

Introduction

- The process of adapting an instrument across countries/cultures involves translation, back-translation, feedback from expert groups, and testing adaptation.^{1,2}
- However knowledge gaps still remain on how difficulties in adaptation are identified and resolved.
- The **Early Development Instrument (EDI)** is a 103-item, teacher-completed, population-based checklist that is used internationally to assess children's developmental health at school entry across five domains (physical health and well-being, social competence, emotional maturity, language and cognitive development, and communication skills/general knowledge).³

Purpose

- To compare adapted versions of the EDI to determine which items cause adaptation challenges and examine the cause for these challenges.

Design and Methods

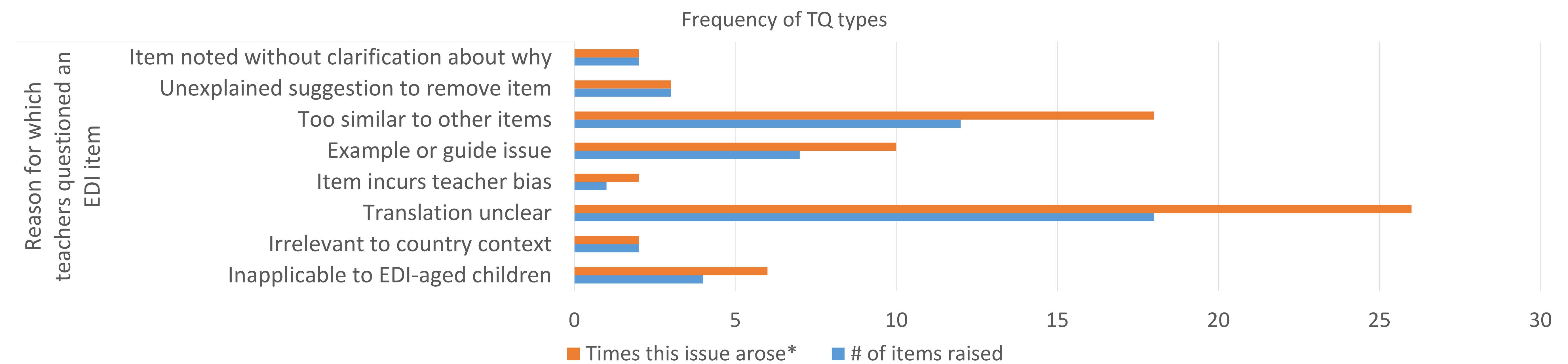
- Quasi-qualitative design** to assess the association between item difficulty at training and psychometric performance, and the association between translation documentation and adaptability.
- Descriptive analyses of item-level data** to draw connections between items that posed difficulty.
- Samples:** Notes taken during technical training sessions for EDI pilot implementations; translation and back translation notes; psychometric data from **7 countries**

Evaluations:

- Low reliability (LR):** Items with a corrected item-total correlation <0.2
- Back-translation (BT):** items translated incorrectly, or require clarification
- Teachers' Queries (TQ):** items raised in teacher trainings were categorized thematically. Items were sorted into eight broad categories according to the reason for which teachers questioned the item, for example, poor translation, a need for a Guide explanation or example, or lack of relevance to country context.

Key Findings

Type of queries raised about items during teacher training



*(sum of number of issues x number of countries issue was raised in)

Variation between countries on challenging items

Of the 110 items evaluated for TQ and BT, and the 103 items evaluated for LR, 54.7% of TQ items, 57.3% of BT items, and 45.4% of LR items were raised in only one EDI version. The rest of the items raised were an issue for multiple versions.

EDI items creating the most difficulty during adaptation

Most challenging items during adaptation by challenge type and number of versions	
Item	Main type of difficulty raised (# of versions)
A7 (Would you say that this child shows an established hand preference (right vs. left or vice versa)?)	LR (5)
A10 (How would you rate this child's ability to manipulate small objects?)	BT (4)
B16 (Would you say that this child is able to read complex words?)	TQ (4)
B36 (Would you say that this child demonstrates special skills or talents in arts?)	TQ (3)
B40 (Would you say that this child demonstrates special skills or talents in other areas?)	TQ (3)
C38 (Would you say that this child bullies/is mean to others?)	BT (4)
C51 (Would you say that this child seems to be unhappy, sad or depressed?)	TQ (4)

Conclusion

Knowing which EDI items were brought up in multiple countries during psychometric testing, back translation or teacher training can provide guidance for areas requiring special attention in future EDI translations and trainings. This can support the adaptation of similar items which may prove particularly challenging in other surveys or tests used internationally.

References

- International Test Commission (2005). International Guidelines on Test Adaptation. [www.intestcom.org]
- Offord Centre for Child Studies (2013). Early Development Instrument International adaptation Protocol.
- Janus, M., et al. (2007). The Early Development Instrument: A Population-based Measure for Communities A Handbook on Development, Properties, and Use. Offord Centre for Child Studies. Retrieved from <https://edi.offordcentre.com/resources/bibliography-of-the-edi/>