Reflections on the translation and adaptation procedures for problem solving in ALL

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(Session: Translation and Adaptation)

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ALL Problem Solving Team:

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…and many others

1. Problem solving in ALL

   - Definition

   - The instrument

2. Translation and adaptation for problem solving

   - Solution steps

   - Task descriptions

   - Training and guidelines

   - Verification and documentation

3. Reflections and lessons learnt

Adult Literacy and Life Skills Survey (ALL):

- International comparative assessment of adult population with a direct assessment of skills:
  - → Prose literacy
  - → Document literacy
  - → Numeracy
  - → Problem solving (international option)

Problem Solving

→ goal-directed thinking and action in situations for which no routine solution procedure is available.

Analytical problem solving

→   involves cognitive operations such as

- Defining goal(s)
- Searching, structuring, interpreting and integrating information
- Reasoning
- Planning, executing and evaluating solution steps

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5. Plan your party

! You have decided to throw a going away party for your friends, family and neighbours. A barbecue seems like the perfect thing, and your friend John has promised to let you use his huge garden for this.

First of all, you make a list of some things you need to do soon:

a	Set a date for the party.
b	Send out invitations.
c	Ask your friend Lisa, who works at a supermarket, if she can arrange to buy drinks at a special discount price.
d	Decide on whom you are going to invite and make a list.
e	Print the invitations on your favourite apricot-coloured paper.
f	Ask John when you could use his backyard for your barbecue.

You can do these things in different orders. However, some tasks only make sense when other tasks have been completed first.

Question 5.

? In which order should you accomplish the tasks?
Please select <u>all</u> feasible sequences.

A	f - a - d - b - e - c
B	a - d - e - b - c - f
C	d - f - a - e - b - c
D	f - c - a - d - e - b

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Aim of translation and adaptation:

To produce a cognitively equivalent measurement instrument in the different assessment languages and cultures!

The challenge for the development team:

How to equip the translators with the necessary understanding of the measurement instrument?

What kind of documentation and guidance can we provide to aid the translation process?

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Measures to support translation process:

1. Solution steps documentation
2. Task descriptions
3. Guidelines and training
4. Verification

Question 5. Plan your party.

Comments

Each order is checked sequentially to see if the order makes sense. Start with the first item of the sequence and compare it to each other item to see if any other item needs to be done before. Repeat for all subsequent items, and work through the entire sequence. Each reasoning step is based on the comparison between two items in the sequence to determine if one has to be done before the other. If no conflict is detected, the sequence is correct. Repeat for all response alternatives.

Solution Steps

	Response alternative	Item considered	Conclusion	Inference on which conclusion was based	Goal state?
1	A	f	$f < a$		
			Units in WM $f < a$	f before a: no conflict	9
2	A	f	$f < d$		
			Units in WM $f < (a,d)$	f before d: no conflict	9
3	A	f	$f < b$		
			Units in WM $f < (a,d,b)$	f before b: no conflict	9
4	A	f	$f < e$		
			Units in WM $f < (a,d,b)$	f before e: no conflict	9
5	A	f	$f < c$		
			Units in WM $f < (a,d,b,c)$	f before c: no conflict	9
6	A	a	$a < d$		
			Units in WM $f < (a,d,b,c)$ AND $a < d$	a before d: no conflict	9

Too formal!

Too complicated!

Too time-consuming!

Structure of task description:

1. Brief description of task
2. Problem Space
   a. Initial state
   b. Operators
   c. Goal state
3. Why is that particular solution correct?
4. Special hints for the translators

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Why is that particular solution correct?

Order A is not feasible: You need to print out the invitations before you can send them, so "b before e" disqualifies this sequence.

Order B is not feasible: You have to ask John when you can use his garden for the barbecue before you can set the date for the party, so "a before f" disqualifies this sequence.

Order C is feasible: First decide on your guest list (d), then ask John when you can use his backyard (f), then set the date for the party (a). Then you print out the invitations (e) and subsequently send them (b). Lastly, consult Lisa about obtaining drinks at a discount price (c).

Order D is feasible: First ask John when you can use his backyard (f). Then consult Lisa about obtaining drinks at a discount price (basically this can be done at any time whatsoever) (c), set a date (a), decide on your guest list (d), print invitations (e) and send them out (b).

Special hints for the translator

- Adapt the names Lisa and John.

- Barbecue may be changed to something more appropriate if necessary.

- In the question, the word *feasible* is crucial; note you should not use the same wording that was previously used for "…some tasks only *make sense* when other tasks have been completed first."

etc.

Main contents:

- Explanation of the structure of the test material and scoring guides

- Introduction of task descriptions

- Recommendation to use a double-translation and reconciliation procedure

- Indication of some general translation principles

- Request for documentation on problems and adaptations made

Training for Problem Solving

(1st wave of ALL countries)

- Item-by-item
- Focus: *understanding how the items work.*
- Translators were encouraged to work through the items in both the source version and in their translations
- Harmonisation and consistency needs
- Format issues

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- It was required that national instruments be sent to the ALL Management Group to be reviewed and approved. This involved the consultation of:

  – a translator not previously involved in the process and contracted by the ALL Management Group

  – a domain expert

  – one member of the ALL Management Group who checked and liaised until survey material was signed off

- Pilot

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- Essential to provide information on item structure and underlying logic

  → need to work on a more translator-friendly format

- Face-to-face training sessions are most helpful

- Recommendations are nice

  … but they often don't work…

  → need to be part of the required procedure / deliverables

- Documentation is essential
    - → More systematic documentation needed both on procedures as well as on item-specific translation challenges, concrete adaptations etc. – also for the item development team!
    - → Documentation could be improved by providing an appropriate template

Thank you!

Questions and comments welcome…
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