC MIXED METHODS RESEARCH DESIGNS

Convergent Parallel Design



Explanatory Sequential Design



Exploratory Sequential Design



Data Transformation



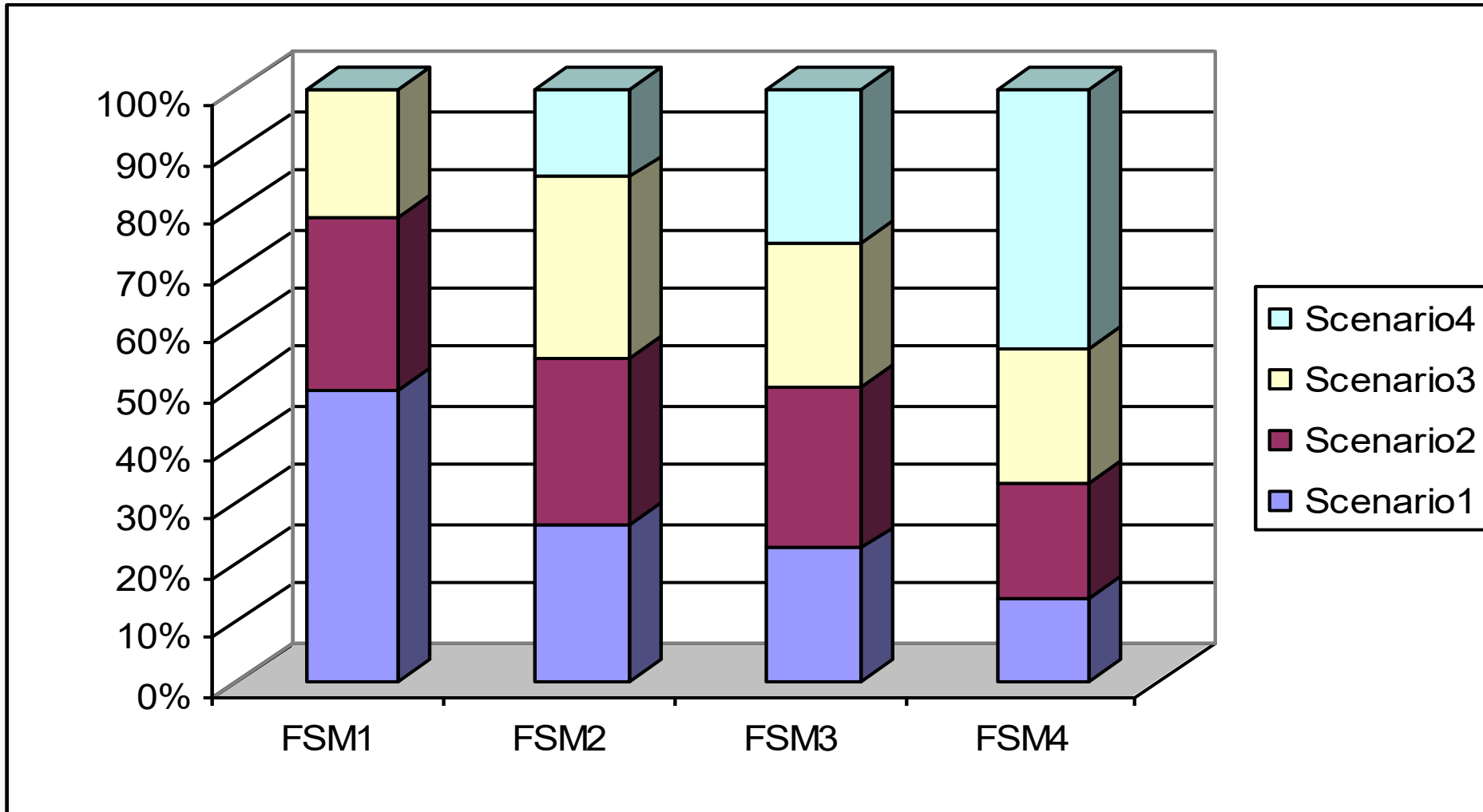
Qualitized data: collected quantitative data types are converted into narratives that can be analysed qualitatively

Quantitized data: collected qualitative data types are converted into numerical codes that can be statistically analysed

(Miles and Huberman, 1994)

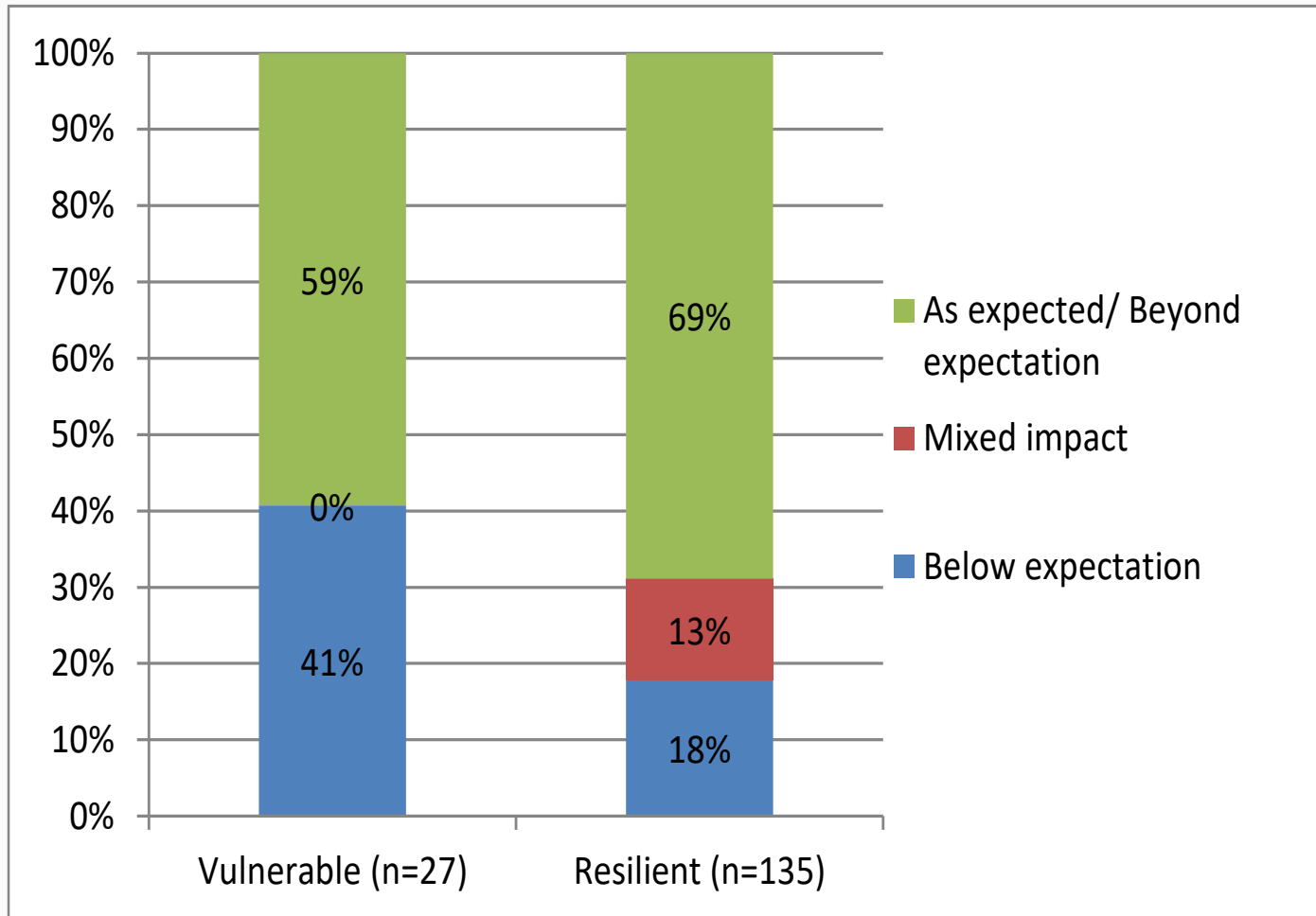
School contexts by teachers' identity scenarios

(VITAE Project: Variation in teachers' work, lives and effectiveness; Day & Gu, 2010, 2014)



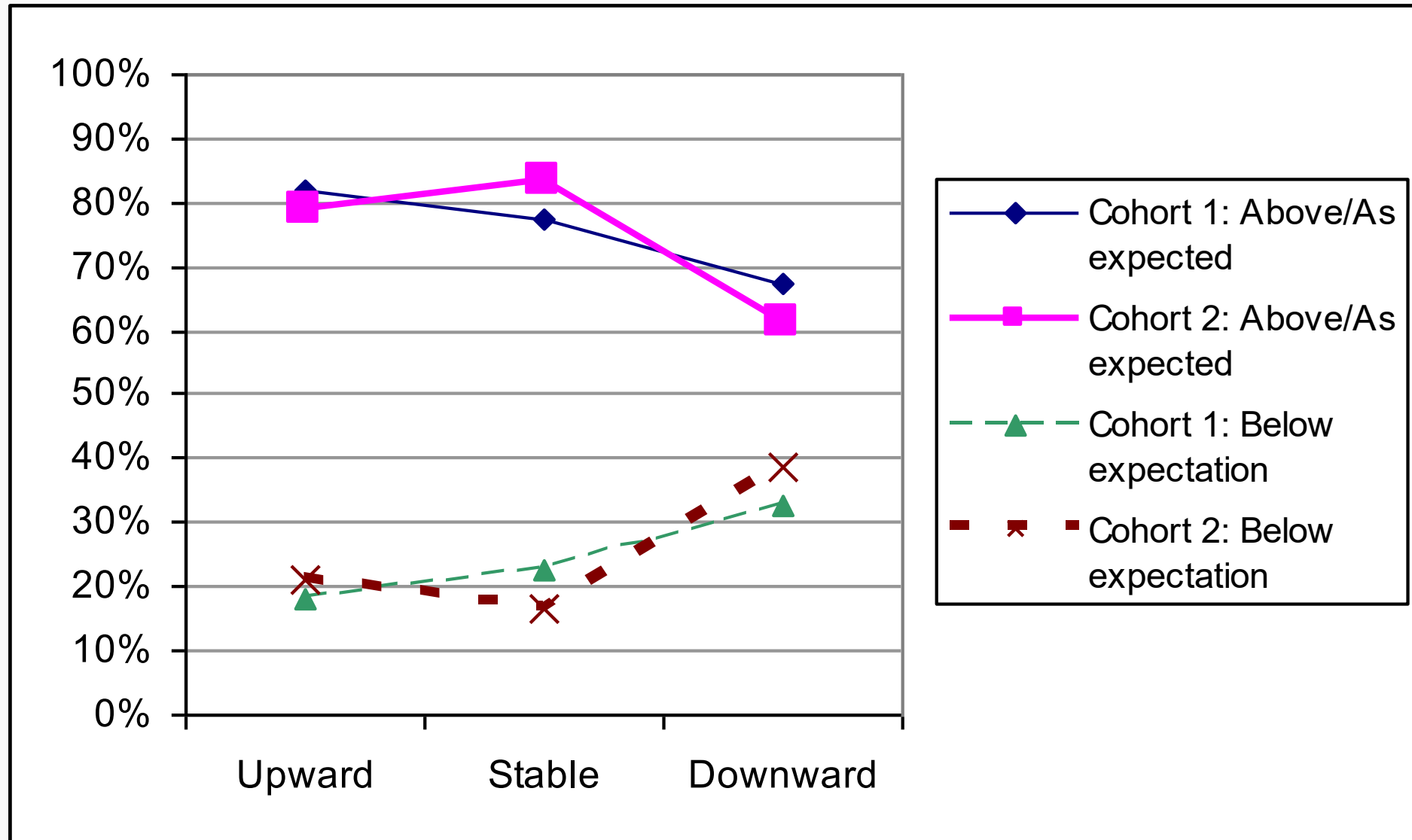
Students are entitled to ...

Committed and resilient teachers



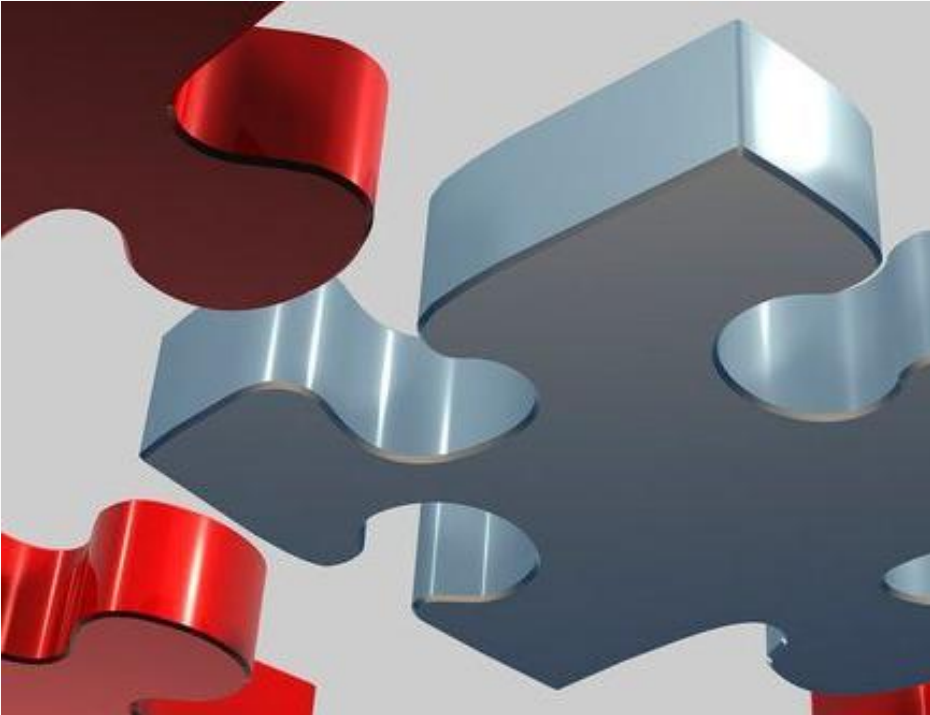
(Day, Sammons and Gu, 2008)

Associations between commitment and effectiveness



(Day, Sammons and Gu, 2008)

Conceptual Strengths



Conceptual and synergistic
integration:

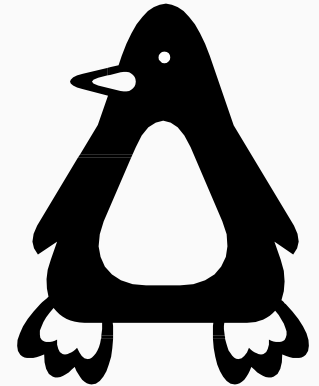
- Offer a more holistic, more nuanced and more synergistic account of the researched phenomena

(Day, Sammons and Gu, 2008: 341)

Triangulation

... the combination of different methods ... is less a strategy for validating results ... than an alternative to validation which increases **scope, depth and consistency**.

(Flick, 2002, p. 227)



Superiority to single approach designs

Mixed methods research:

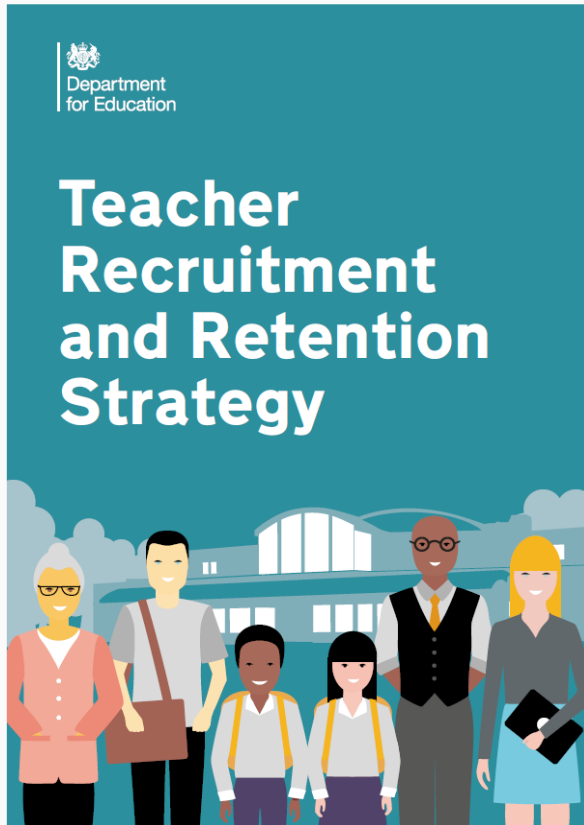
- Can answer research questions that the other methodologies cannot;
- Provides better (stronger) inferences;
- Provides the opportunity for presenting a greater diversity of divergent views.

(Teddlie and Tashakkori, 2003)

Part 2:

The Leadership that Inspires **Collective Mind:** Where Teachers Thrive and Stay





The “Golden Thread”

- Initial Teacher Education
- Induction programme for early career teachers: Early Career Framework (ECF)
- National Professional Qualifications (NPQs) for teachers and school leaders



The Research

- Research is an integral part of the UCL-led ECF and NPQ programmes.
- We use **annual surveys** and **interviews** to track participants over time and investigate:
 - **Who** the intended leavers, movers and stayers are over time.
 - **The extent to which** and **how** their experiences on the ECF programme have influenced their professional dispositions and qualities, **how effective** they are as teachers, and **why** they intend to leave or stay.



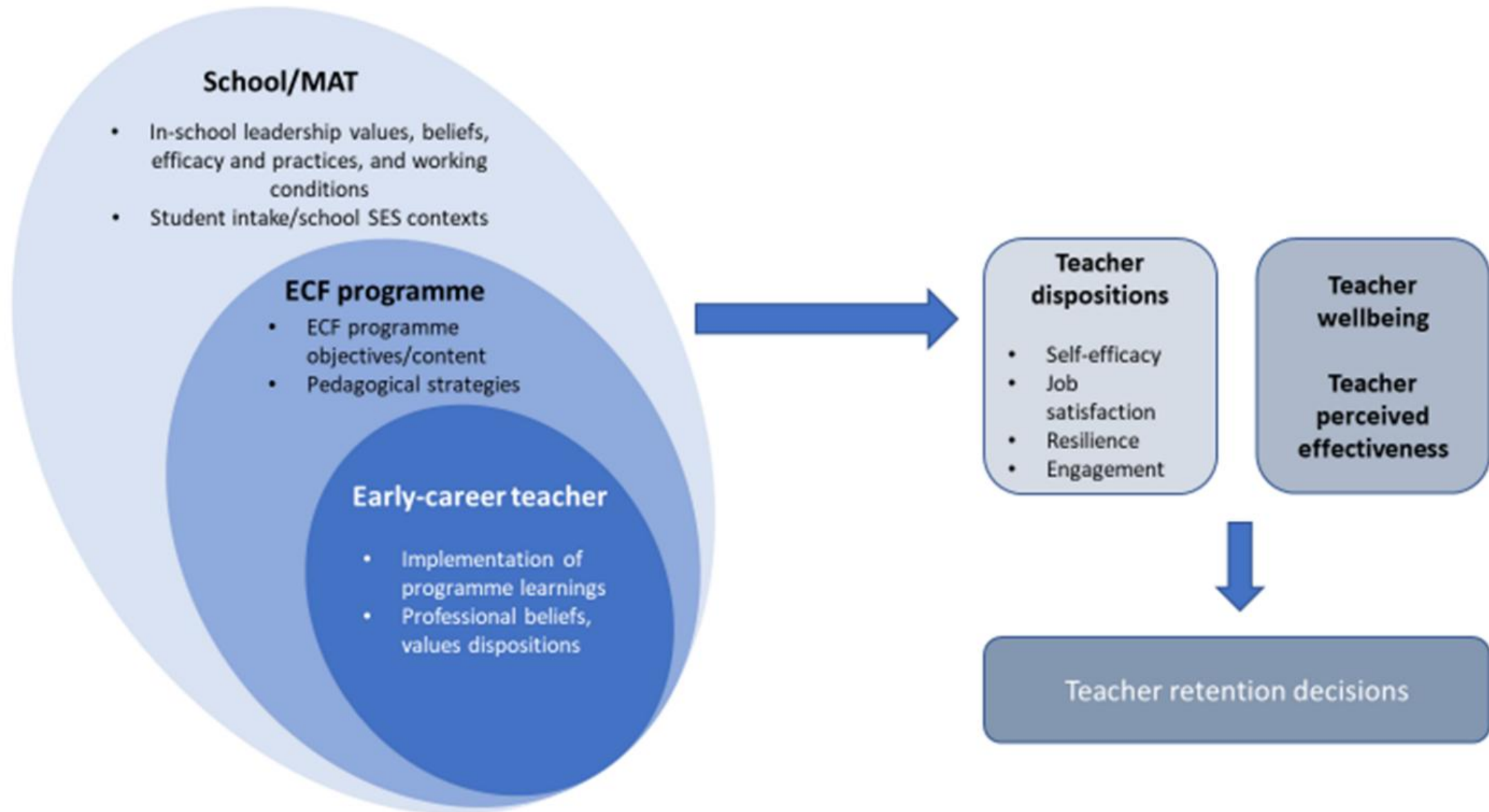
Research Questions:

RQ.1: What have been the **impact** of early career teachers, mentors, and school leaders' learning on the ECF/NPQ programmes on their learning and retention decisions?

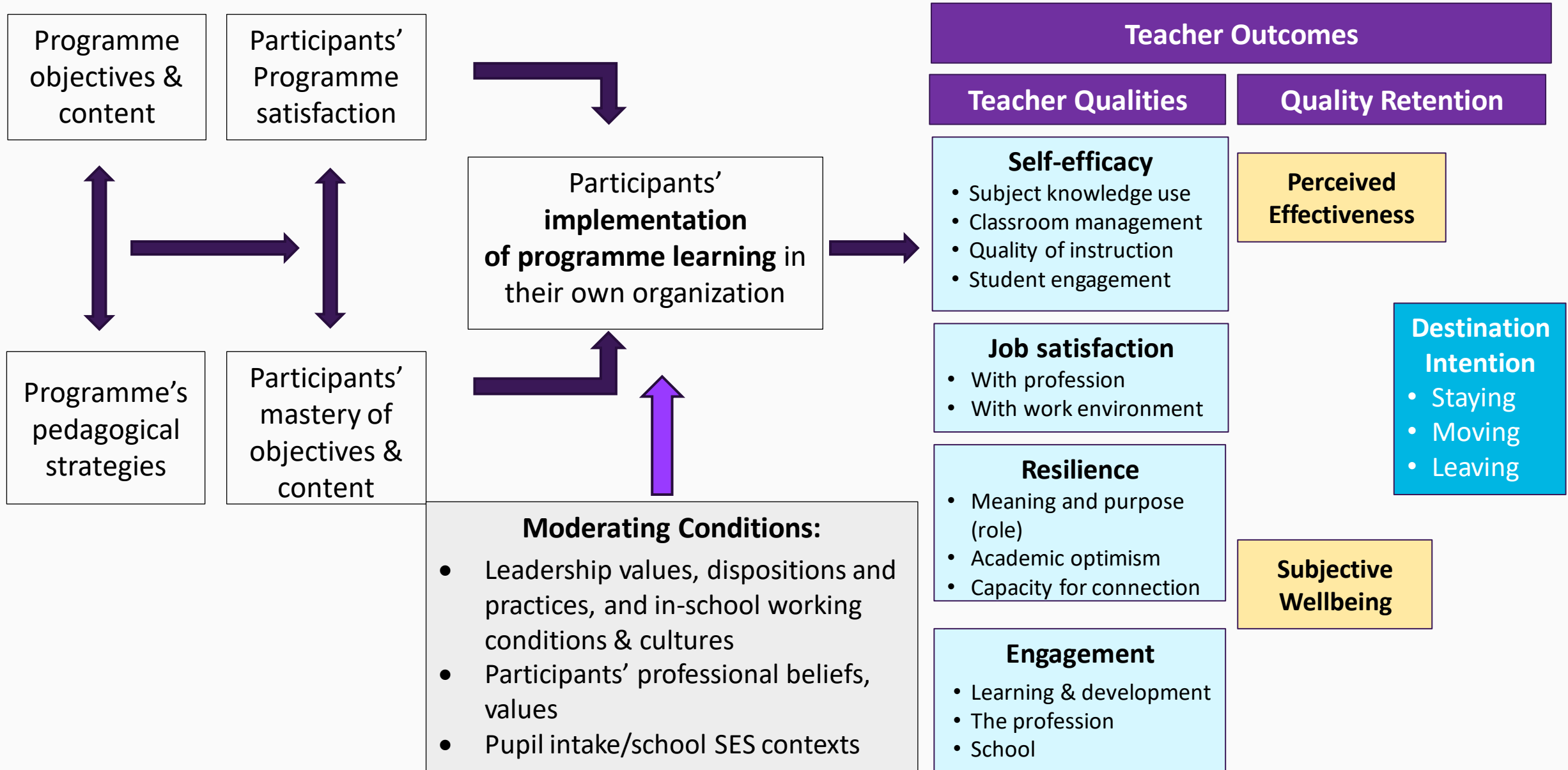
RQ.2: What are the **main factors** leading to their decision to stay?

RQ.3: How does **school leadership** impact – *if at all* – on their learning on ECF/NPQs and retention?





The Conceptual Design



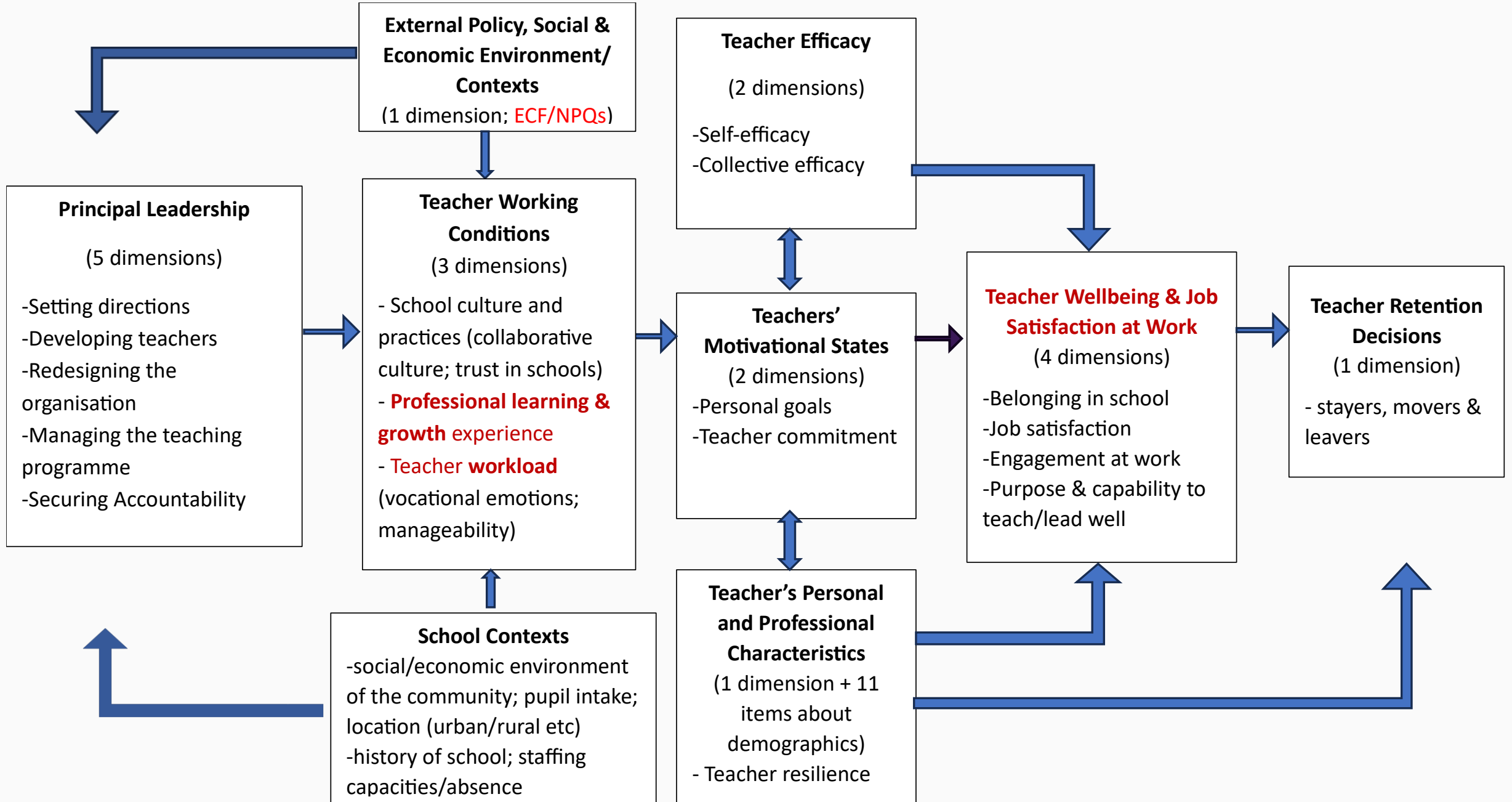
Reframing Teachers' Career Decisions

Social Cognitive Career Theory (SCCT) (Lent et al., 2002) to frame the reported evidence on teacher retention:

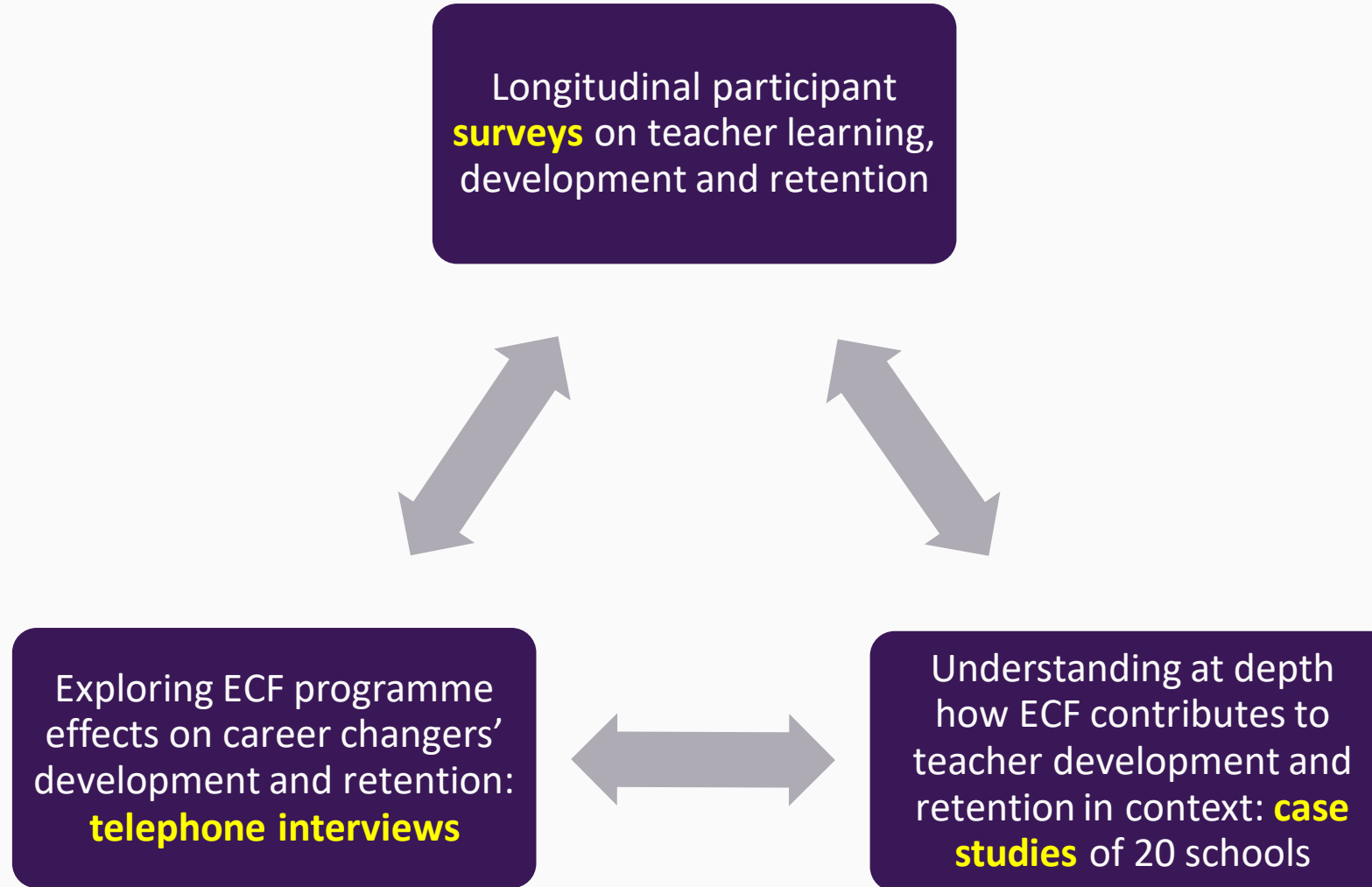
- Better understanding **conditions** – in terms of both *objective* and *perceived* environmental factors – that facilitate or limit the exercise of human agency in career development (Lent & Brown, 2019)
- Theoretical roots to *social cognitive* rather than *social learning* theory: strong conceptual focus upon better understanding the social, cultural, and economic **conditions** that shape the learning opportunities to which individuals are exposed and the **specific cognitive, self-regulatory, and motivational mediators** through which learning experiences influence their career choices

SCCT has been extended to consider other theories and research about **employee turnover** (Peterson & Seligman, 2004), **teachers' work, lives and effectiveness** (e.g. Day & Gu, 2010, 2014), and **school leadership and improvement** (e.g. Day, Gu & Sammons, 2016; Gu, 2023; Leithwood, 2022).

ED-SCCT: Education focused SCCT



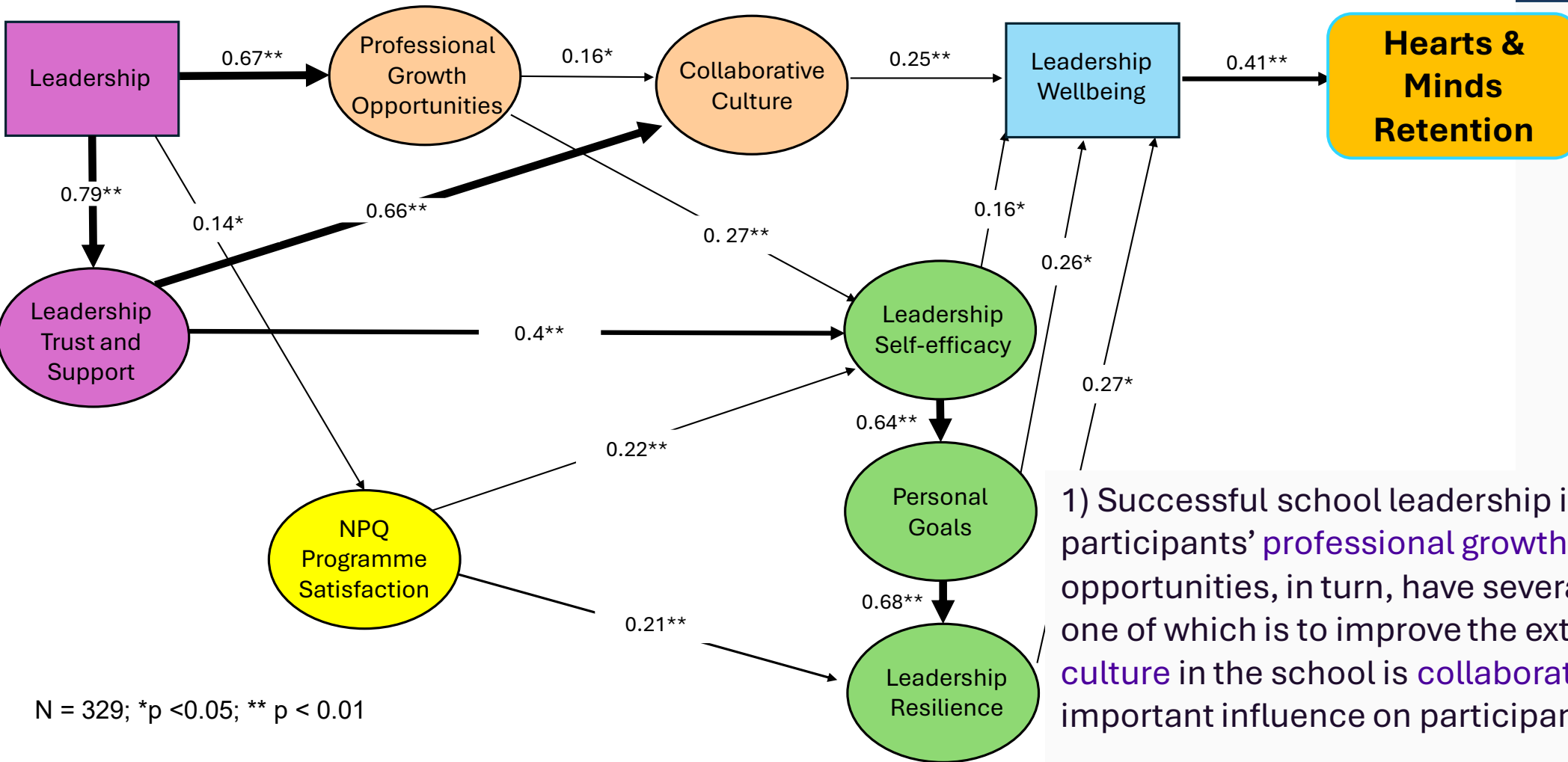
How ...



The Research Evidence:

Two Examples of How Leadership Makes a
Difference to Professional Learning in Schools





N = 329; *p < 0.05; ** p < 0.01

Model fit indices: CFI (.912), TLI (.904), and RMSEA (.062)

1) Successful school leadership improves participants' professional growth opportunities. Those opportunities, in turn, have several different effects, one of which is to improve the extent to which the culture in the school is collaborative, which is an important influence on participants' wellbeing.

2) When participants view their leaders as trustworthy and supportive, both their self-efficacy and desire to collaborate with colleagues are increased.

3) NPQ programme satisfaction contributes to participants' resilience and self-efficacy as leaders.

Case Study: Using Teacher Induction Programme and National Professional Qualifications (NPQs) for school leaders to advance **inclusive collaboration**



This primary school's success is the result of intentional leadership actions that build a reflective culture, inclusive collaboration, and inquiry-led professional learning.

How Does the Headteacher Make a Difference?

- Leading through **presence**
- Scaffolding **trust** to create professional **autonomy** and **ownership**
 - *“We’re clear about the **principles**, but how that looks in the classroom is for them to decide,”* ensuring that professional judgement operates within collective norms.
- Positioning **wellbeing** as a **leadership responsibility**
 - *“a supported and supportive staff is a happy, productive and committed staff*
- Embedding **inclusive collaboration** through leadership structures
 - through broaden participation in decision-making and curriculum planning
- **Reflective inquiry** as a way of working – entitlement & expectation



How Teacher Induction programme has been used to **support professional growth and connection**

1. Mentoring as support and connection

- Mentoring is fully embedded within the school's culture rather than positioned as a standalone role for designated individuals.
- Supporting, coaching and developing others is normalised, reflected in one colleague's observation:

“I was mentored and now mentor others. It's a ripple effect of leadership.” (ECT Mentor)

How NPQ programmes have been used to **enhance reflective inquiry**

2. Aligning NPQ learning to serve school improvement

To strategically **grow leadership capacity**:

- **Implementation projects** are aligned to strategic priorities, including curriculum consistency, wellbeing and rights-based practice;
- Leaders are expected to **apply** learning directly to their areas of responsibility.

*We're **building a real expertise** across the school which can only enhance (children's) learning. (Headteacher)*



So What?

The human capital ‘solution’ to developing teachers is *off the mark*.





The environments in which teaching and learning take place will continue to change and, if they are to sustain their capacities to teach to their best, teachers will have to learn to **live new lives**.

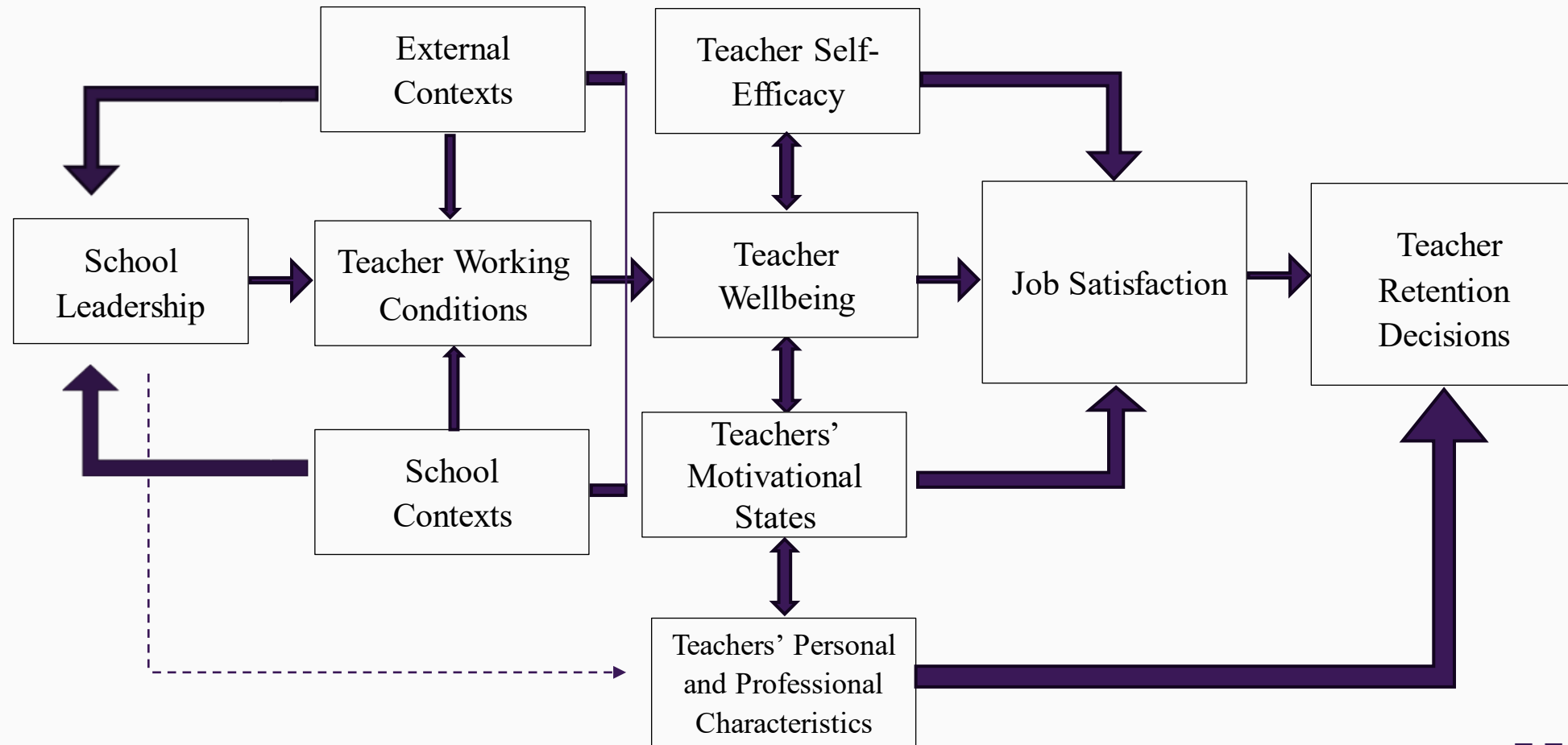
(Day & Gu, 2010)

The school organisation – *where teachers learn to live their new lives*.

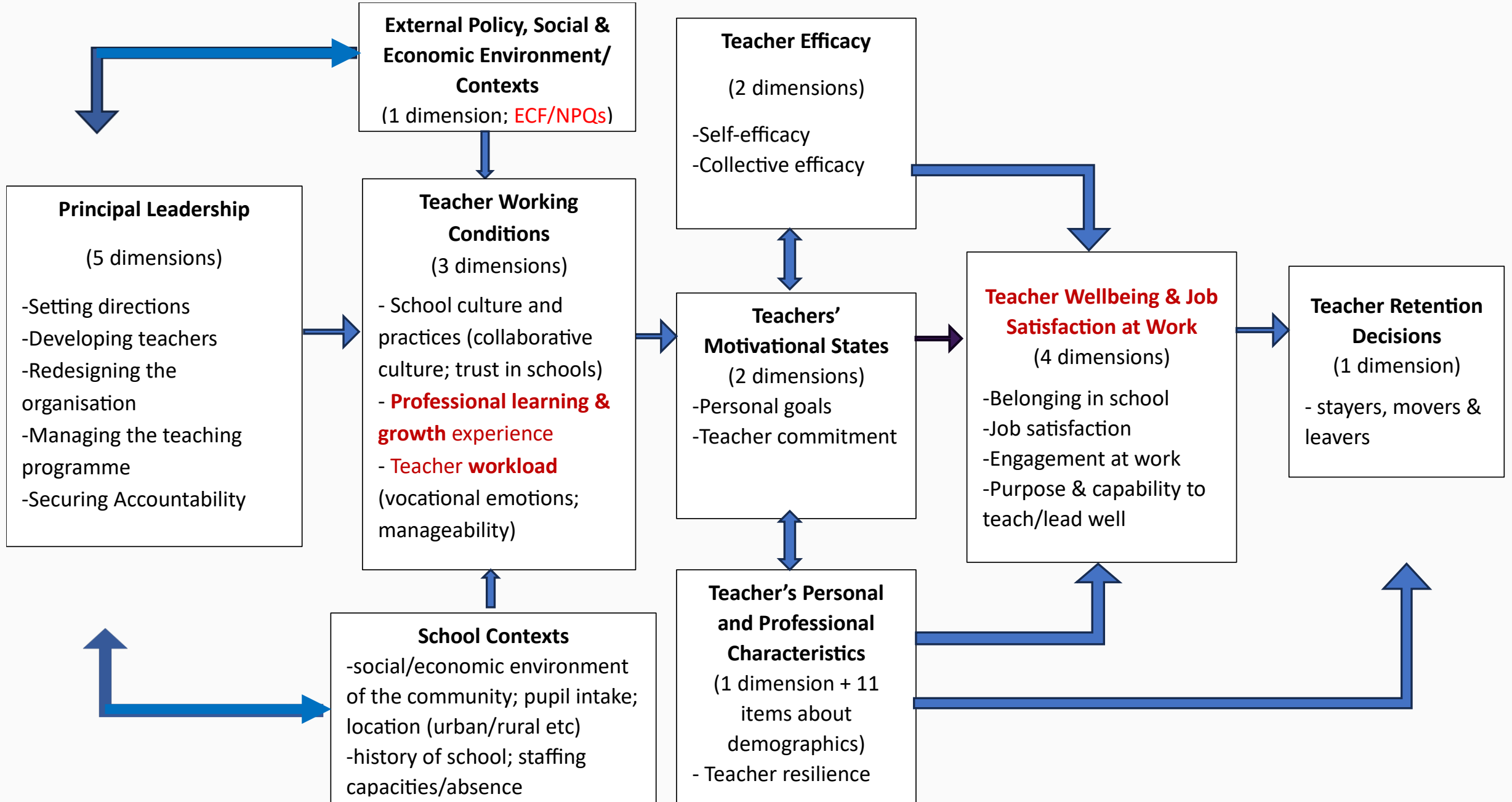


ED-SCCT: A School-Oriented Explanation of Teachers' Retention Decisions

(Leithwood, Gu, & Eleftheriadou, in press)



ED-SCCT: Education focused SCCT



Misconception

Superiority of Mixed Methods:

Not all stations justify the use of mixed methods.

(Creswell & Plano Clark, 2011: 7)



Multi-method Strategy

... the use of multiple methods with **complementary strengths** and **different weaknesses** in relation to a given set of research problems.

But these criteria don't imply that one must always employ a mix of qualitative and quantitative methods in each project.

This may sometimes be the case, but some research problems might be better served by combining two different types of quantitative methods or of qualitative methods.

(Hunter and Brewer, 2003: 578)

