Teacher expertise around the world: Is there an expert teacher prototype?



Jason Anderson, University of Warwick, UK

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Plan for the talk

Discussion 1: Good teaching

- Choosing a measure of teacher quality 'expertise'
- 2. Identifying expert teachers
- Summarising prior research on expert teachers the 'Northern' prototype
- 4. What's missing from this dataset?
- 5. Researching 'Southern' teacher expertise

Discussion 2: Expert teachers in Bolivia

- 6. What makes expert teachers expert
- 7. References, comments and questions

Slides available online at end!

A: What's the new teacher like?

B: She's very good actually...

A: How was your lesson?

B: Not so good)

A: Oh dear! What happened?

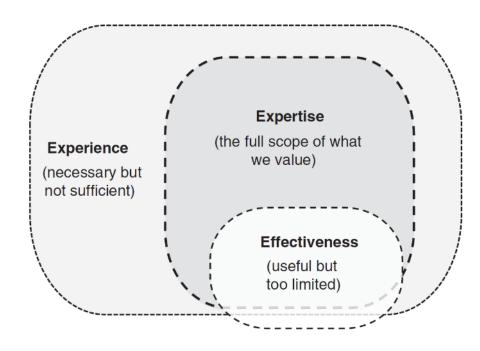
A: I'm not sure what to do in my conversation class today.

B: Try this activity. It's really good!

Discussion A: What do you mean when you use the word 'good' in reference to teachers and teaching?

Teacher 'expertise' as a measure of teacher quality

- 'Experience' is necessary but not sufficient
- 'Effectiveness' tends to focus solely on 'impact' on student achievement (i.e., exam performance)
- 'Expertise' requires experience and can include effectiveness, but isn't limited to it
- Expertise is able to encapsulate everything we value in teachers (it is a holistic measure) and to be context-specific (it has high ecological validity)
- The term is familiar in a wide range of fields and associated with professional competence



The 'fuzzy' relationship between teacher experience, teacher expertise and teacher effectiveness (Figure 2.1 from Anderson, 2023b)

A context-sensitive definition of teacher expertise

Teacher expertise is an enacted amalgam of learnt, contextspecific competencies (i.e., embodied knowledge, skills and awareness) that is valued within an educational community as a source of appropriate practice for others to learn from.

(Anderson, 2023b, p. 29)

- Expertise, so defined, is accessible to all, not elitist
- · Expert teachers aren't superhumans or 'outstanding'
- They are those teachers who have achieved appropriate professional competence of the kind that we'd like to see throughout our educational systems

How do you find 'expert' teachers?

- Diverse criteria are used in different studies.
- Learner 'achievement' (e.g. exam results) is part of this but teacher expertise is more than just getting students thru exams
- Other studies use recommendation from inspectors or school leaders, senior roles (e.g., teacher trainers, mentors) and advanced qualifications
- Some studies use multiple criteria, as recommended in the literature (Anderson, 2023b; Palmer et al., 2005)
- Expert teacher studies investigate either specific aspects of their practice or cognition, or offer more holistic insights into the teachers themselves

Bringing together research on expert teachers

- Hundreds of studies of expert teachers have been conducted.
- We (myself and Gulden Taner) wanted to bring this research together to update the 'expert teacher prototype' proposed by Sternberg and Horvath (1995).
- But the research is varied: Qualitative case studies, observational studies, quantitative analyses of behaviours or cognition, etc.
- How can this research be brought together to present a clear, reliable portrait of teacher expertise?

'Metasummary' as a solution

 Originates in healthcare (see, e.g., Sandelowski & Barroso, 2007; Sandelowski et al., 2007). Less well known in education (Anderson, forthcoming).

Procedure:

- Researchers independently read and code findings from all research papers in a dataset
- These codings are compared to identify, count and discuss (QUAL & QUAN) important findings
- Our study (Anderson & Taner, 2023) aimed to identify the salient findings of teacher expertise research since its inception (c. 1983).

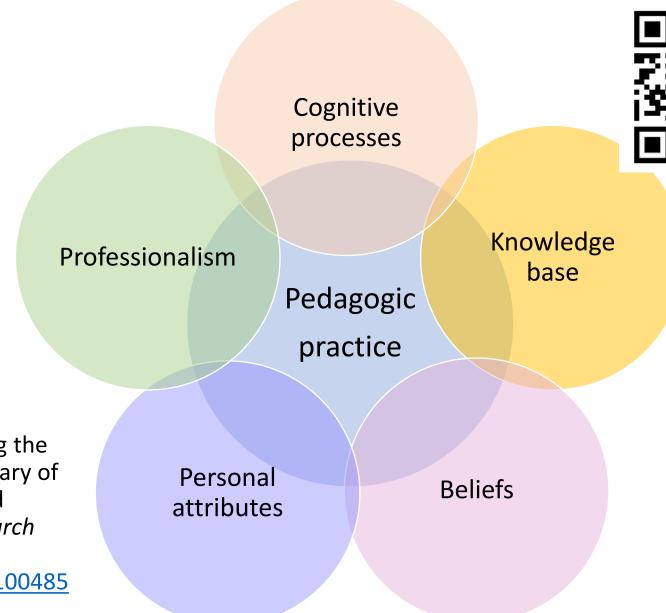
Studies included

- 106 studies met inclusion criteria
- 1124 teachers involved
- Publication range from 1983 to 2021
- Primary and secondary teachers (government & private education)
- 5+ years experience
- All subjects
- International... **but** strong bias for US (59%) and Western countries (>80%)

Table 2 Descriptive statistics.

	n	96
Total number of reports	106	100%
Level		
Primary/Elementary	31	29%
Secondary	66	62%
Including both levels	8	8%
Unclear	1	1%
Methodology		
Qualitative	83	78%
Quantitative	13	12%
Mixed methods	10	9%
Subject area		
Varied	23	22%
General (elementary level)	10	9%
Maths	25	24%
Science	10	9%
Foreign/second language	8	8%
Physical education	8	8%
Language arts	7	7%
Special education	4	4%
History	3	3%
Music	3	3%
Art	1	1%
Geography	1	1%
Religious education	1	1%
Social studies	1	1%
Unspecified	1	1%
National context		
USA	63	59%
China	9	8%
UK	5	5%
Taiwan	4	4%
Australia	3	3%
Germany	3	3%
Israel	3	3%
Netherlands	3	3%
Estonia	2	2%
Hong Kong	2	2%
India	2	2%
Malaysia	2	2%
Others, incl. 'Varied' (1 report each)	5	5%
Expert teachers (total)	1124	
Yearspan (1983–2021)	39	

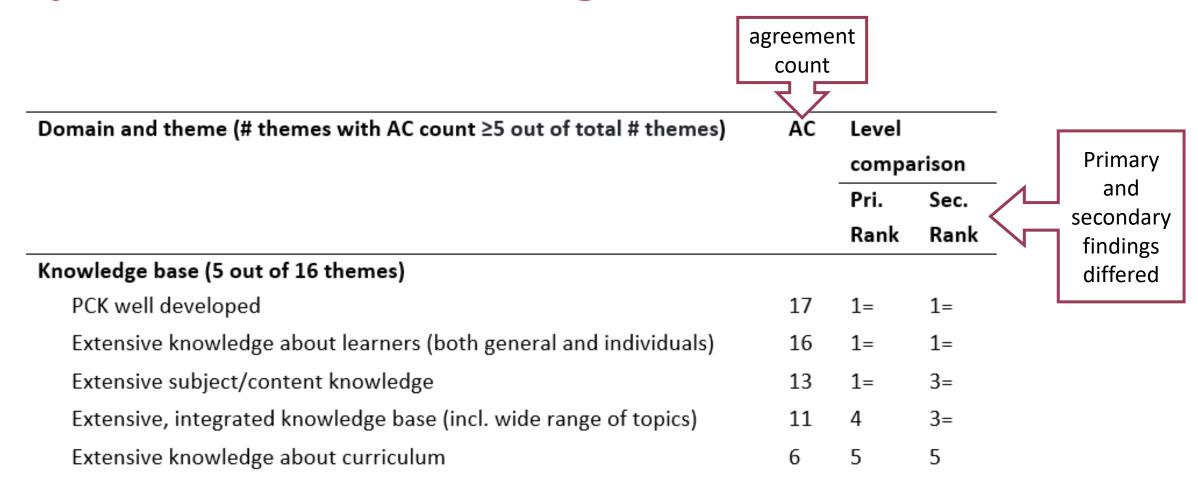
Our findings: 6 domains of teacher expertise



Anderson, J., & Taner, G. (2023). Building the expert teacher prototype: A metasummary of teacher expertise studies in primary and secondary education. *Educational Research Review*, 38, 100485.

https://doi.org/10.1016/j.edurev.2022.100485

Expert teacher knowledge base



PCK = pedagogical content knowledge

Expert teacher cognitive processes

main and theme (# themes with AC count ≥5 out of total # themes)		Level	
		compa	rison
		Pri.	Sec.
		Rank	Rank
Cognitive processes (6 out of 14 themes)			
High awareness of what's happening in class	12	1	1
Extensive and automated cognitive processes/heuristics (teaching or	8	2=	4=
planning)			
Primary concern with student learning/on-task behaviour	6	4=	2=
Able to make informed decisions in class	6	4=	4=
Regularly engages in progressive/experimental problem solving	6	-	2=
Able to predict potential problems	5	2=	6=

Expert teacher beliefs

Domain and theme (# themes with AC count ≥5 out of total # themes)	and theme (# themes with AC count ≥5 out of total # themes) AC		Level	
		comparison		
		Pri.	Sec.	
		Rank	Rank	
Beliefs (8 out of 32 themes)				
Relationships/rapport as important	9	4=	1=	
Treating Ls as individuals with diverse needs & backgrounds	7	2=	3=	
Belief in constructivism (or aspects of, esp. non tabula rasa, Ls	7	1	6=	
construct own knowledge)				
A sense of moral duty or mission towards Ls	6	4=	3=	
Engaging Ls as important	6	-	1=	
Facilitating development of Ls as human beings/future citizens (social	5	2=	10=	
responsibility)				
Having high expectations/setting high challenges for Ls	5	-	3=	
Accepting primary responsibility for learning	5	-	10=	

• Ls = learners

Expert teacher personal attributes

Domain and theme (# themes with AC count ≥5 out of total # themes)		Level	
		compa	rison
		Pri.	Sec.
		Rank	Rank
Personal attributes (5 out of 13 themes)			
Passion for profession/work as teacher	12	4=	1=
Care for/love their learners	12	1	3=
Positive self-image/self-confidence/self-efficacy/identity	12	4=	1=
Strong desire to succeed/ambitious/motivated	8	2=	5
Resilience (and persistence)	8	4=	3=

Expert teacher professionalism

Domain and theme (# themes with AC count ≥5 out of total # themes)	AC	Level	
	-	comparison	
		Pri.	Sec.
		Rank	Rank
Reflects extensively	21	1	1
Continuous/lifelong learners/striving to improve	16	2=	3=
Helps colleagues as T educator (incl. mentoring, informal peer support)	16	2=	3=
Dedicated/hard working/committed	14	4=	3=
Collaboration, PLCs, CoPs important	13	6=	3=
Reflects critically (e.g., self-questioning, problematising practice)	13	6=	2
Leaders (either in school and locally or more widely)	10	-	7
Interest in CPD/INSET/in-service qualifications	6	4=	10
Share resources/ideas with colleagues regularly	6	6=	9
Challenges self incl. through experiments, risks, innovation (incl. PPS)	6	-	8

[•] T = teacher; PLC = professional learning community; CoP = community of practice; PPS = progressive problem solving

Domain and theme (# themes with AC count ≥5 out of total # themes)	AC	Level	
		compa	rison
		Pri.	Sec.
		Rank	Rank
Pedagogic practice (39 out of 89 themes)			
Displays flexibility/improvises when teaching (adaptive expertise)	20	1=	1=
Engages learners through practices/content/activities/ strategies	17	8=	1=
Links learning to/builds learning on learners' lives and schemata	17	1=	3
Scaffolds learning effectively	15	4=	4=
Has clear routines and procedures	14	1=	8=
Continually assessing throughout lesson/dynamic assessment	13	4=	11=
Considers Ls' needs when planning (both group and individuals)	12	14=	4=
Creates positive, supportive learning environments	12	14=	6=
Make regular use of collaborative/cooperative learning (pair &	12	8=	6=
groupwork)			
Develops HOTS (incl. creativity and critical thinking)	10	7	17=
Careful planning (as either mental or written process)	9	22=	11=
Monitors learners (circulating) during activities	9	8=	17=
Develops Ls' study skills/autonomy/metacognition	9	4=	35=
Differentiation provided according to Ls' needs, interests or challenges	9	14=	11=
Provides one-to-one tutoring/personalised support (e.g., when	9	8=	17=
monitoring)			
Reflects interactively	8	35=	8=
Develops close meaningful relationships with Ls	8	-	8=
Develops Ls' understanding	8	14=	17=
Formative assessment is central to practice	8	22=	11=
Adapts core curriculum materials (e.g., textbook)	7	8=	35=

Expert teacher pedagogic practices

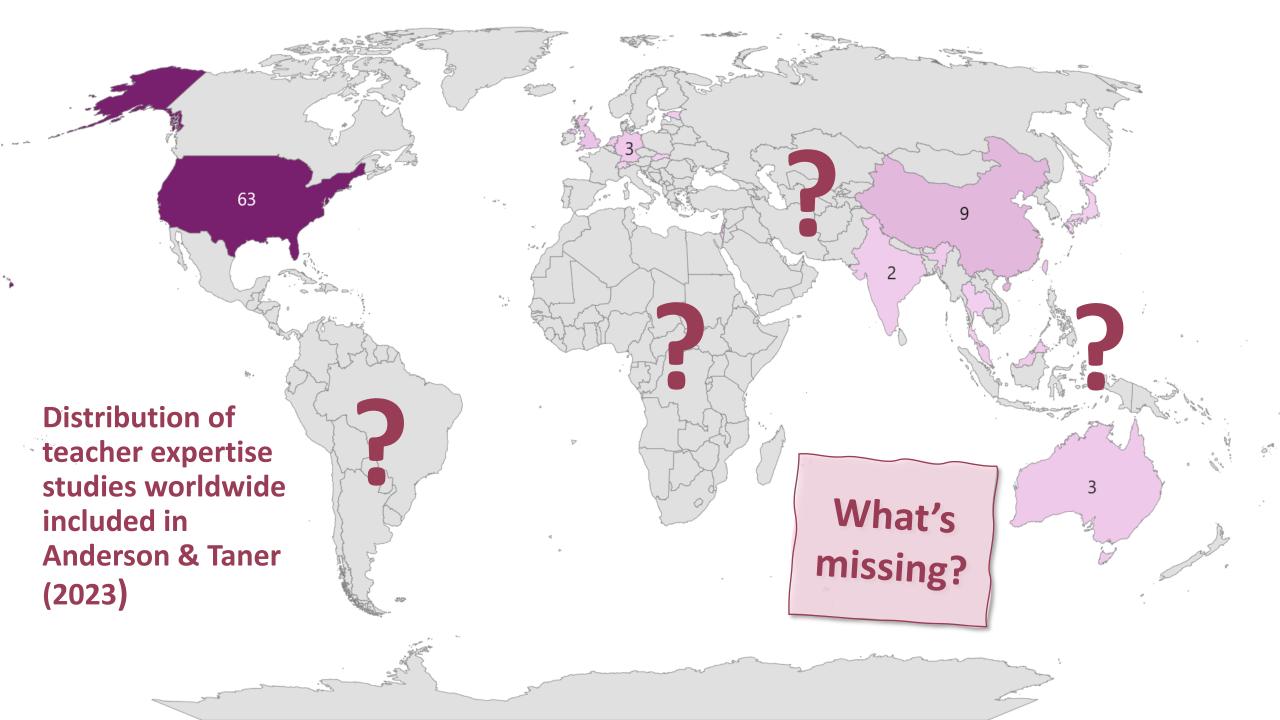
Domain and theme (# themes with AC count ≥5 out of total # themes)		Level	
		compa	rison
		Pri.	Sec.
		Rank	Rank
(continued)			
Can anticipate and prevent potential disturbances	7	22=	17=
Cultivates mutual respect/trust	7	35=	11=
Makes use of inductive (e.g., problem-based/discovery) learning	7	14=	23=
Peer tutoring encouraged (incl. peer teaching/correction /feedback/ support)	7	8=	35=
Teacher talk/communication (dialogic interaction, verbal ability) is appropriate	7	14=	35=
Assessment of prior knowledge precedes new instruction	7	14=	23=
Develops own materials/resources/activities	6	22=	23=
Provides developmentally appropriate activities/tasks/instruction	6	22=	23=
Shows sensitivity towards emotional environment of classroom	6	35=	17=
Lesson is made enjoyable for Ls (e.g., humour, fun activities)	6	-	11=
Balances T-led (e.g., WCT) and learner-centred (e.g., activities) lesson phases	6	35=	23=
Provides qualitative feedback to learners on their work	6	35=	23=
Considers long-term objectives when planning	5	14=	58=
Plans flexibly and contingently	5	-	23=
Cohesion/links between learning activities support(s) learning	5	35=	23=
High time on task	5	35=	23=
Wide range of strategies to convey content (evidence of PCK)	5	22=	35=
Use of independent activities (seatwork or groupwork)	5	35=	23=
Teacher questioning of Ls varied	5	22=	35=

Limitations and cautions

- 1. Primary and secondary only
- 2. The 74 themes are only an initial "sketch"
- 3. The prototype should <u>not</u> be seen as a 'checklist' of dos and don'ts
- 4. Absent practices are not necessarily bad practice

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Hong Kong	What's	2%
India	vvnarc	2% 2%
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Expert teachers (total)	11124	
Yearspan (1983-2021)	Missimas	
	missing?	
	0 -	



The missing half of the expert teacher prototype

- 1. Only 2 of 106 studies in Anderson & Taner (2023) involved teachers in Global South^a
- 2. Conditions, circumstances and challenges differ greatly both between South and North (e.g. class size, teacher preparation, learner school readiness) (Anderson & Mahapatra, 2024).
- 3. What evidence is there of difference between expert teachers in the South and North?

a. i.e., lower-income countries (bottom 50% as per GDP; World Bank, 2019)



A 'Southern' expert teacher prototype

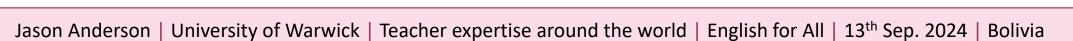
Evidence base:

My PhD study (Anderson, 2021):

- 8 Indian teachers of English, all meeting multiple expertise criteria
- all work in state-sponsored education across India
- I spent 2-5 weeks with each, observing, interviewing (teacher, colleagues, students), understanding them as practitioners (comparative case study approach)

Subsequent monograph (Anderson, 2023b):

- In addition to the above, I drew on:
 - my prior experience and research in 3 low-income countries in Africa (Eritrea, Rwanda, Malawi), 3 in Asia (Bangladesh, Malaysia, Thailand)
 - research on effective teaching in low-income countries.



Areas of similarity and difference between GS and GN

- Knowledge base: strong similarity. 1 difference: large classes necessitate a 'group', rather than 'individual picture' of learners.
- Cognitive processes: very strong similarity, no differences identified.
- **Belief system**: **partial similarity**. Differences include (in South):
 - a) stronger ET (expert teacher) belief in confidence building and reducing 'fear';
 - b) stronger focus on learner understanding of content (vs. HOTS);
 - c) greater multilingual awareness and inclusivity (subject specific?).
- <u>Personal attributes</u>: <u>strong similarity</u>. ETs in South exhibit (*even*) greater resilience and flexibility than those in North.
- Professonalism: strong similarity. ETs in South exploit all CPD opportunities, learn how to develop in isolation.

(Anderson, 2023b, pp. 221-233)

Areas of similarity and difference between GS and GN

- Interpersonal practices: strong similarity. ETs in South prioritise confidence building and learning without fear in relationships with Ls.
- <u>Pedagogic practices</u>: multiple similarities, but many differences. For ETs in South (e.g.s only)...
 - a) lesson planning must be contingent, flexible and selective of curriculum content
 - b) greater need for negotiation with learners
 - c) opportunities for and utility of collaborative learning vary
 - d) learner understanding of content prioritised over higher-order thinking skills
 - e) text mediation strategies often required (often subject specific)
 - f) generic feedback prioritised over individual feedback
 - g) individual feedback provided through 'active monitoring'

(Anderson, 2023b, pp. 221-233)

Discussion B: Your 'expert teacher(s)'

In your opinion, are Bolivian expert teachers closer to:

- A. ...the (primarily) Northern expert teacher prototype identified by Anderson and Taner (2023)?
- B. ...the Southern prototype as discussed by Anderson (2023b)?
- C. ...neither?

Feel free to discuss how, why, etc.



Group vote?

Low tech: 'Clapometer' method



- A. I feel that expert teachers in Bolivia more closely match the 'Northern' expert teacher prototype as identified by Anderson and Taner (2023).
- B. I feel that Bolivian expert teachers have more in common with the 'Southern' expert teacher prototype, as discussed by Anderson (2023b)
- C. I feel that neither applies.

What didn't vary much between all the evidence sources?

- Personal attributes
- Knowledge
- Cognition
- Professionalism

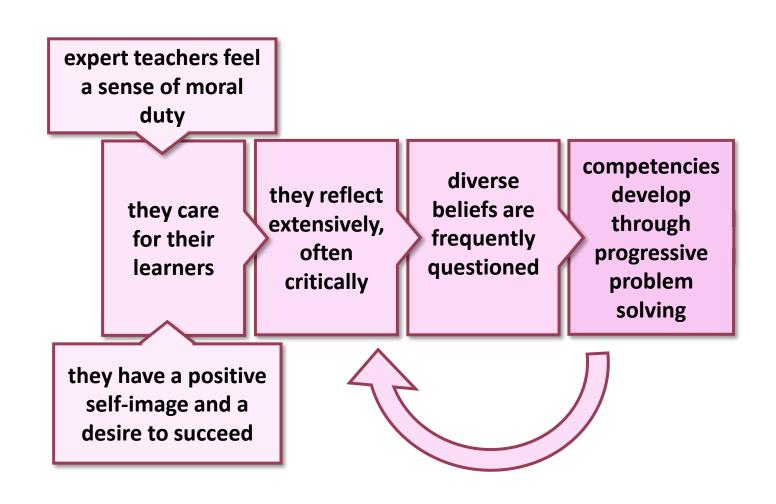
i.e., who an expert teacher is, what they know, how they think and how they develop as professionals.

What makes expert teachers expert?

Extrapolating from Anderson and Taner (2023) and Anderson (2023b).

Figure from Anderson 2023a, p. 51:

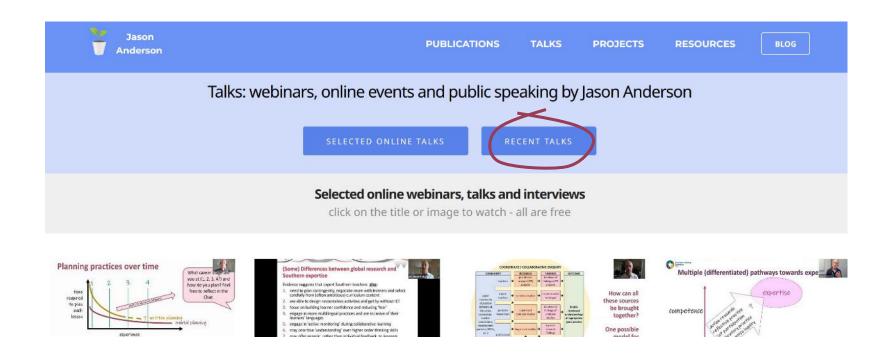






Slides are here

http://www.jasonanderson.org.uk/talks.htm (scroll down to Recent Talks)





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Email: jason.anderson@warwick.ac.uk Twitter: @jasonelt Website: http://www.jasonanderson.org.uk/ Warwick: https://warwick.ac.uk/fac/soc/al/people/anderson/