TREND MEASUREMENT IN INTERNATIONAL ASSESSMENT SURVEYS

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LINGUISTIC QUALITY CONTROL

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- Based in Brussels, Belgium and Philadelphia PA, USA
- Language services for multilingual, and multinational tests, assessments, and surveys
- A network of 220 linguists in over 75 countries
- Active membership ITC, ESRA, WAPOR, AAPOR, ATP, EMA, CSDI

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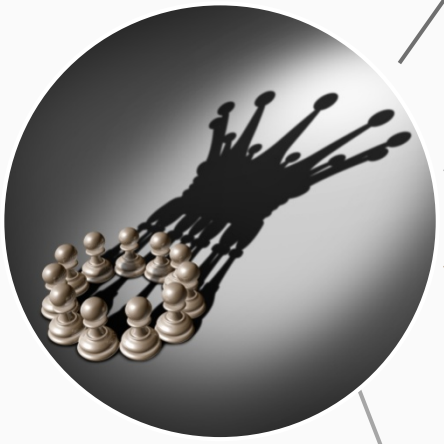
- OECD: PISA, TALIS, AHELO, PIAAC, E&S ONLINE
- UNESCO: LAMP, WEI, LMP (with ACER)
- EU-OSHA: ESENER-2 (TA, Adjudication, Documentation)
- EU-FRA: MIDIS II (TA, Adjudication, Documentation)
- IEA: PIRLS, TIMSS, TEDS-M, ICCS, ICILS
- World Bank: STEP, AES
- EU: ESS, SHARE, INVEDUC



A. Source Optimization

- **A1** controlled writing
- **A2** file preparation: parsing, segmentation, locking untranslatable content
- **A3** Translatability Assessment
- **A4** create project-specific rules

B. Preparation of Translation & Adaptation Process

- **B1** create glossaries
- **B2** create style guides
- **B3** create language-specific rules
- **B4** translation & adaptation notes
- **B5** trend mgt (content transfers)
- **B6** monitoring tool, documentation
- **B7** train translators (& verifiers)

C. Translation and Adaptation Process

- **C1** double or single translation
- **C2** reconciliation
- **C3** (team) adjudication
- **C4** consultation (domain experts)
- **C5** proofreading

D. Linguistic Quality Control Process

- **D1** automated checks
- **D2** translation verification
- **D3** errata and updates mgt
- **D4** review of verification feedback
- **D5** post-verif final checks
- **D6** reports, updated TMs, post mortem

Trend Measurement

- Surveys aim at collecting data: knowledge, skills, competences, background information, etc.
- If periodical data collections are planned, it is usually of interest to also measure change over time.
- So items that have been administered in the past are administered again (= **trend items**), usually in conjunction with newly developed items.

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Theory vs. Practice

- if you want to measure change, don't change the measure
- Exceptions, however, might be necessary:
  - Questions can become outdated.
  - Errors undetected due to poor item functioning
  - Change in survey or test delivery mode

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Example

Following comment by Japanese national team, item developers decided the trend item could probably (*) be “saved” with an edit in stimulus (wording of item unchanged).
(*) Subject to confirmation from FT data

PISA 2015

Magnetic Hovertrain
Question 2 / 2

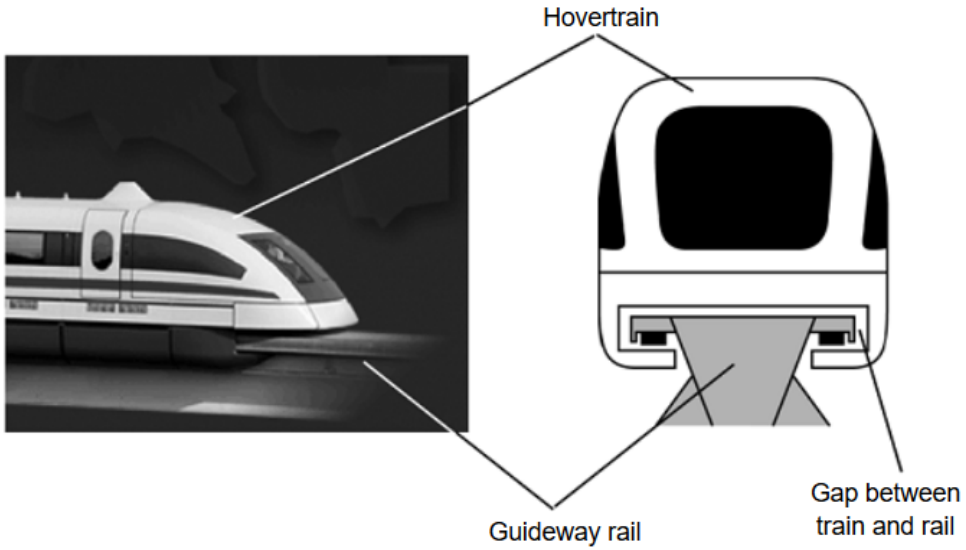
Refer to "Magnetic Hovertrain" on the right. Type your answer to the question.

A journalist wrote that "A Maglev train travelling at 500 km/h would pass by silently as there is no air resistance".

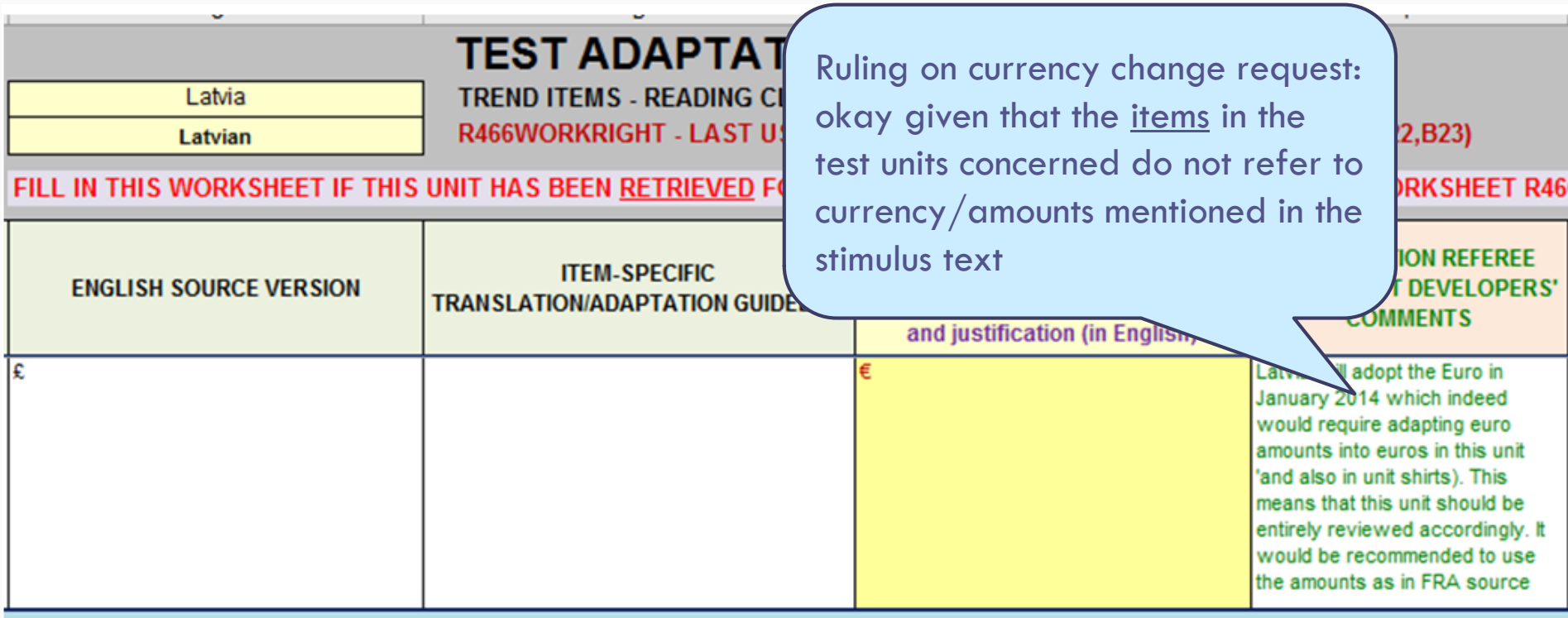
Do you agree with the journalist's statement? Explain your answer.

MAGNETIC HOVER

Magnetic hovertrains (Maglev trains) travel at speeds that can exceed 500 km/h. Maglev trains are operated by electromagnets that are on the train and in the guideway rails (tracks) The electromagnets make the trains hover about 1 cm above the guideway rails. Other electromagnets cause the trains to move forward along the guideway rails.



Example



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Example

PISA approach: generally accepted to change spelling in trend items when a country has enacted a spelling reform

ITEM-SPECIFIC TRANSLATION/ADAPTATION GUIDELINE	REQUEST FOR CHANGE VERSUS ARCHIVE VERSION: Description of desired change (in target language) and justification (in English)	TRANSLATION REFEREE AND/OR TEST DEVELOPERS' COMMENTS	VERIFIER INTERVENTION
Adaptation to new Portuguese orthography	Replace optimismo by otimismo	OK (change for new spelling rules agreed in PISA 2012 for trends)	OK

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Theory vs. Practice

- Or, as always, someone, somewhere, think they know better and want to make a change, or a new team takes over the survey
- Whatever the reasons, design strict procedures to filter and control changes in trend content, so that even the tiniest edit is clearly documented and its effect can be tracked

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Example

PISA approach: for 'outright errors': if item was dodgy in previous cycle, it is normally corrected in current cycle. If it was not dodgy, decided on a case-by-case basis. Typos are generally corrected.

ENGLISH SOURCE VERSION	ITEM-SPECIFIC TRANSLATION/ADAPTATION GUIDELINE	REQUEST FOR CHANGE VERSUS ARCHIVE VERSION: Description of desired change (in target language) and justification (in English)	TRANSLATION REFEREE AND/OR TEST DEVELOPERS' COMMENTS
*Stationery, print and promotion products, technology supplies. See the general terms of the offer.		Last word in Lithuanian vertion contains spelling error, letter "ė" missing. Should be: taisyklės	Ok to correct spelling mistake

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Example

- Recent case: DNK asked "*We have decided to change the sentence*
- *"click on the NEXT arrow"*
- *From*
- *"klik på NÆSTE-pilen…"*
- *To*
- *"klik på pilen "NÆSTE"…."*
- *as it seems more idiomatic."*

PISA approach for 'preferential changes': generally rejected. After consulting the linguist and the referee, it was decided to reject this change. It's true that it is more idiomatic, but the "old" version is not per se incorrect..

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IEA Studies: a different approach

IEA approach

Linguists are asked to identify the differences in trends without expressing their opinion or indicating the type of difference:

2011 version: line break 2016 version: no line break
2011: full stop at the end 2016: no full stop at the end
2011: nel caso che avesse avuto bisogno di qualcuno che badasse a lei. 2016: nel caso avesse avuto bisogno di qualcuno che badasse a lei

We're not sure about the adjudication process (perhaps at the level of countries), but anyway "even the tiniest edit is clearly documented and its effect can be tracked"

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Theory vs practice

- In an ideal world, requests for changes to trend content should always be supported by data.
- If an item shows diff
  there is a good rea
  cultural adaptations
  alternative wording
- Or, one could argue that once an item seems to have worked well, even correcting a residual error is an unnecessary risk.

But it might be difficult to convince a national team that a clearly identified error should preferably remain uncorrected and be kept for the next administration"

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Open questions

- Under what circumstances can a test or survey question be regarded as obsolete?

It would depend on the situation: a scientific fact, or a spelling changes in country would merit a change, currency change would affect the value and therefore the numbers involved.

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Open questions

Excerpt from PISA2015 Verification Report:
The understanding of the "trend" procedure and the reasons for the "no changes between cycles" policy varied considerably across countries.

- Some countries understood the process and requested either no changes at all or a limited number of justified changes (i) to correct outright errors; (ii) as a reaction to an item bias detected in previous cycles (e.g. Finland, Colombia).

- Other countries requested a large number of changes that seemed mostly preferential (Country X, Country Y). Such requests typically originated from countries where the national team had changed since the previous cycle, as was the case with Country X.

- For a small group of countries, the trend materials were reviewed perfunctorily, as obvious errors were overlooked in items that had been dodgy in the previous cycle (e.g. Country Z).

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Open questions

- What are the risks involved when trend material is 'opened' for review?

Note on 'centralized' trend management (e.g. PISA2015):
Countries do not have editing access to their trend materials (test units and questionnaires); they have the right to review these materials and make requests for changes, which are then negotiated. Agreed changes are implemented by the international project team, not by the countries

(considerably less risk than when countries edit trend materials, which are then submitted for verification)

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Open questions

- Is it sensible to transfer known errors across survey cycles?

Although difficult to get across as an idea, this would be a necessary by-product of the "strictest" possible approach to trend management, consisting of **"No changes whatsoever to trend items, under no circumstances"**. With such an approach, trend items would not be opened for review at all (cf. previous slide).

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Open questions

- Who should be assigned with the role of determining whether a change is acceptable to make or not?

PISA approach: the "Translation Referee" advises countries on translation plans, reviews all verification feedback and negotiates with countries on crucial issues until corrective action is agreed – liaising with item developers as needed.

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Open questions

- Does the shift to a computer-based or online environment offer a new paradigm for content management over time, i.e. to what extent can documentation of changes to trend items be automated?

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Open questions

- In the context of large-scale multilingual, multinational and multicultural assessments where no
re
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organise
single country-independent organization (centralized management) with a view to controlling the urge to revise materials?

See previous slide on 'centralized' trend management in PISA2015:
- Considerably less risk than when countries are allowed to edit trend materials (even if they are then submitted for verification)
- Considerably more work for the international project team

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Conclusion

- Very thorough documentation of any changes made to trend items -- this way results can be analysed

- A "centralized" trend process is not easy, and tends to be costly. However, it helps immensely in protecting trend materials.

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THANK YOU!

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