LEADERSHIP FOR LITERACY

Academic resilience in challenging school contexts

Gabrielle Wills and Heleen Hofmeyr

7 September 2018

UNIVERSITEIT iYUNIVESITHI STELLENBOSCH UNIVERSITY

100

1918 · 2018

E·S·R·C ECONOMIC & SOCIAL RESEARCH COUNCIL

UKaid from the British people

Research jointly supported by the ESRC and DFID

RESEP

Research on Socio-Economic Policy

BACKGROUND

- Strong relationship between socio-economic status (SES) and learning outcomes

BACKGROUND

- Strong relationship between socio-economic status (SES) and learning outcomes
- However, there are always exceptions to this rule – "outlier" learners who manage to achieve results above expectations despite their SES

BACKGROUND

- Strong relationship between socio-economic status (SES) and learning outcomes
- However, there are always exceptions to this rule – "outlier" learners who manage to achieve results above expectations despite their SES
- **Is this also true in SA?**

BACKGROUND

- Strong relationship between socio-economic status (SES) and learning outcomes
- However, there are always exceptions to this rule – "outlier" learners who manage to achieve results above expectations despite their SES
- **Is this also true in SA?**
  - "Outlier schools": even in underperforming schools there are students who achieve unusually good results in reading comprehension relative to their peers (Wills, 2017)

BACKGROUND

- Strong relationship between socio-economic status (SES) and learning outcomes
- However, there are always exceptions to this rule – "outlier" learners who manage to achieve results above expectations despite their SES
- **Is this also true in SA?**
  - "Outlier schools": even in underperforming schools there are students who achieve unusually good results in reading comprehension relative to their peers (Wills, 2017)
- **Are these outlier learners different from their peers in observable ways?**
  - Schools? Families? Individuals?

MOTIVATION

MOTIVATION

- If we want to understand how to disrupt the strong relationship between SES and learning outcomes on average, perhaps a good place to start is the learners who manage to overcome their socio-economic disadvantage to achieve good learning outcomes.

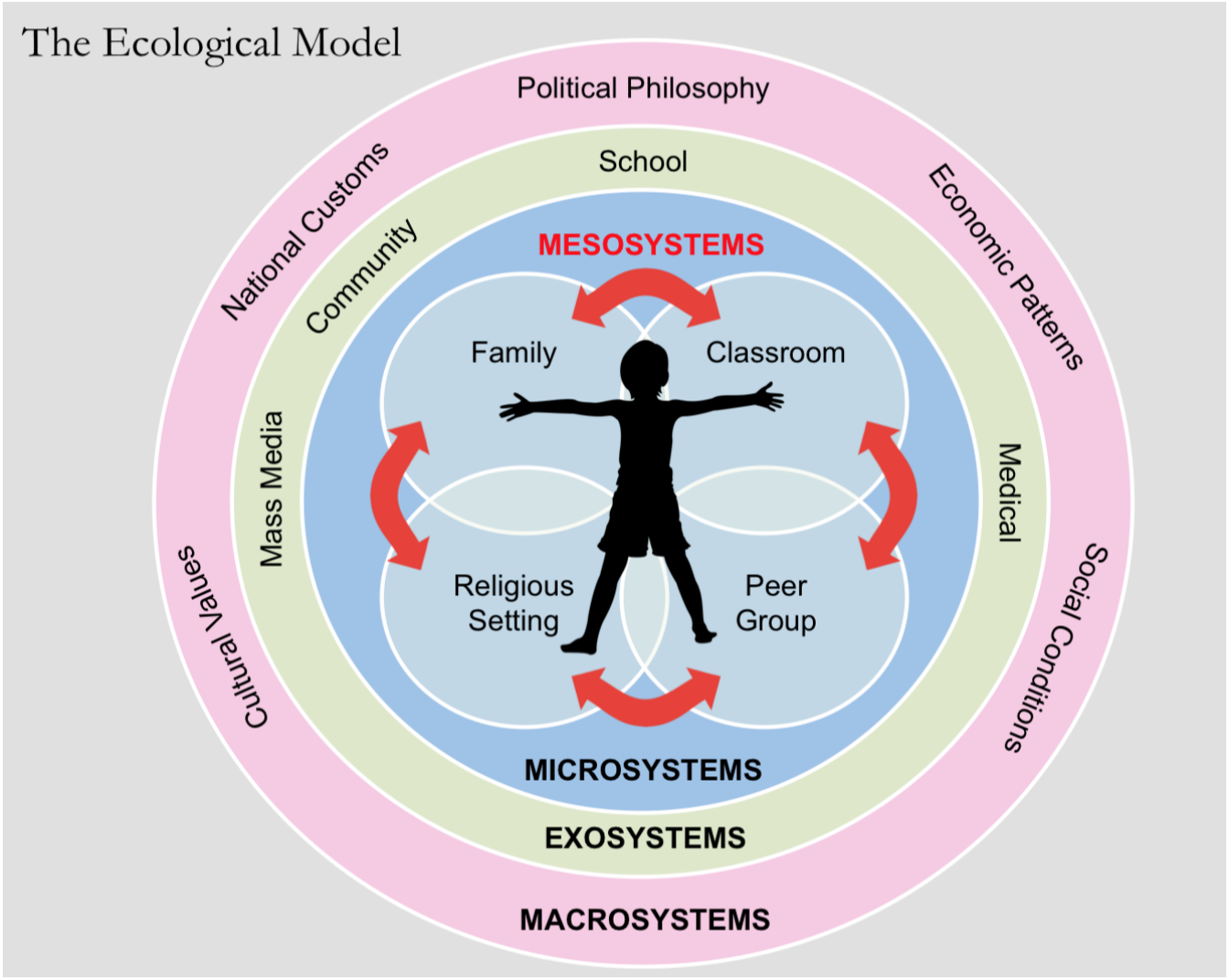
LITERATURE

- "Resilience" first studied by psychiatrists (Rutter)
  - "positive adaptation in the face of adversity"

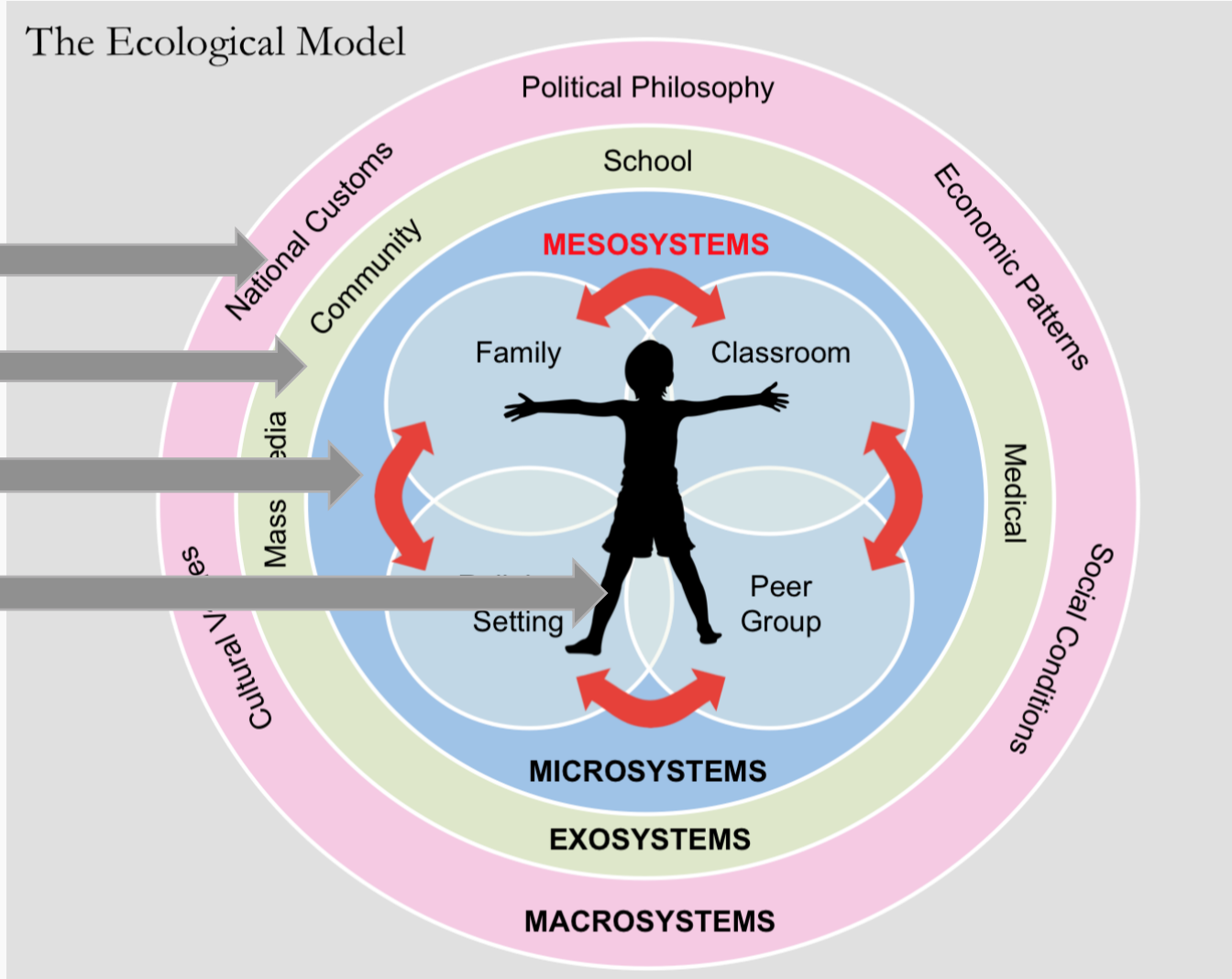
LITERATURE

- "Resilience" first studied by psychiatrists (Rutter)
  - "positive adaptation in the face of adversity"
  - Risk factors vs. protective factors

Ecological model of development



Risk factors & protective factors



LITERATURE

- This theoretical framework applied by educational psychologists to explain **learning** outcomes that exceed expectations
  - "Academic resilience"

LITERATURE

- This theoretical framework applied by educational psychologists to explain **learning** outcomes that exceed expectations
  - "Academic resilience"
- Within this framework, outlier learners' performance can be explained as the result of having protective factors that offset the risk that poverty poses to their academic success

DATA

- Over 2600 Grade 6 learners across 60 rural and township primary schools across three provinces

DATA

- Over 2600 Grade 6 learners across 60 rural and township primary schools across three provinces.
- Purposeful sampling: schools positioned in challenging contexts, i.e. learners are all in "vulnerable" conditions
  - Poverty as major risk factor for all learners in sample

DATA

- Over 2600 Grade 6 learners across 60 rural and township primary schools across three provinces
- Purposeful sampling: schools positioned in challenging contexts, i.e. learners are all in "vulnerable" conditions
  - Poverty as major risk factor for all learners in sample
- Outcome variable: English reading comprehension test scores
  - Same test written twice

ASSESSMENT

Questions Fly, Eagle, Fly

1. **What did the farmer set out to look for at the beginning of the story?**
   a) a calf
   b) herders
   c) rocky cliffs
   d) a chick

2. **Where did the farmer find the eagle chick?**
   a) in its nest
   b) by the riverbed
   c) on a ledge of rock
   d) among the reeds

Released items from previous PIRLS tests

5. **During the friend's first visit, the eagle chick behaved like a chicken. Give <u>two</u> examples that show this.** (2 marks)

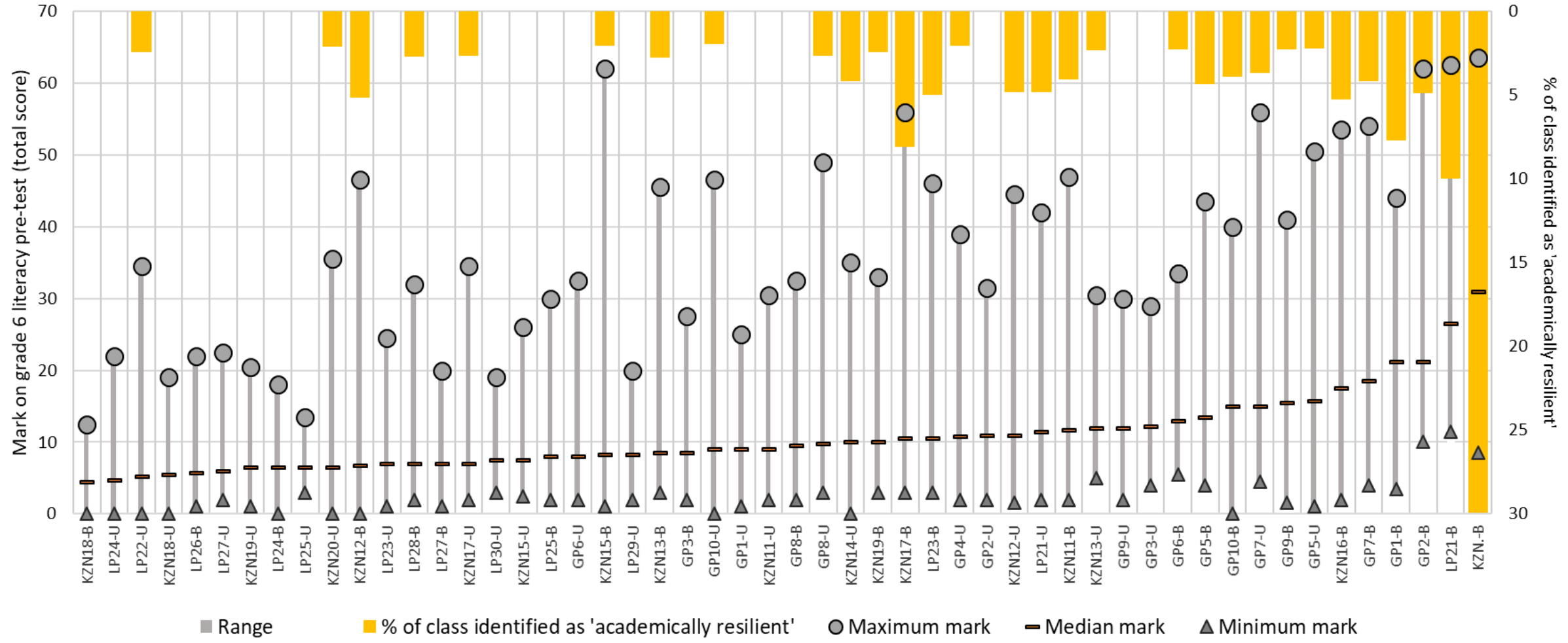
1._____

_____

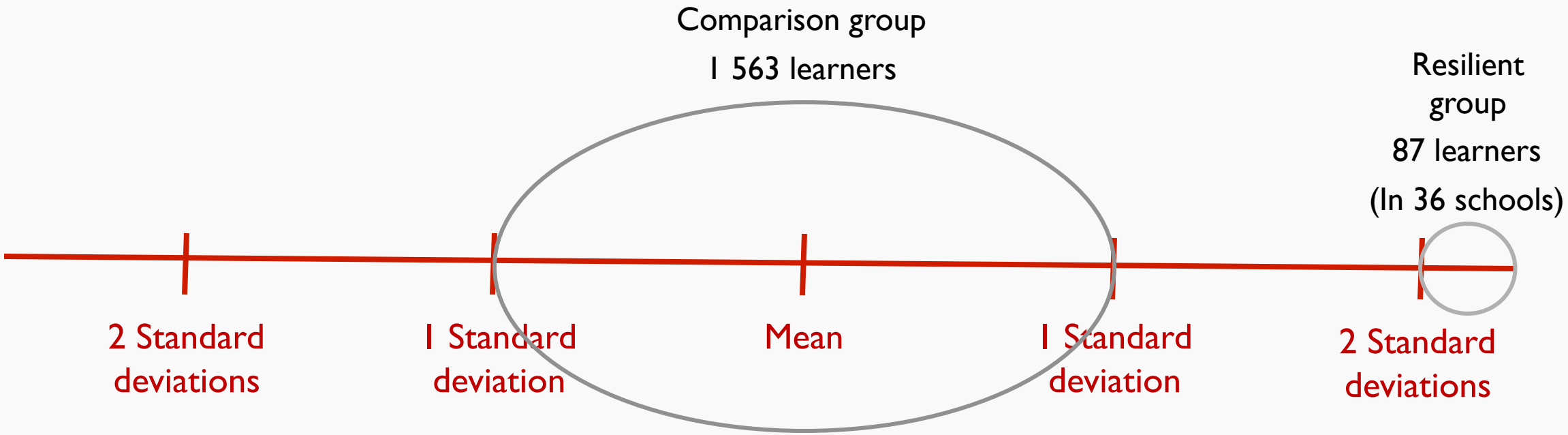
2._____

_____

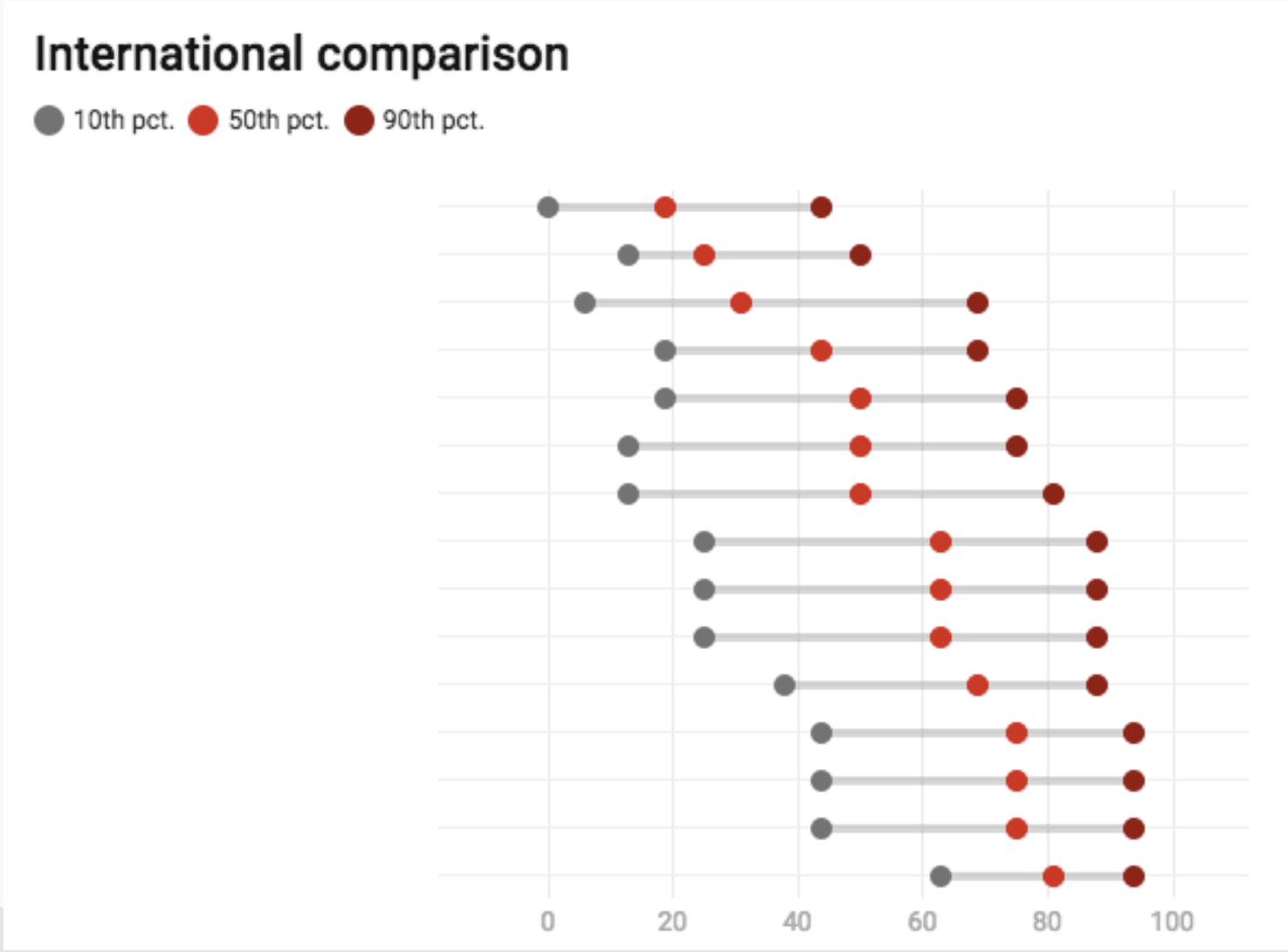
DISTRIBUTION OF RESILIENT LEARNERS



IDENTIFYING RESILIENT LEARNERS



PERFORMANCE OF RESILIENT LEARNERS



PERFORMANCE OF RESILIENT LEARNERS

Romania (Gr.4)

Botswana (Gr.6)

Finland (Gr.4)

Russian Fed. (Gr.4)

Low to middle income

Iran, Islamic Rep. (Gr.4)

Azerbaijan (Gr.4)

Australia (Gr.4)

Our sample: Resilient

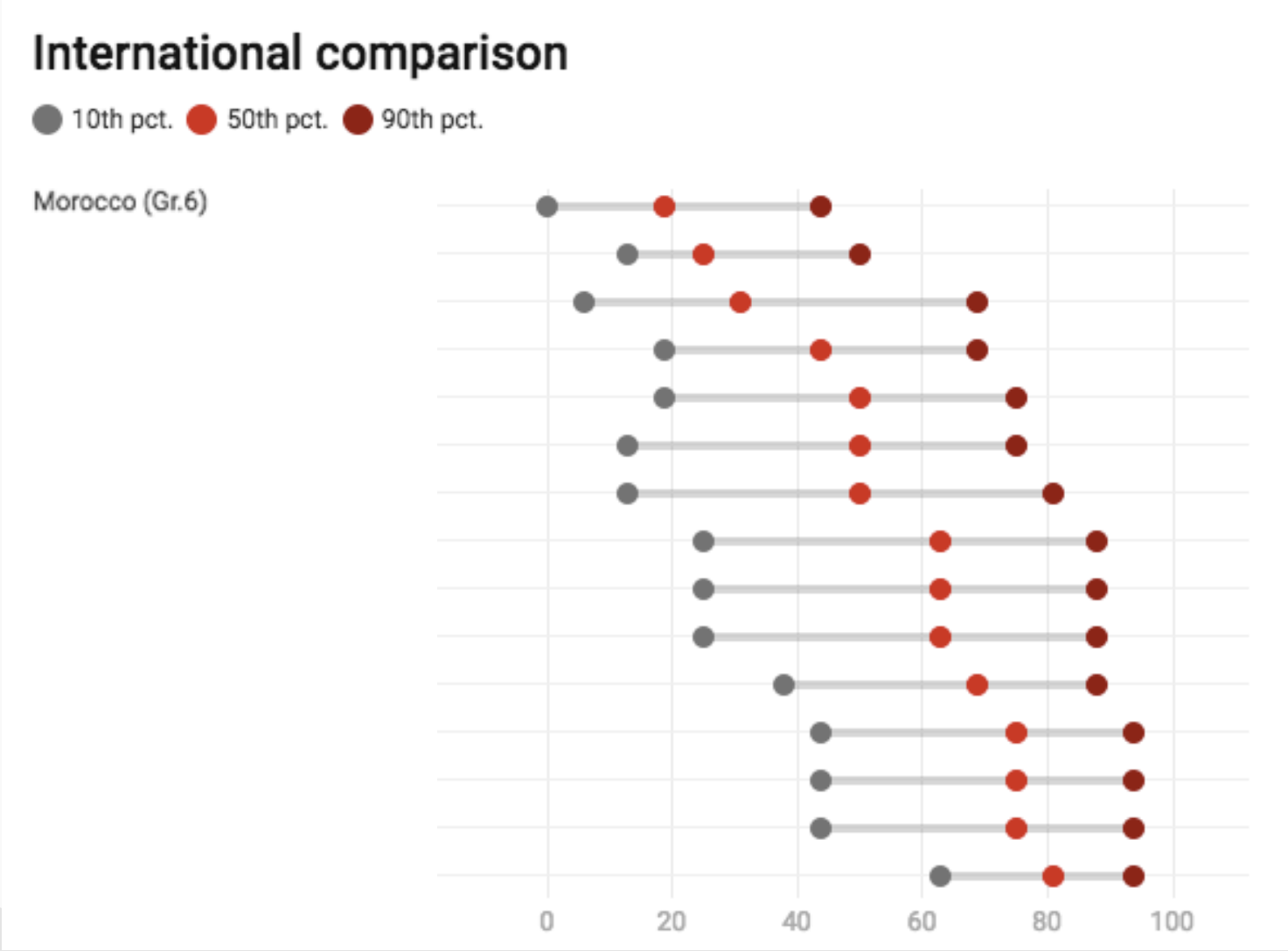
Honduras (Gr.6)

Croatia (Gr.4)

Our grade 6 sample: Non-resilient

Germany (Gr.4)

Georgia (Gr.4)



PERFORMANCE OF RESILIENT LEARNERS

Romania (Gr.4)

Botswana (Gr.6)

Finland (Gr.4)

Russian Fed. (Gr.4)

Low to middle income

Iran, Islamic Rep. (Gr.4)

Azerbaijan (Gr.4)

Australia (Gr.4)

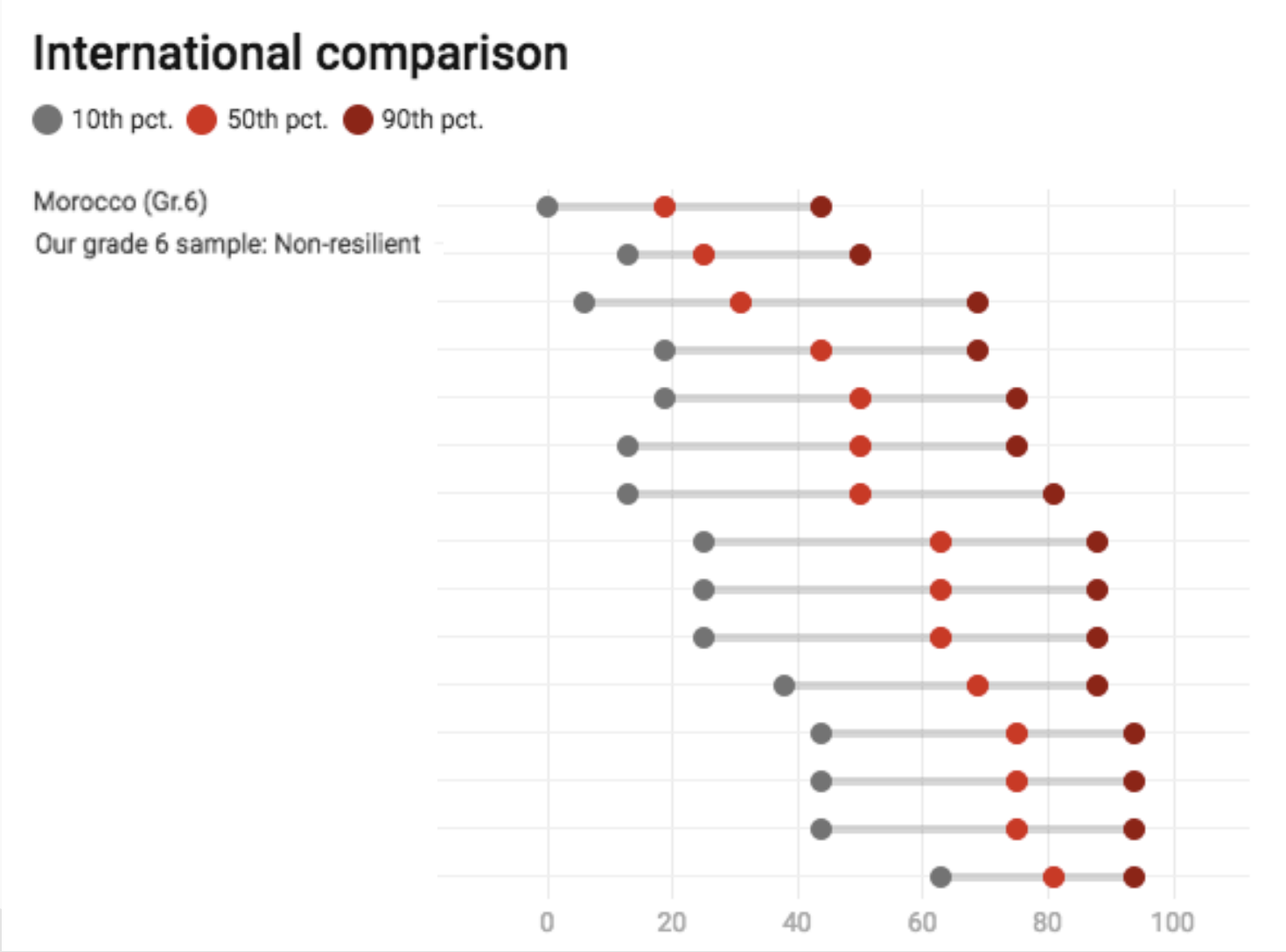
Our sample: Resilient

Honduras (Gr.6)

Croatia (Gr.4)

Germany (Gr.4)

Georgia (Gr.4)



PERFORMANCE OF RESILIENT LEARNERS

Romania (Gr.4)

Finland (Gr.4)

Russian Fed. (Gr.4)

Low to middle income

Iran, Islamic Rep. (Gr.4)

Azerbaijan (Gr.4)

Australia (Gr.4)

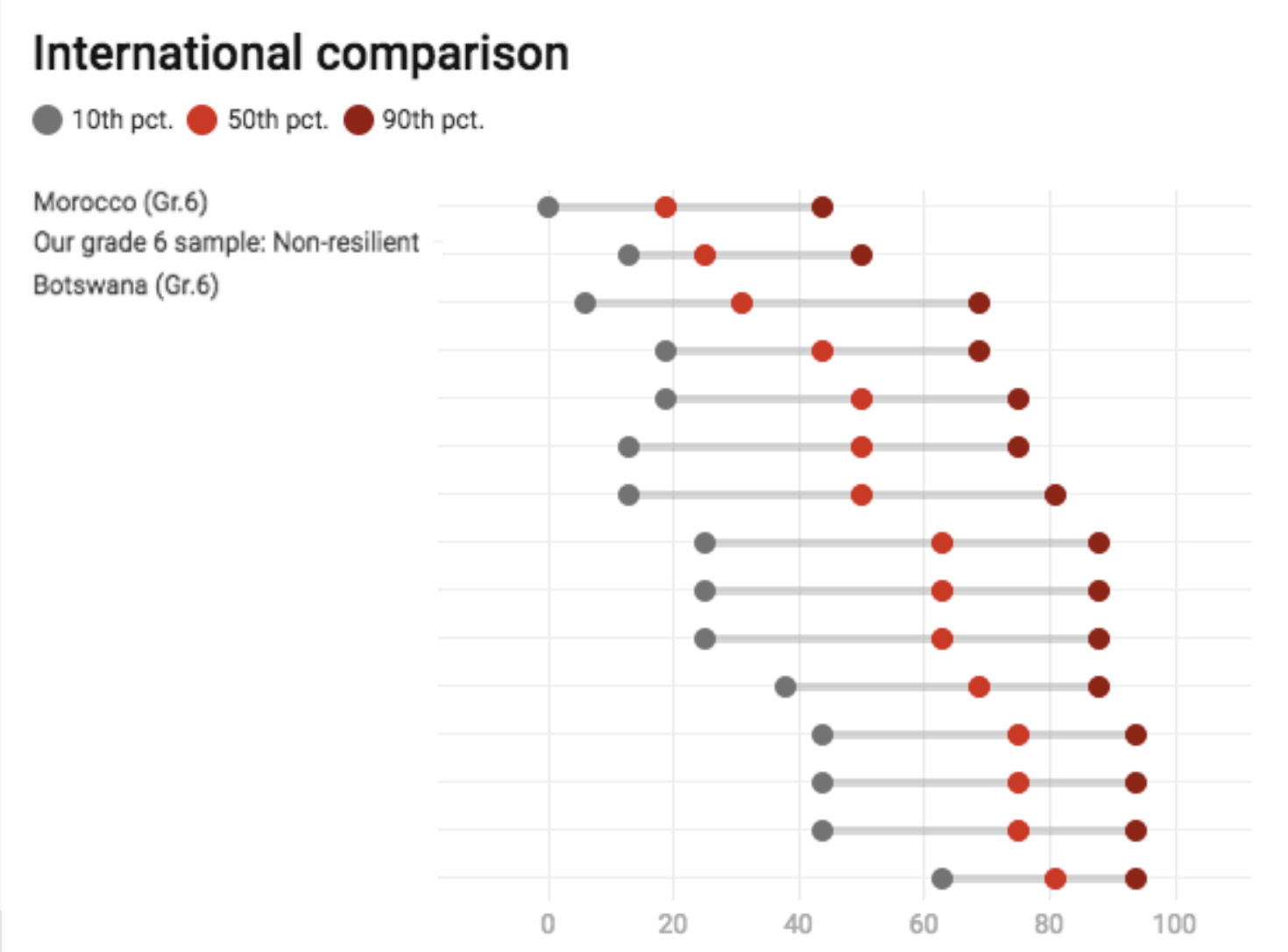
Our sample: Resilient

Honduras (Gr.6)

Croatia (Gr.4)

Germany (Gr.4)

Georgia (Gr.4)



PERFORMANCE OF RESILIENT LEARNERS

Romania (Gr.4)

Finland (Gr.4)

Russian Fed. (Gr.4)

Low to middle income

Iran, Islamic Rep. (Gr.4)

Australia (Gr.4)

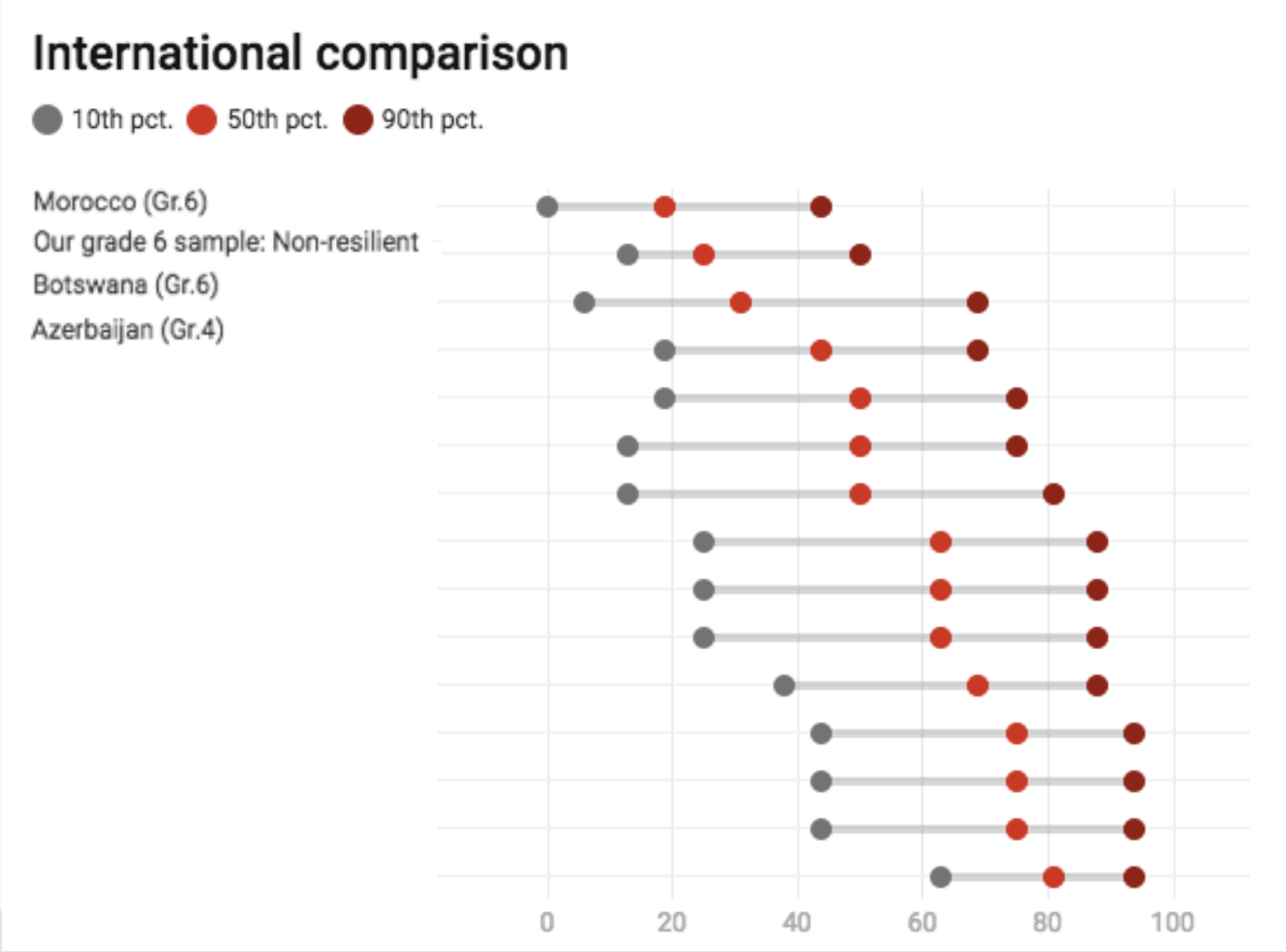
Our sample: Resilient

Honduras (Gr.6)

Croatia (Gr.4)

Germany (Gr.4)

Georgia (Gr.4)



PERFORMANCE OF RESILIENT LEARNERS

Romania (Gr.4)

Finland (Gr.4)

Russian Fed. (Gr.4)

Low to middle income

Iran, Islamic Rep. (Gr.4)

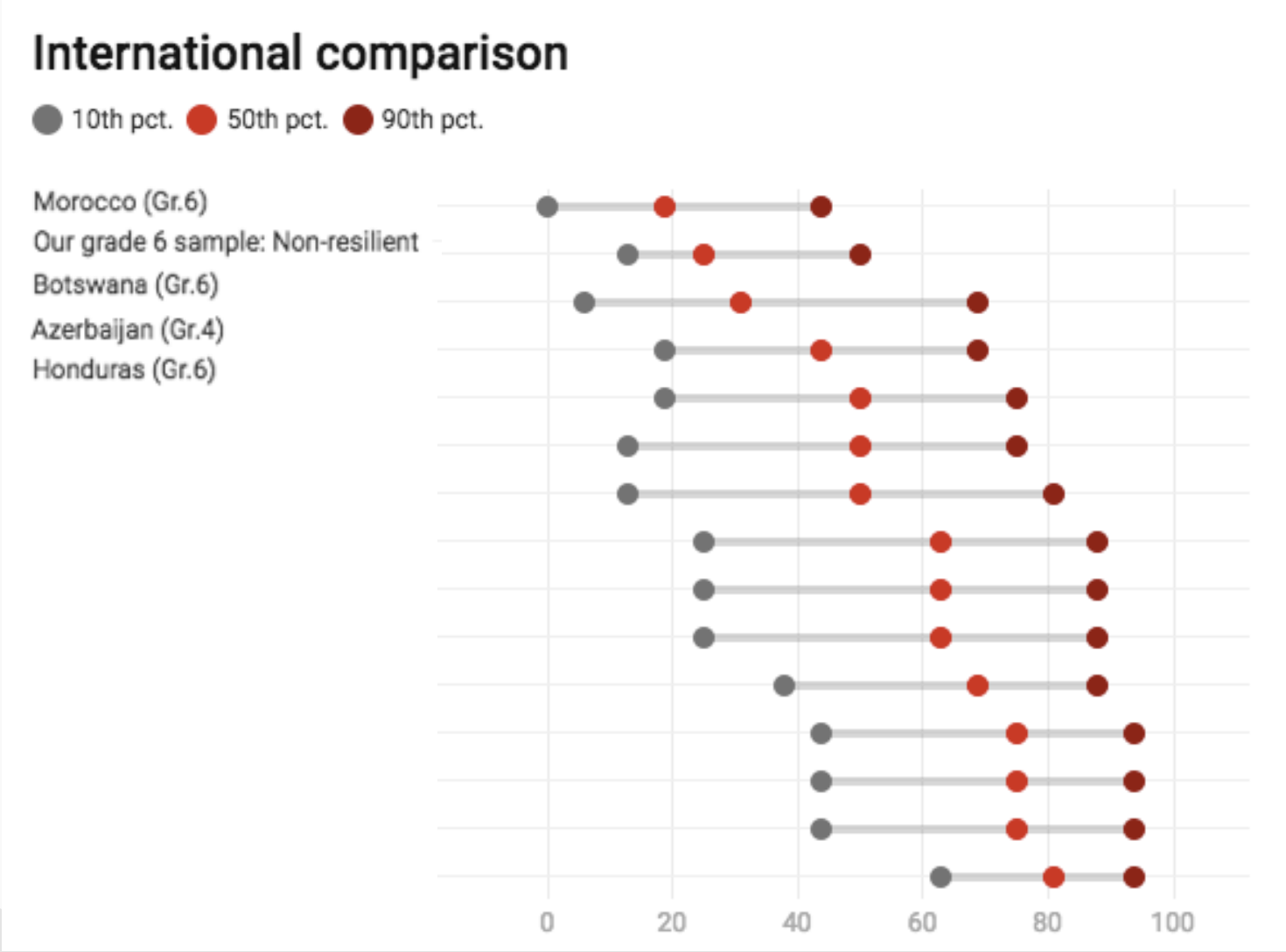
Australia (Gr.4)

Our sample: Resilient

Croatia (Gr.4)

Germany (Gr.4)

Georgia (Gr.4)



PERFORMANCE OF RESILIENT LEARNERS

Romania (Gr.4)

Finland (Gr.4)

Russian Fed. (Gr.4)

Low to middle income

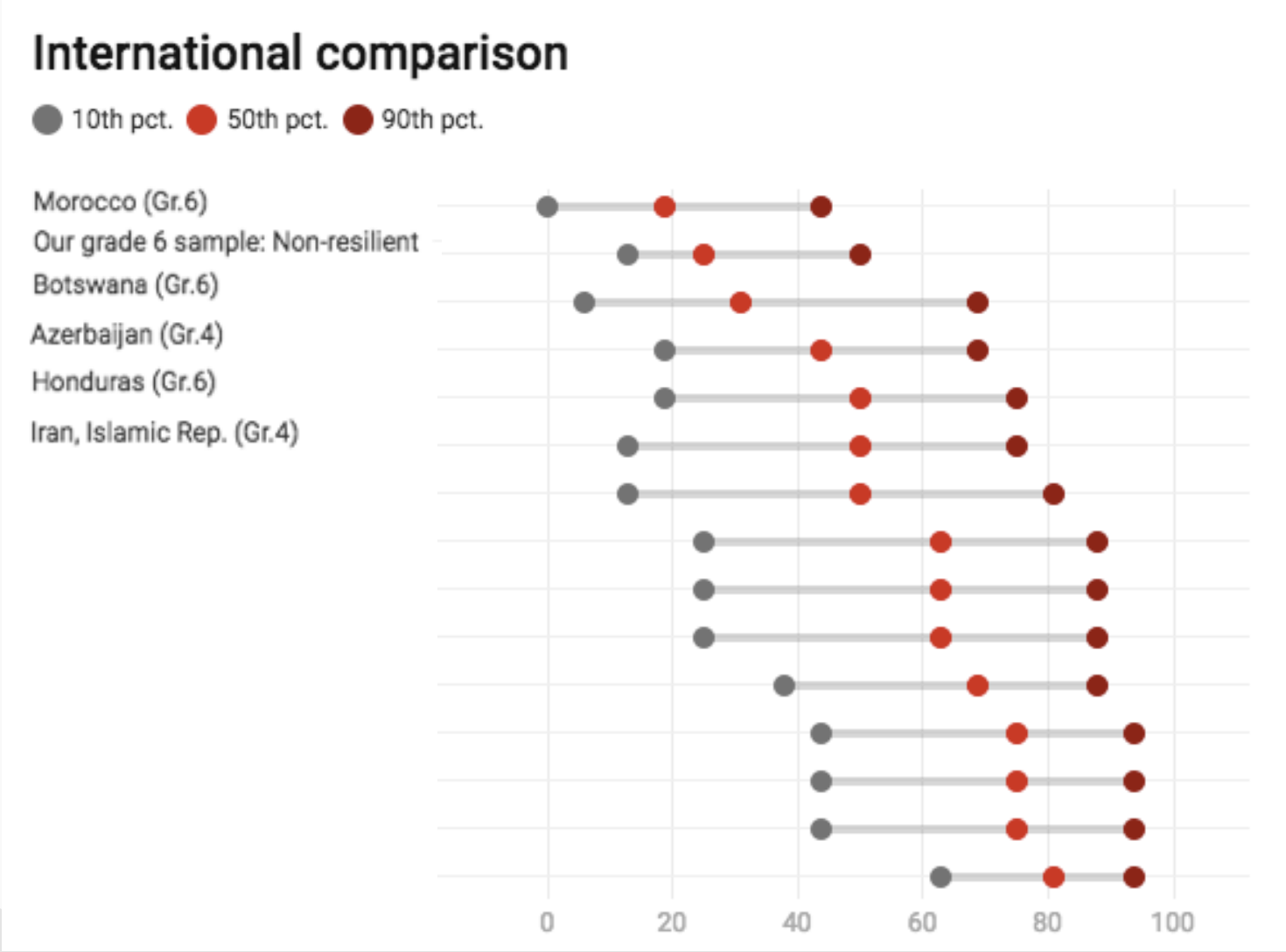
Australia (Gr.4)

Our sample: Resilient

Croatia (Gr.4)

Germany (Gr.4)

Georgia (Gr.4)



PERFORMANCE OF RESILIENT LEARNERS

Romania (Gr.4)

Finland (Gr.4)

Russian Fed. (Gr.4)

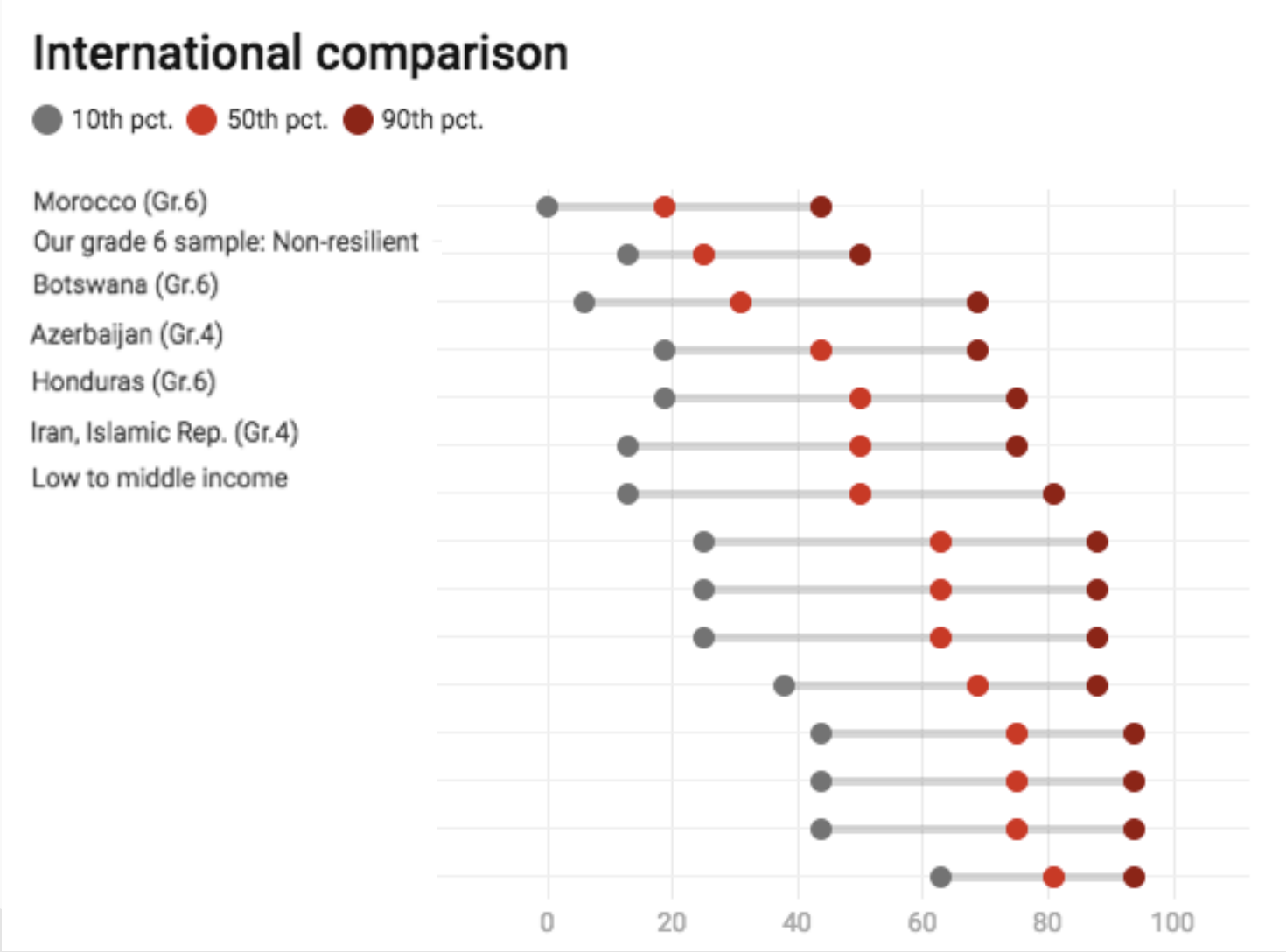
Australia (Gr.4)

Our sample: Resilient

Croatia (Gr.4)

Germany (Gr.4)

Georgia (Gr.4)



PERFORMANCE OF RESILIENT LEARNERS

Finland (Gr.4)

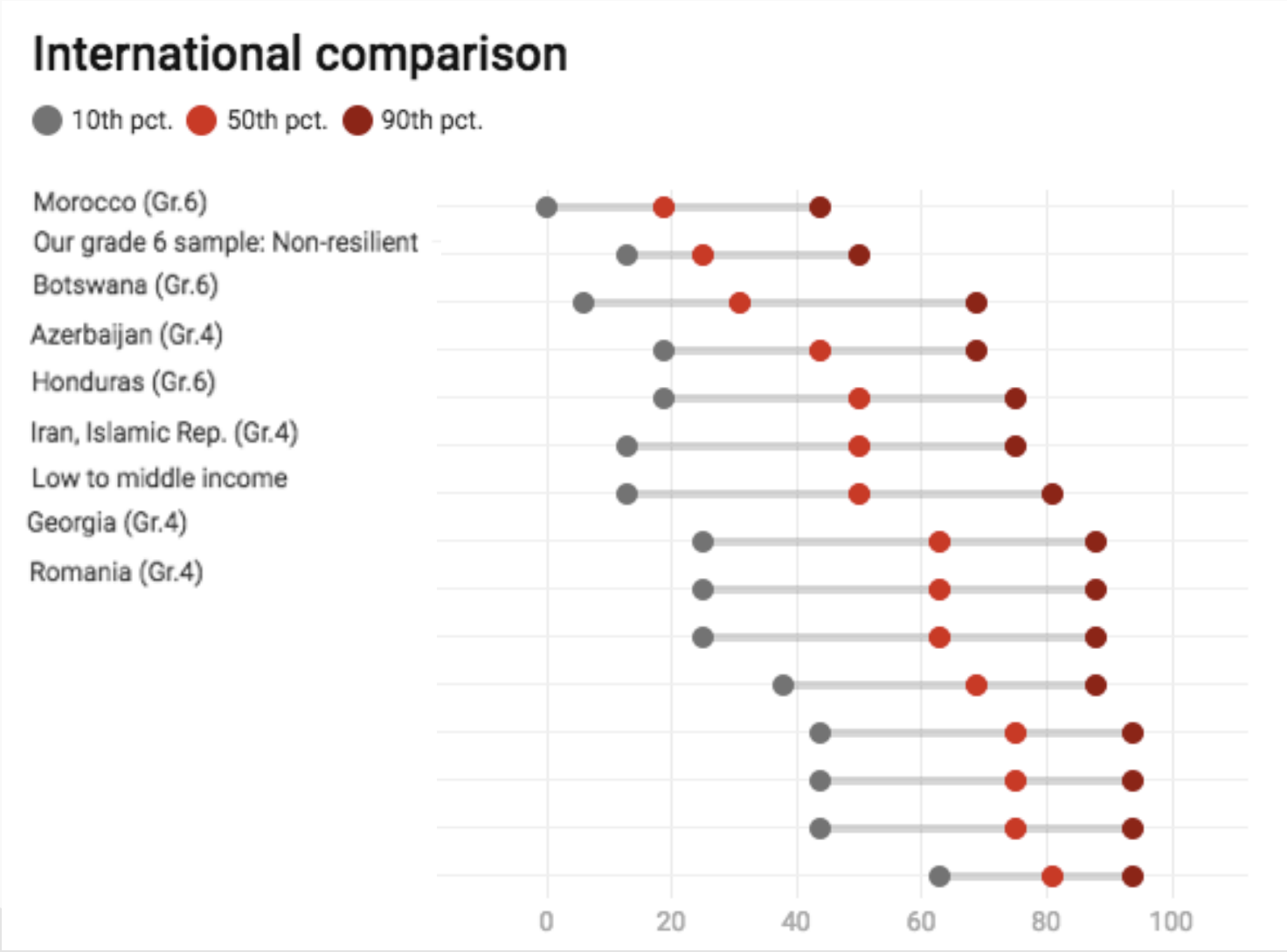
Russian Fed. (Gr.4)

Australia (Gr.4)

Our sample: Resilient

Croatia (Gr.4)

Germany (Gr.4)



PERFORMANCE OF RESILIENT LEARNERS

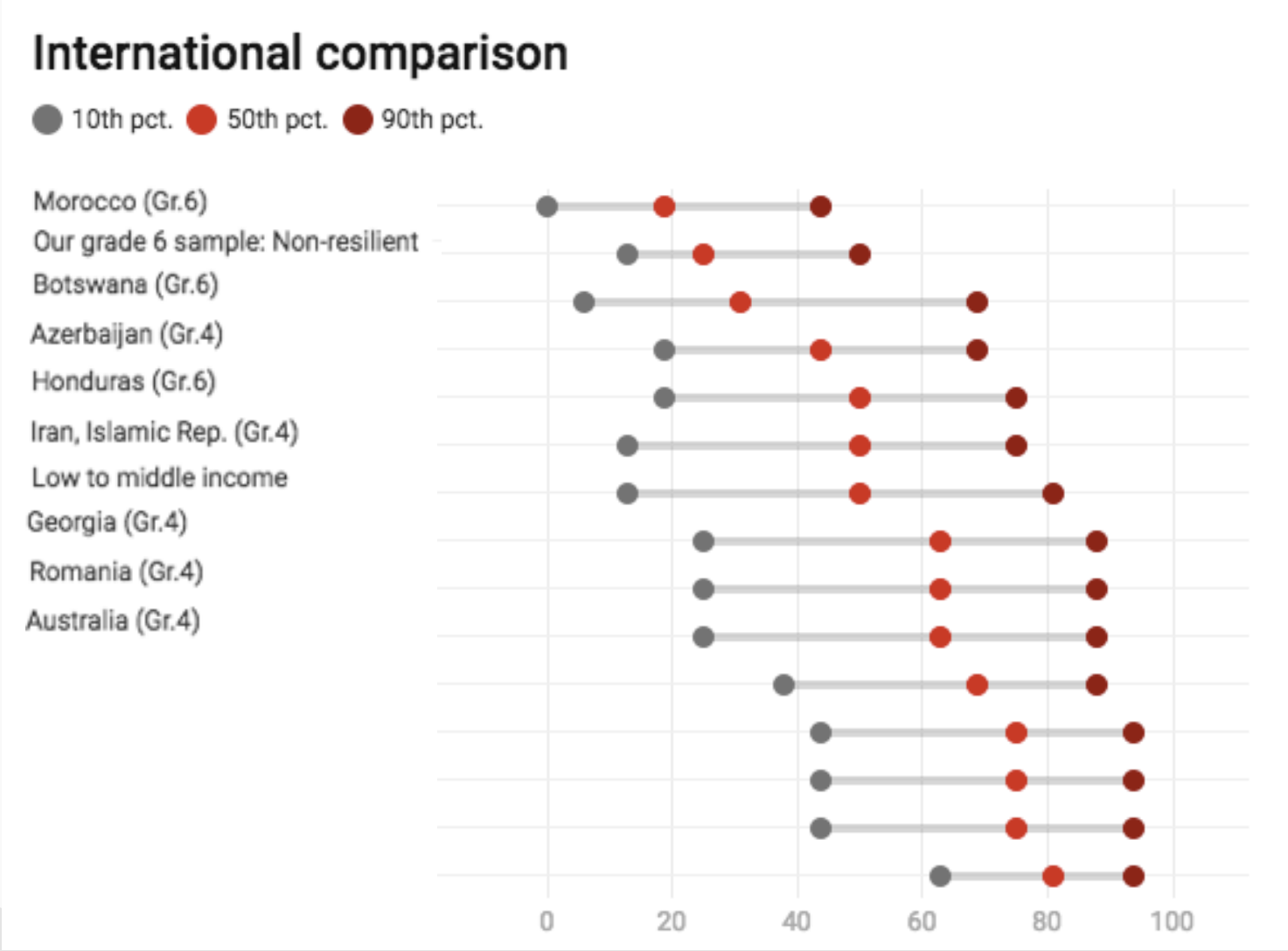
Finland (Gr.4)

Russian Fed. (Gr.4)

Our sample: Resilient

Croatia (Gr.4)

Germany (Gr.4)



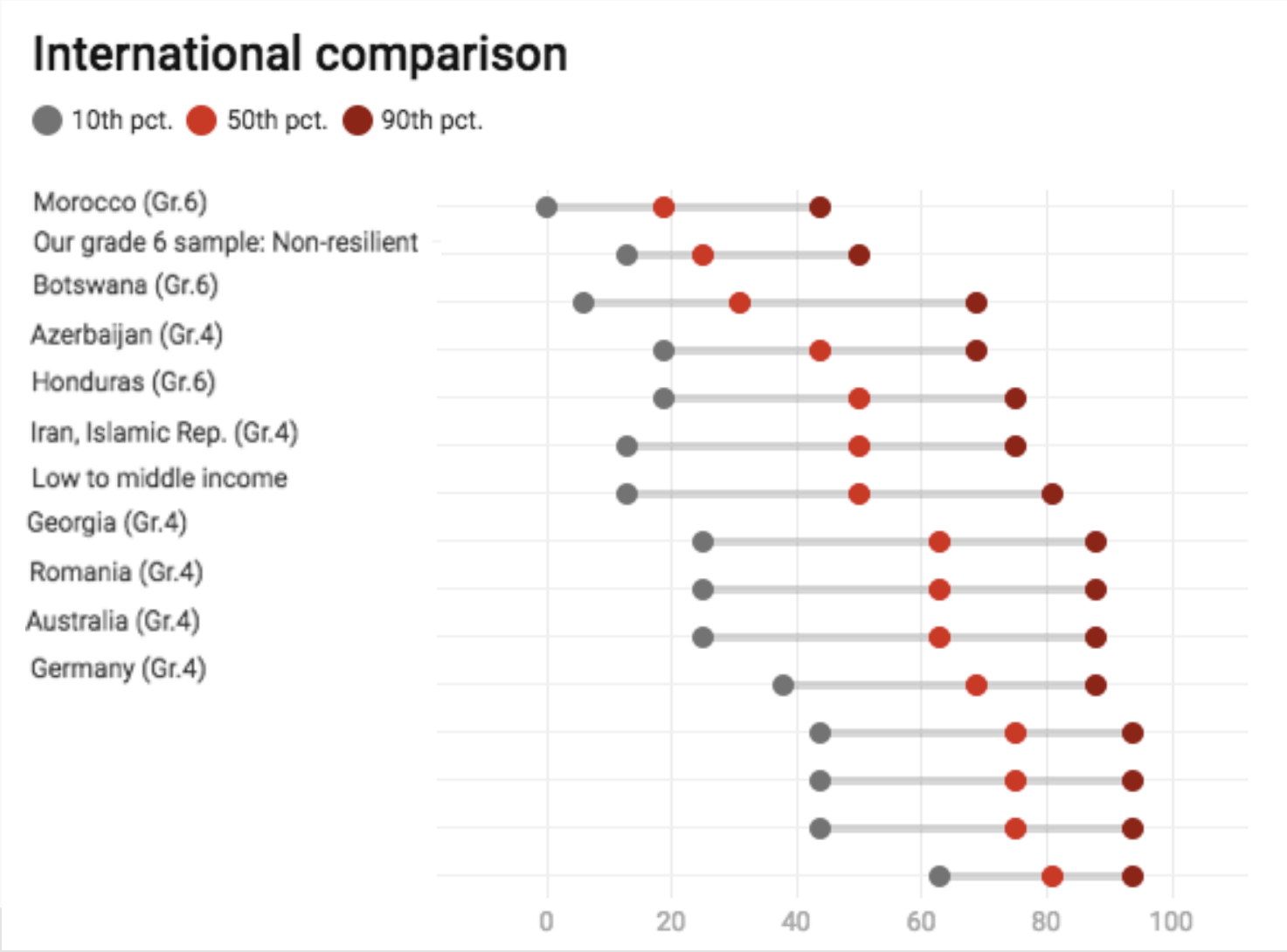
PERFORMANCE OF RESILIENT LEARNERS

Finland (Gr.4)

Russian Fed. (Gr.4)

Our sample: Resilient

Croatia (Gr.4)

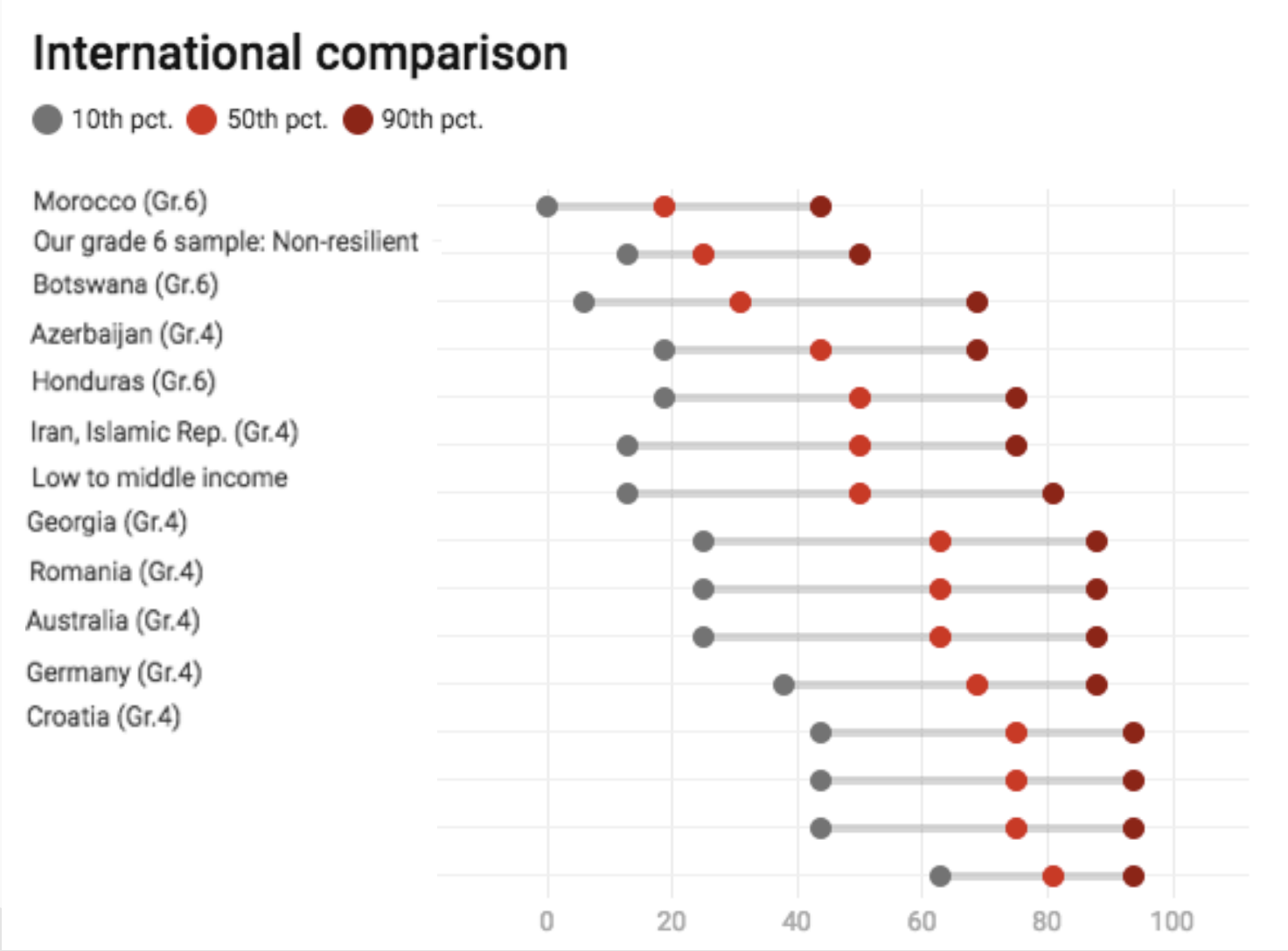


PERFORMANCE OF RESILIENT LEARNERS

Finland (Gr.4)

Russian Fed. (Gr.4)

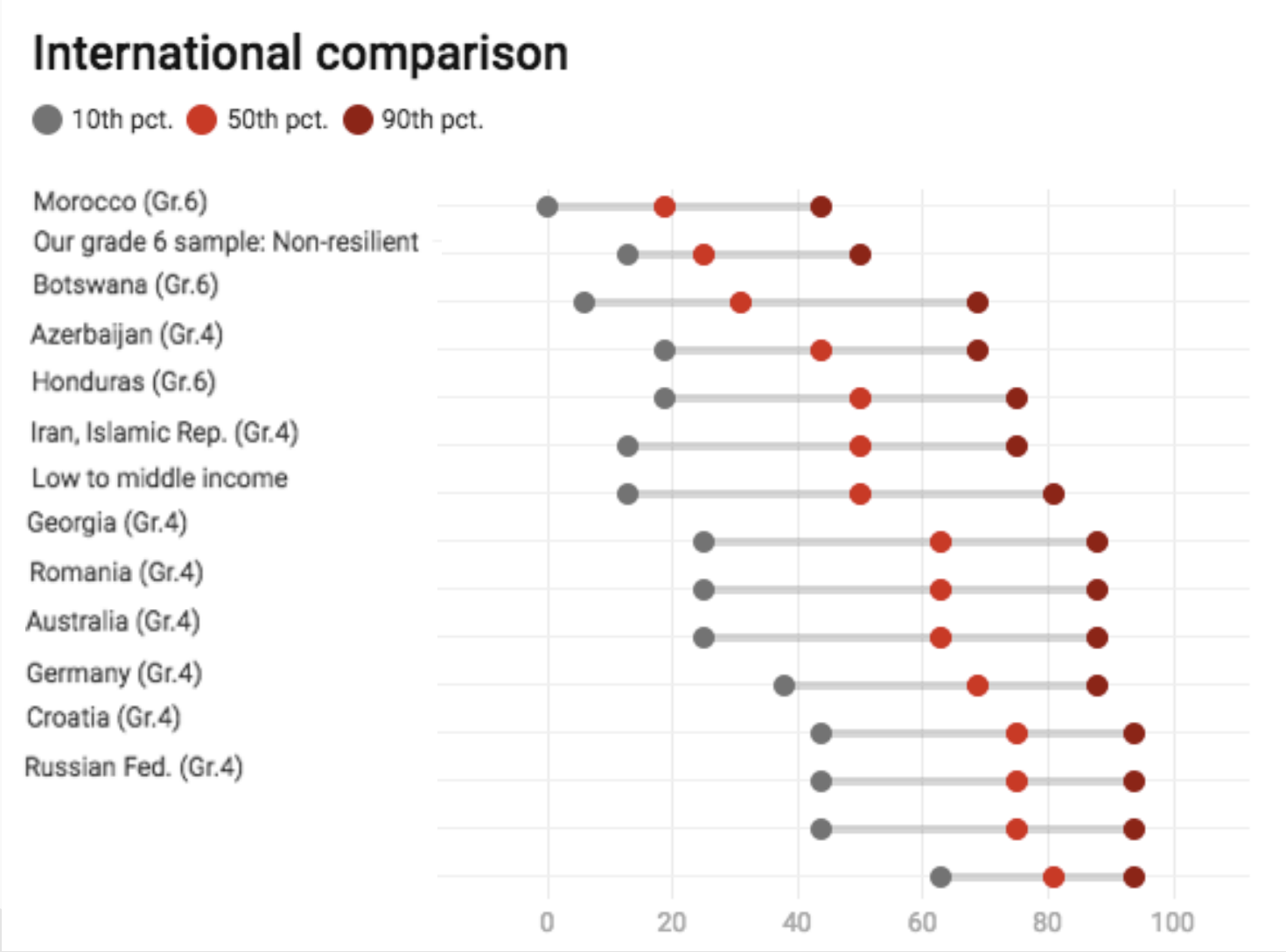
Our sample: Resilient



PERFORMANCE OF RESILIENT LEARNERS

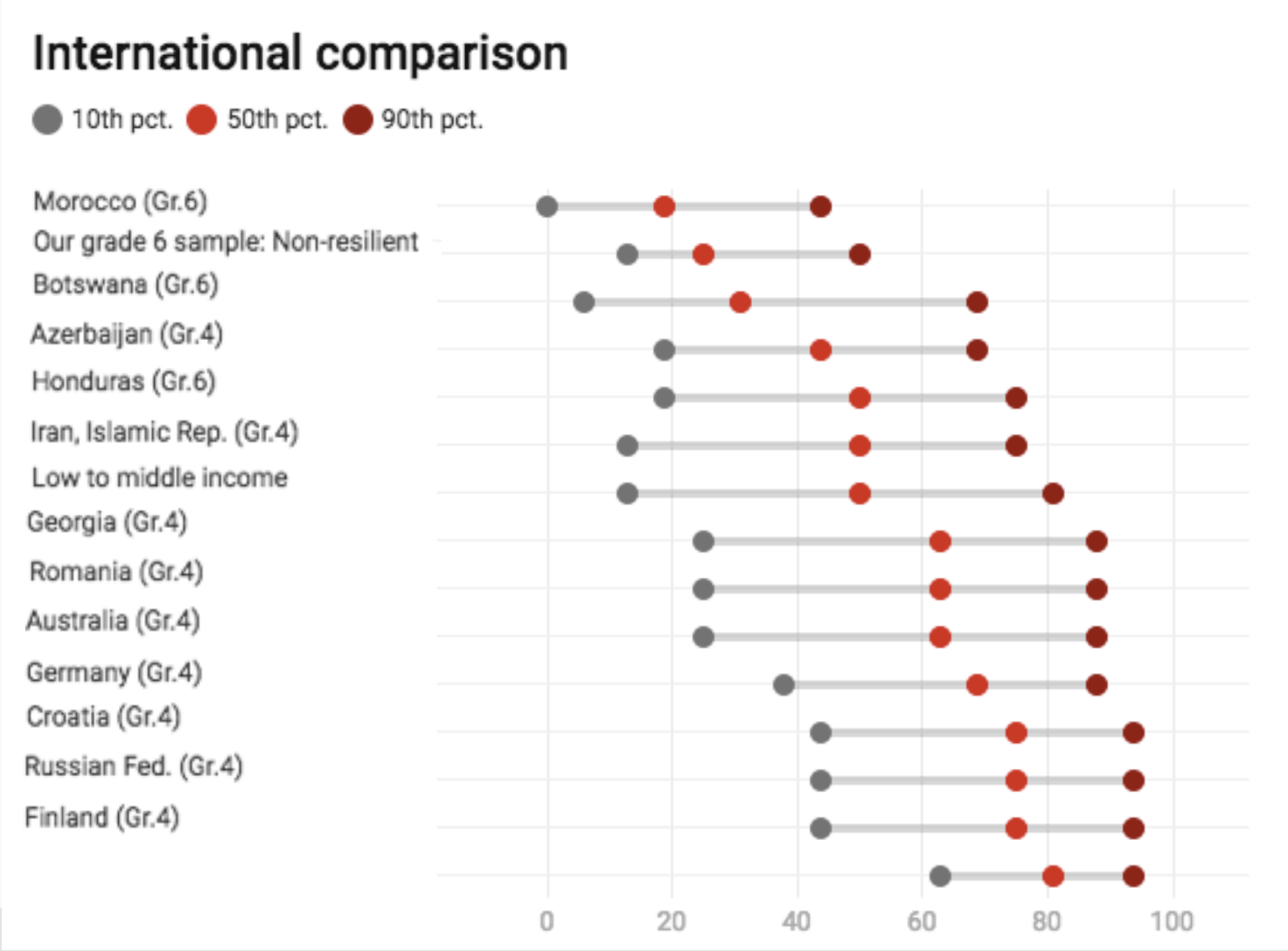
Finland (Gr.4)

Our sample: Resilient

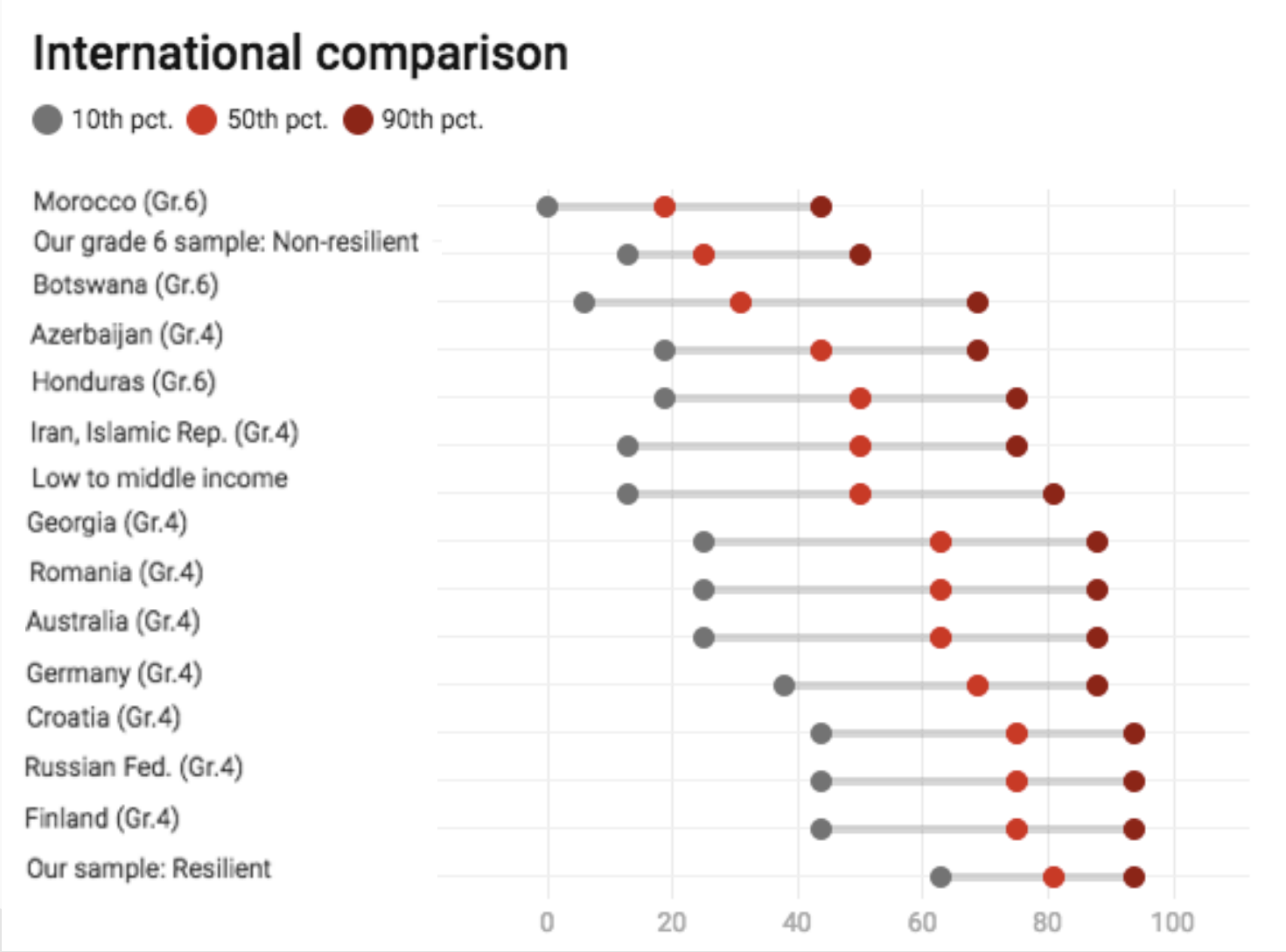


PERFORMANCE OF RESILIENT LEARNERS

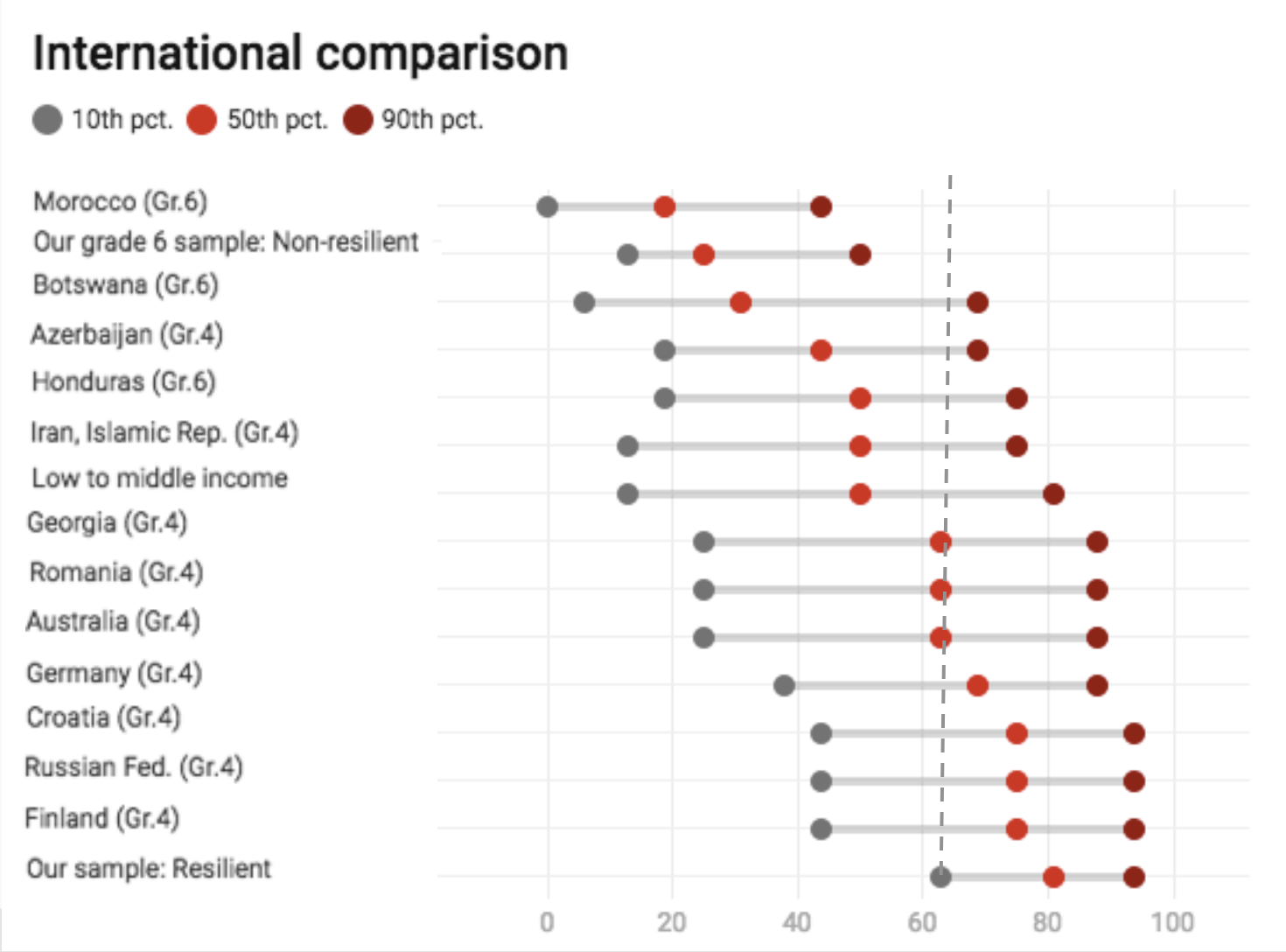
Our sample: Resilient



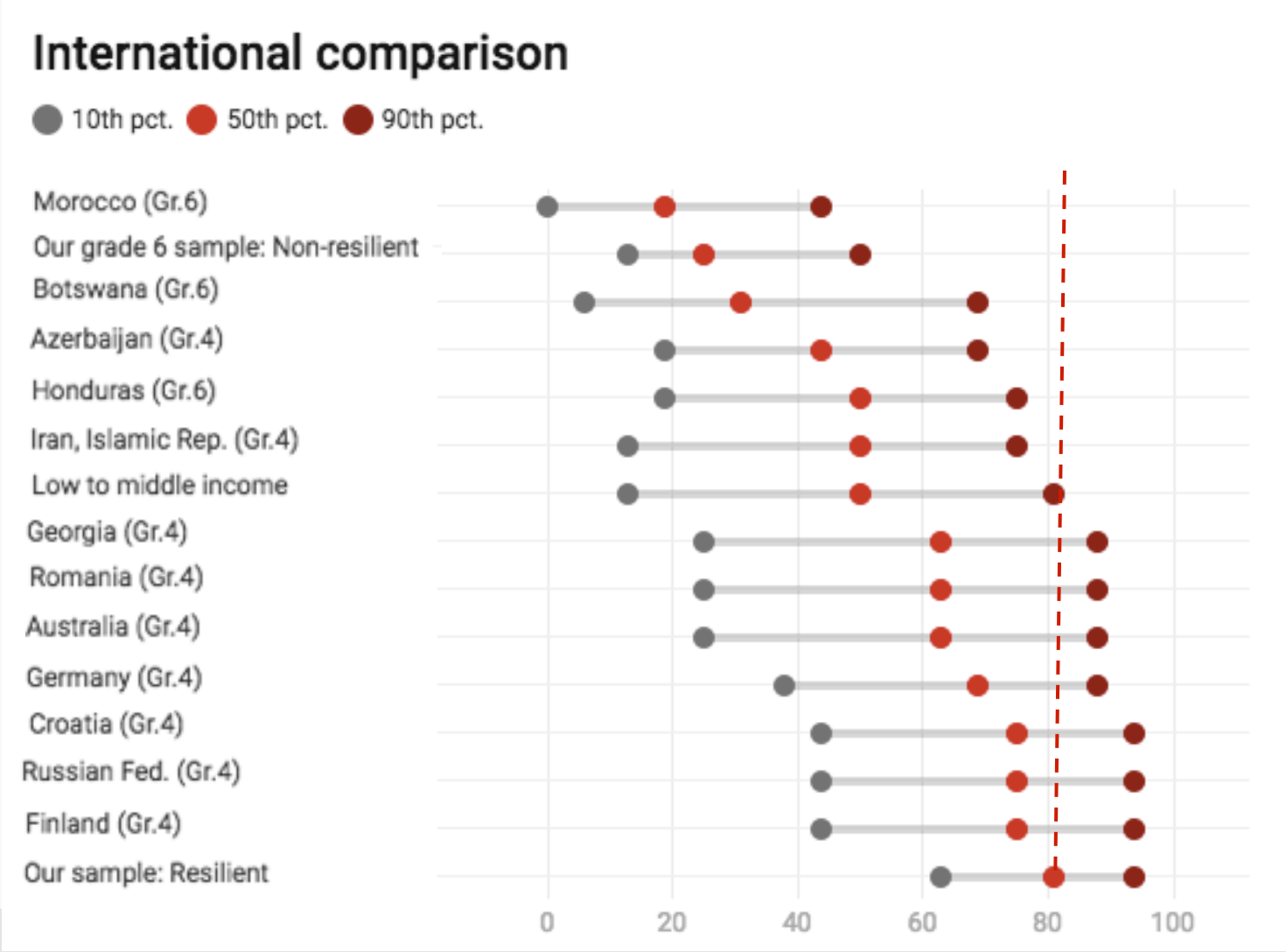
PERFORMANCE OF RESILIENT LEARNERS



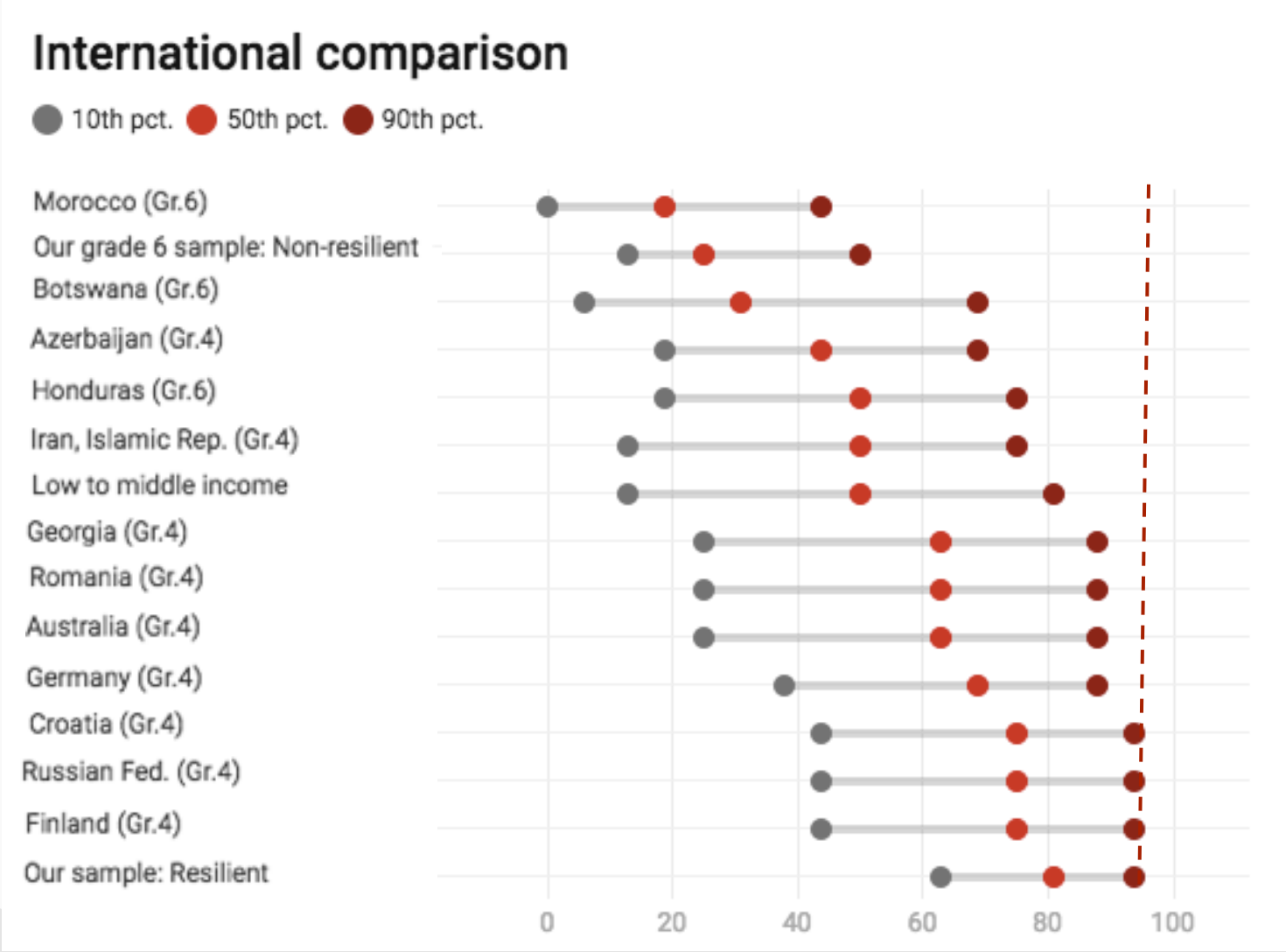
PERFORMANCE OF RESILIENT LEARNERS



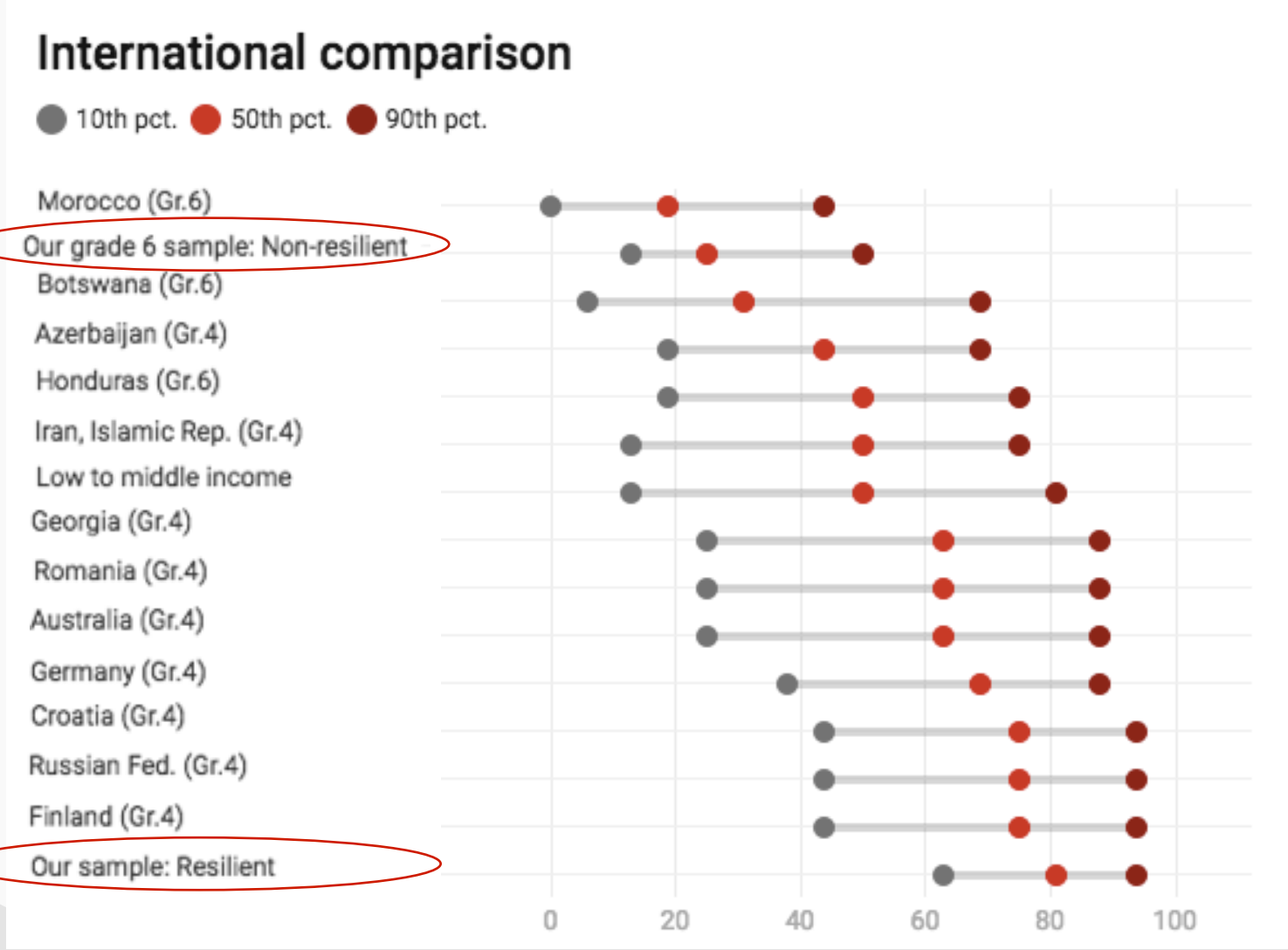
PERFORMANCE OF RESILIENT LEARNERS



PERFORMANCE OF RESILIENT LEARNERS



PERFORMANCE OF RESILIENT LEARNERS



ESTIMATING PROBABILITY OF BEING RESILIENT

Home background + School factors + Perseverance, aspirations, attitudes to school = Resilient: Yes/No?

GRIT AND ASPIRATIONS INDICES

Γριτ ινδεξ (ζ-σχορε)	Α πρινχιπαλ χομπονεντσ ινδεξ δεριωεδ φρομ 5 'γριτ'-ρελατεδ θυεστιονσ. Στυδεντσ ωερε ασκεδ το ρεσπονδ το τηε φολλοωινγ στατεμεντσ υσινγ α ρεσπονσε σχαλε: [Τηατ'σ νοτ ατ αλλ λικε με", "Τηατ'σ νοτ ρεαλλψ λικε με", "Τηατ'σ σομετιμεσ λικε με", "Τηατ'σ α λοτ λικε με"]: 2)"Προβλεμσ ανδ χηαλλενγεσ **δον'τ** δισχουραγε με. Ωηεν Ι μακε α μιστακε Ι γετ βαχκ υπ ανδ τρψ αγαιν." 4) "Ι ωορκ ηαρδ το δο τηινγσ ωελλ." 7) "Ι φινιση ωηατεωερ Ι σταρτ." 8) "Ι χαν σιτ στιλλ φορ λονγερ τηαν οτηερ χηιλδρεν ιν τηε χλασσ." 9) "Ι δο μψ σχηοολωορκ χαρεφυλλψ."
Ασπιρατιονσ ινδεξ (ζ-σχορε)	Α πρινχιπαλ χομπονεντσ ινδεξ δεριωεδ φρομ 3 θυεστιονσ ασκεδ οφ στυδεντσ: ι) **Ηοω ιμπορταντ ισ ιτ το γετ γοοδ μαρκσ ιν σχηοολ?** [Νοτ ιμπορταντ, α λιττλε ιμπορταντ, ωερψ ιμπορταντ] ιι) **Δο ψου τηινκ ψου'λλ πασσ ματριχ?** [Νο, Μαψβε, Ψεσ] ιιι) **Δο ψου τηινκ ψου'λλ γο το υνιωερσιτψ αφτερ σχηοολ?** [Νο, Μαψβε, Ψεσ]

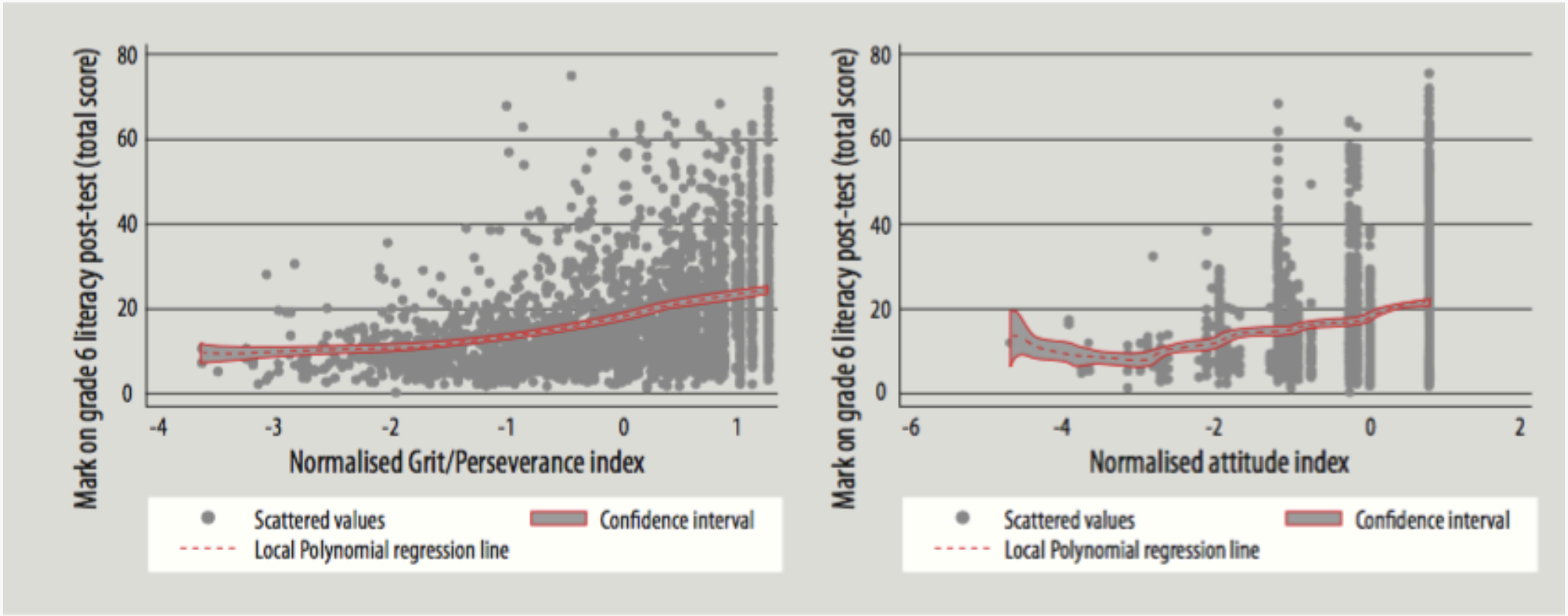
ATTITUDE TO SCHOOL INDEX

Attitude to school index (z-score)	A principal components index derived from 4 questions asked of students: i) **How much do you learn in school every day?** [Not very much, A little, A lot!] ii) **How excited are you to go to school each day?** [Not excited at all, A little excited, Very excited!] iii) **How much do you think your teacher cares about you?** [Not at all, A little, A lot!] iv) **Do you feel like your teacher believes in you?** [No, Yes, I don't know].

ESTIMATING PROBABILITY OF BEING RESILIENT

Home background + School factors + Perseverance, aspirations, attitudes to school = Resilient: Yes/No?

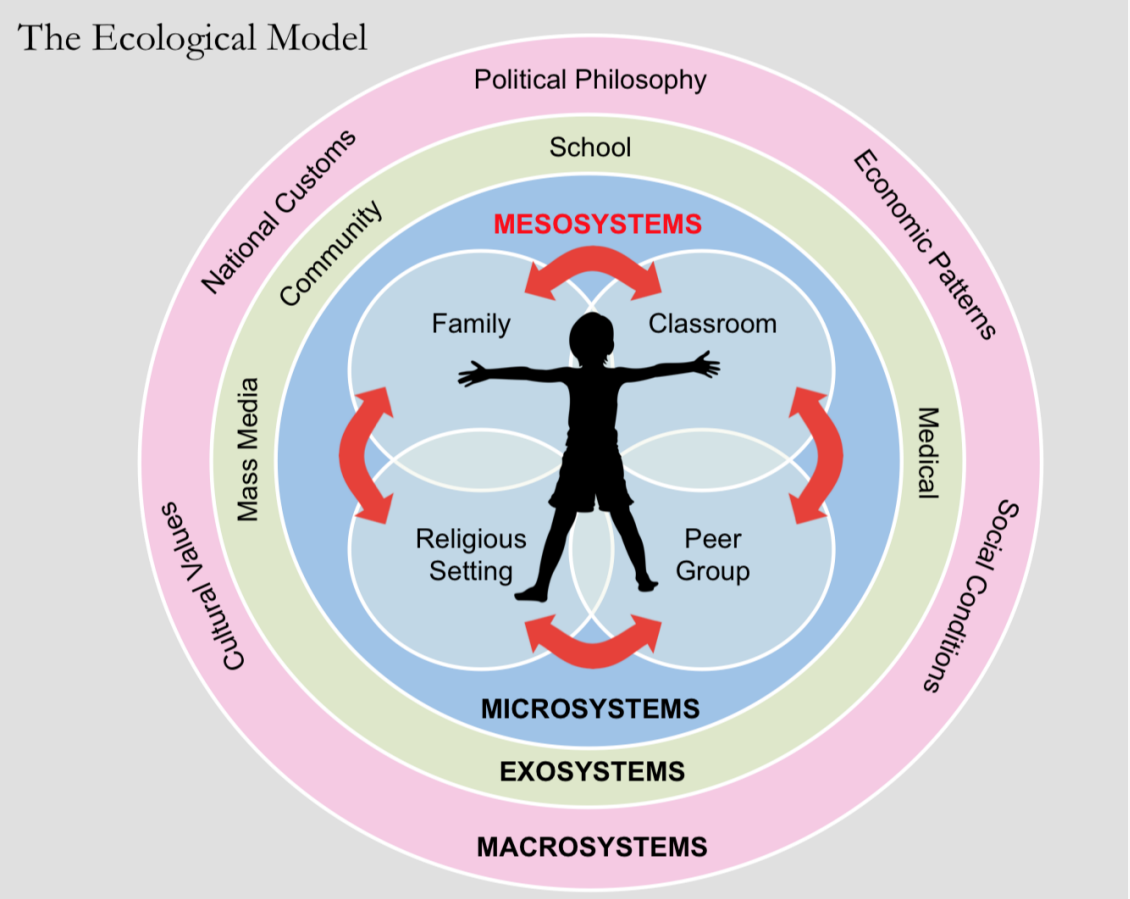
Literacy performance against grit and attitudes to school



Source: 2017 'Leadership for Literacy' dataset. The scatter points represent 2379 different learners from 60 different schools. A local polynomial regression line shows a relationship between two variables that best fits the data.

CONCLUSIONS

Resilient learners differ from their peers across a number of dimensions, with **socio-emotional skills** (perseverance and aspirations) emerging as the strongest and most consistent predictors of resilience.



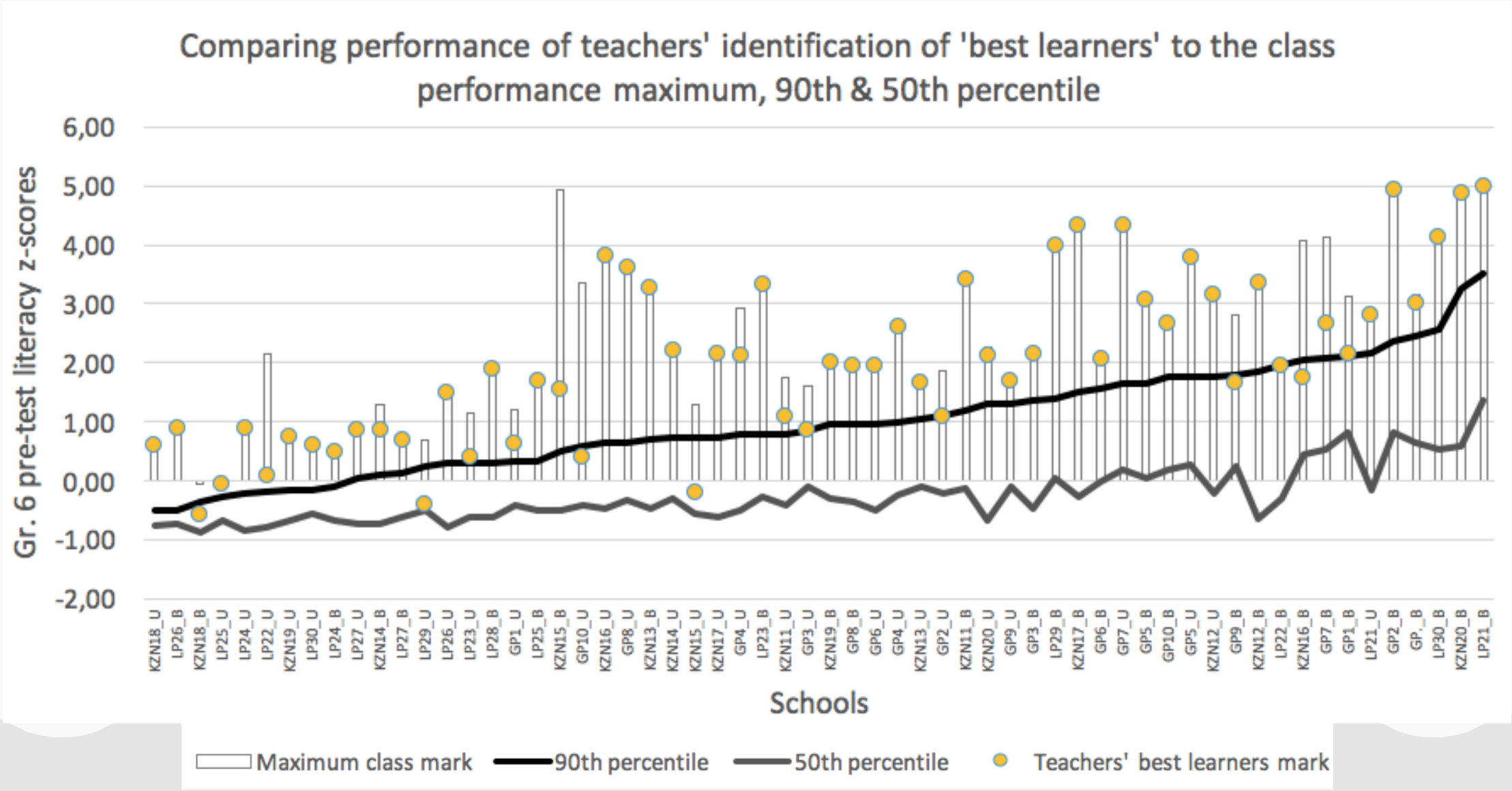
WHERE TO FROM HERE?

- Interviews with learners, parents and teachers to try to understand why some learners have more perseverance and higher aspirations than others

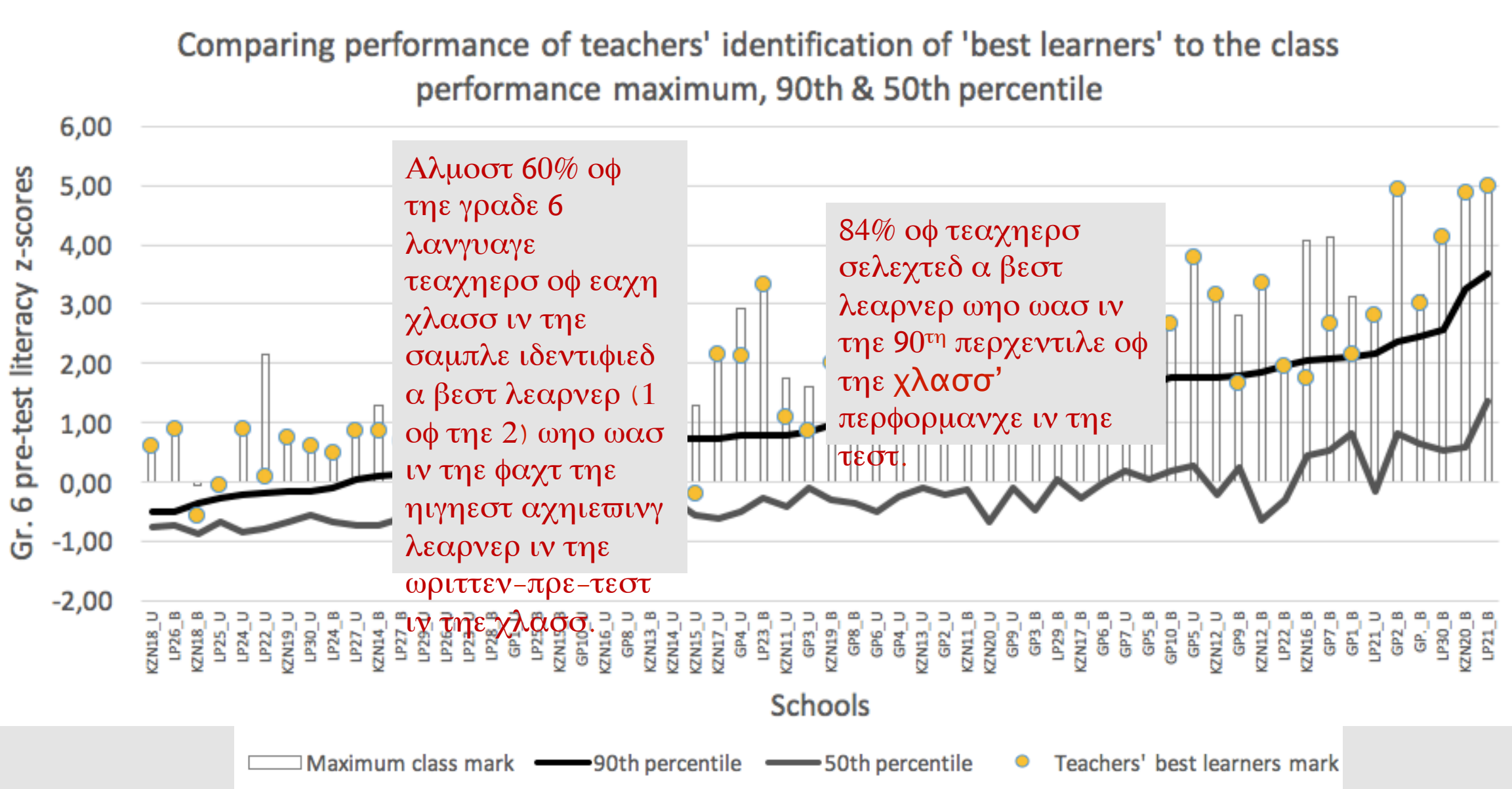
- Policies to foster perseverance at the school level

THANK YOU

DO TEACHERS RECOGNISE TOP PERFORMERS?



DO TEACHERS RECOGNISE TOP PERFORMERS?



Αλμοστ 60% οφ τηε γραδε 6 λανγυαγε τεαχηερσ οφ εαχη χλασσ ιν τηε σαμπλε ιδεντιφιεδ α βεστ λεαρνερ (1 οφ τηε 2) ωηο ωασ ιν τηε φαχτ τηε ηιγηεστ αχηιεωινγ λεαρνερ ιν τηε ωριττεν-πρε-τεστ ιν τηε χλασσ.

84% οφ τεαχηερσ σελεχτεδ α βεστ λεαρνερ ωηο ωασ ιν τηε 90^{τη} περχεντιλε οφ τηε χλασσ' περφορμανχε ιν τηε τεστ.