

# Training translation students to evaluate CAT tools using Eagles: a case study

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# Introduction

## Motivation

Alumni soon being considered as CAT tool experts in their new jobs (often internships)

## Skills needed:

- Practical knowledge about CAT tools
- Evaluation skills

# Evaluation in the translator's training

- Not generally identified as one of the necessary skills or competences that students need to acquire during a typical translation technology course
- But: Pym (2012) : “ability to evaluate the suitability of a tool in relation to technical needs and price”
- Convey learning and assessing techniques to students rather than training on specific industry tools

# CAT Course



# CAT Course - Facts

- Optional subject within the MA in Translation at the University of Geneva
- 1 semester duration – 5 ECTS
- 60-65 students
- 1 lecturer, 1 lab assistant

# CAT Course - methodology

- 1 hour theoretical course:
  - A. Introduce the students to CAT tools
  - B. Focus on translation memory systems (TMS)
  - C. CAT tool evaluation: applied to TM systems
- 1-2 hours in the lab room:
  - A. Translation kits
  - B. Evaluation assignment

# CAT Course: focus on TMS

Basic TM system functionalities:

- Translating with a TM system
- Alignment
- Translation memory management
- Terminology management
- Project creation and management



# CAT Course: hands-on TMS

Two popular commercial tools used:



# CAT Course: TMS assignment

Two assignments: Real case scenario using both systems (SDL Trados 2011 and Multitrans Prism)

Translation toolkit:

- Instructions
- Reference files (to be aligned)
- Translatable file (.docx)

Deliverables:

- Invoice
- TBX file
- TMX file
- Translated file (.docx)

# CAT Tool Evaluation



# EAGLES – 7-step recipe

Why EAGLES?



- EAGLES = Expert Advisory Group on Language Engineering Standards
- European Project (started 93 - report 96)
- Several deliverables, including:
  - Seven-step recipe (Geneva, 1999)
  - Aim: provide an evaluation framework for natural language processing systems

# Seven steps

1. Define the aim of the evaluation
2. Elaborate a task model
3. Define top level quality characteristics
4. Produce detailed requirements for the system under evaluation
5. Devise the metrics to be applied to the system for the requirements produced under 4
6. Design the execution of the evaluation
7. Execute the evaluation

# Case study



# Case study

## CAT tool comparison task

- Two CAT tools evaluated and compared.
- EAGLES 7-step recipe
- Report
- Oral presentation
- Real case scenarios
- Group activity

# How to explain the 7-step recipe

- Determine a precise context of use
  - «there is no such thing as a best system, but a best system for a particular situation» (Rico, 2001)
  - Context oriented approach
- Give example for the task model
  - Functionality: core characteristic evaluated
  - Ex: TM → provide previously translated sentences
- Elaborate a quality model
- How to chose the metrics



# Define the metrics

- Different types: yes/no; scale; time, success rate, error rate
- Important: avoid subjectivity → determine metrics and scales

- Example: term retrieval

Shortcut -> good  
1 click -> satisfactory  
Max. 2 clicks -> satisfactory  
> 2 clicks -> not satisfactory

Points	Results
3	Good
2	Satisfactory
1	Not satisfactory
0	Not existant

# Type of evaluation

- Feature inspection: checklist
  - mostly yes/no
- Benchmarking testing: the performance of individual functions, system modules or the entire system can be evaluated
  - only on one selected feature according to chosen user-context

# Case study

## Real case scenarios: 4 choices

1. Newly graduated freelance translator: 7/11 groups
2. Experienced freelance translator (15 years) without CAT tool experience: 3/11 groups
3. In-house translator (10 years same company) so far using SDL Trados : 1/11 group
4. Translation support manager in an International Organisation: 0/11

# TMS combination

System 1	System 2	Number of groups	Functionality chosen
SDL Trados 2011	Wordfast Anywhere	3/11	Alignment (2) Terminology sharing
SDL Trados 2011	Wordfast Classic	2/11	Alignment Terminology
SDL Trados 2011	Wordfast Pro	1/11	Terminology
SDL Trados 2011	Across	1/11	Translation
SDL Trados 2011	Déjà Vu	1/11	Translation
Multitrans Prism	Wordfast Anywhere	1/11	Exchanging TMs
Multitrans Prism	Wordfast Pro	1/11	Alignment
SDL Trados 2011	OmegaT	1/11	Alignment

# General outcome

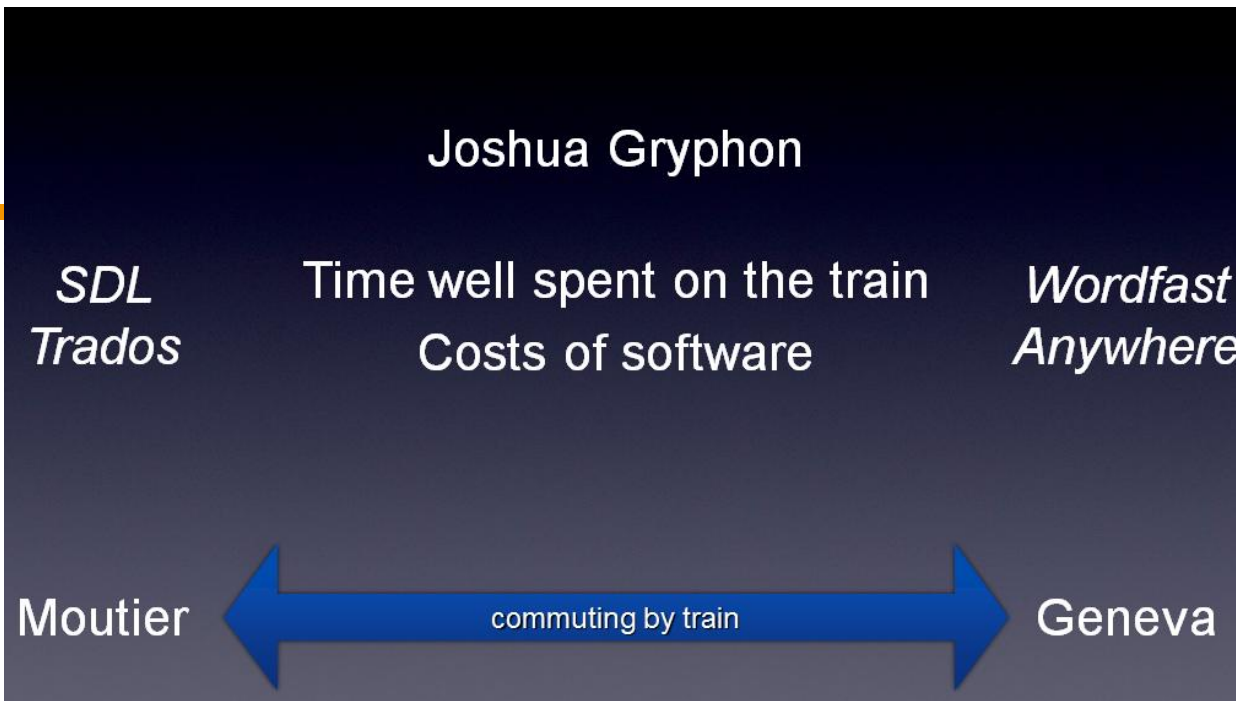
All participants managed to finished the task

11 groups of 4-5 students

11 reports – around 10 pages

Oral presentations were clear and followed the guidelines (5 minutes time constraints)

# Example



	<b>Time spent for alignment</b>	1-5	20+ min: 1 16 – 20 min: 2 11 -15 min: 3 5 – 10 min: 4 <5 min: 5
<b>Alignment functionality</b>	<b>fast Internet</b>	1, 3, 5	No functionality: 1 Partial functionality: 3 Full functionality: 5
	<b>slow Internet</b>	1, 3, 5	No functionality: 1 Partial functionality: 3 Full functionality: 5
	<b>no Internet</b>	1, 3, 5	No functionality: 1 Partial functionality: 3 Full functionality: 5

# Example : result tables

Functionality	Wordfast Anywhere	Multitrans Prism
Exporting in TMX	yes - 1 point	yes - 1 point
Number of clicks needed to export a TM into .tmx	14 clicks - 0 point	5 clicks - 1 point
Time needed to export into .tmx	5 minutes 19 seconds - 0 point	30 seconds - 1 point
Sharing function exists	yes - 1 point	yes - 1 point
Number of clicks needed to share TM	9 to 10 clicks - 0 point	5 clicks - 1 point
Time needed to share a TM	56 seconds - 0 point	30 seconds - 1 point
FINAL SCORE	2 points	6 points

Trados	Déjà Vu
3	3
3	1
3	2
3	3
3	2
3	2
3	3
1	1
1	2
<b>Total de points</b>	<b>26</b>
	<b>21</b>

# Main difficulties

- EAGLES/ISO Terminology and concepts
  - Some ambitious evaluation plans → superficial evaluations
  - Subjectivity when choosing the final scale and interpretation
- Clarification of certain aspects of EAGLES (notably the classification into characteristics)
- More concrete examples needed

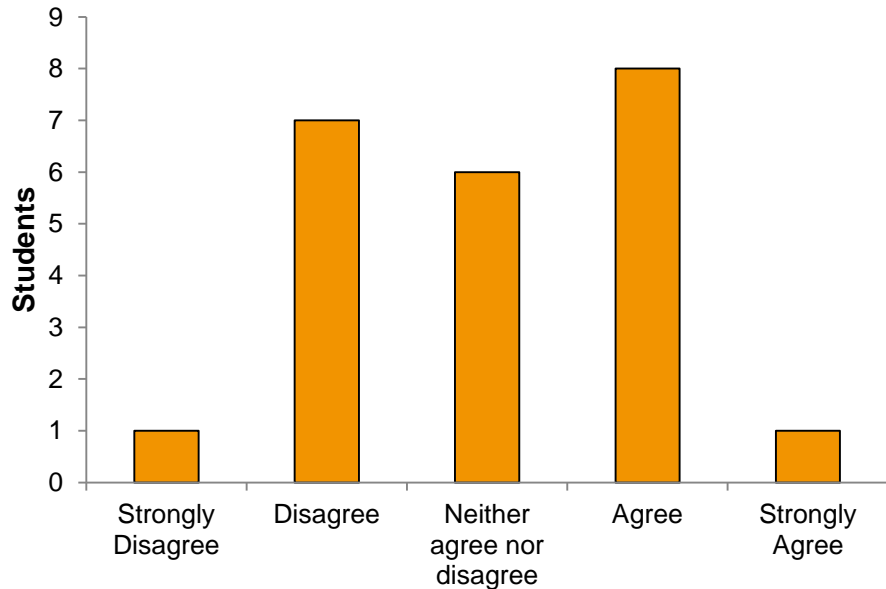


# Results from the questionnaire

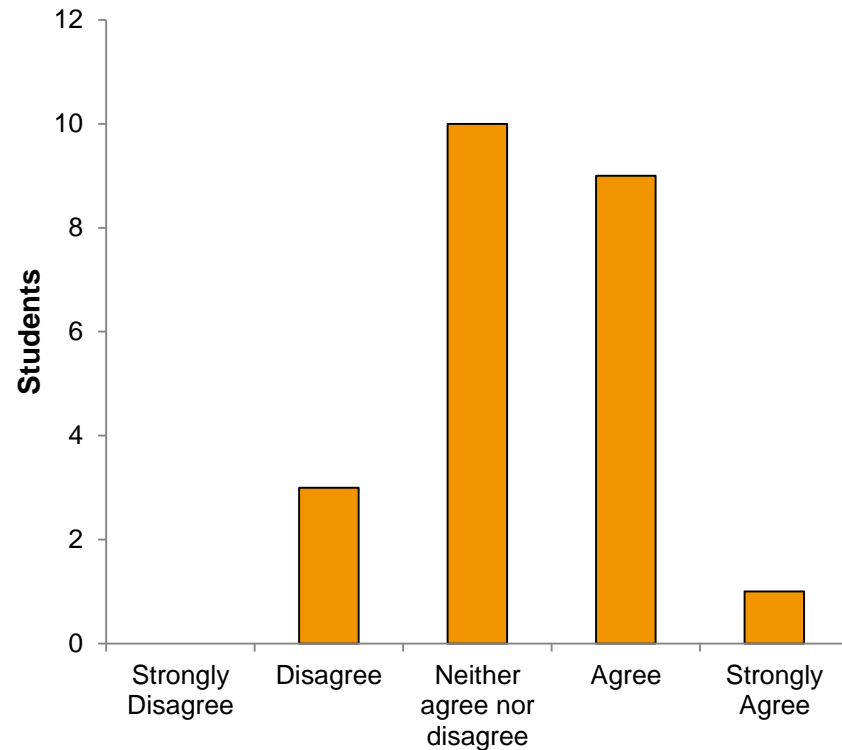


# EAGLES understanding and implementation

**The EAGLES seven steps recipe was easy to understand and implement**

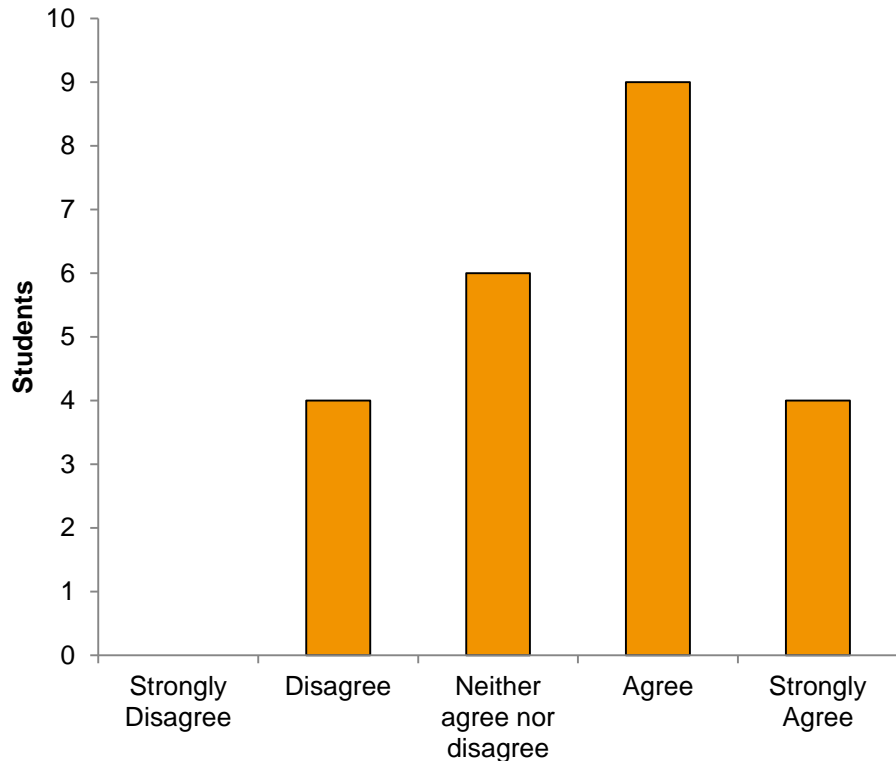


**The EAGLES methodology helped me to establish my own evaluation criteria**

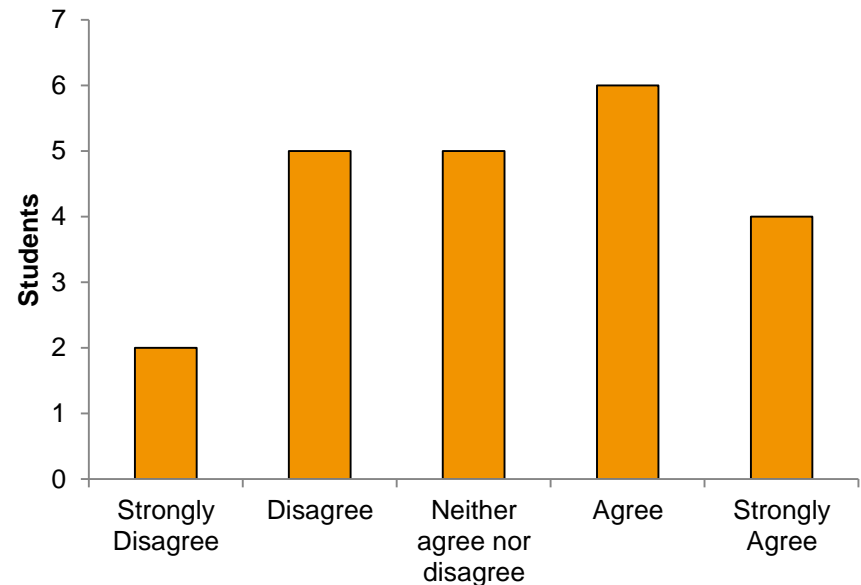


# Attitude towards the task

I enjoyed the scenario driven evaluation task we had to implement during the CAT course.

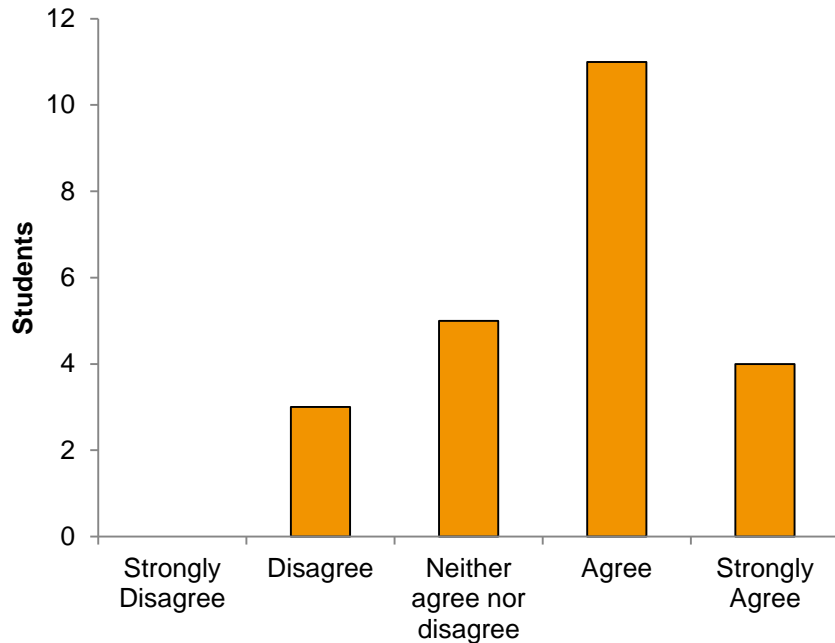


This activity represented an excessive workload compared to the other assignments fulfilled during the CAT course.

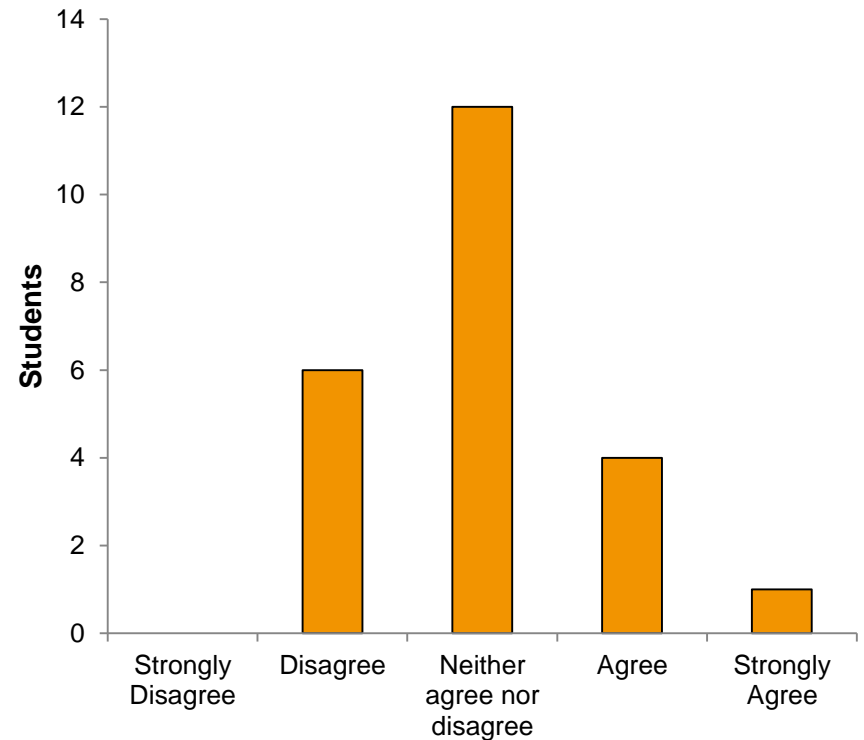


# Future use

I think that the evaluation methodology learnt during the CAT course will be useful in my future career as a translator.

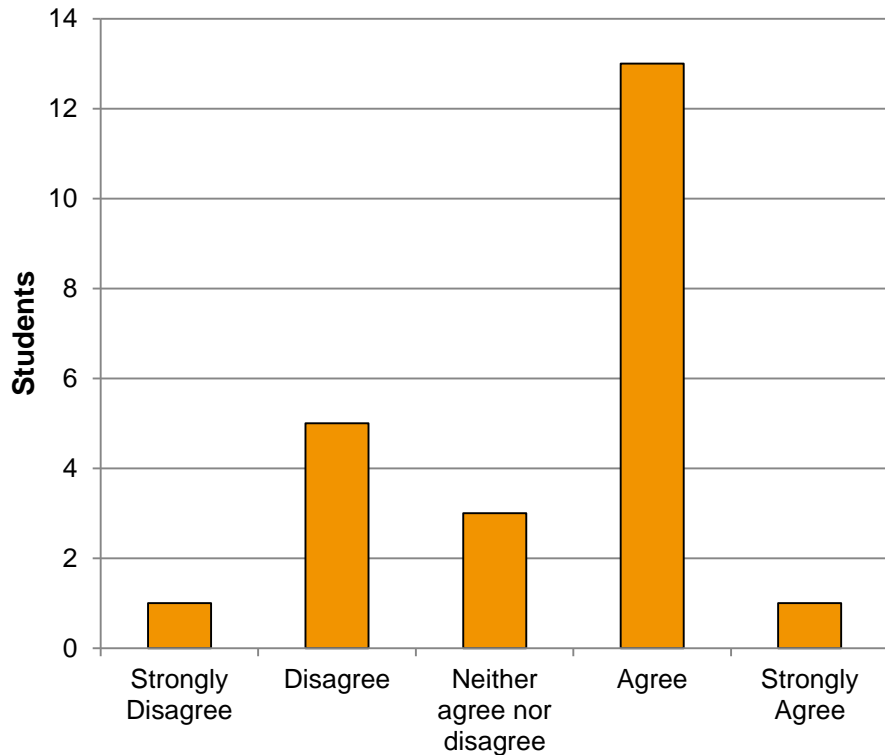


In my professional life, I will use the EAGLES method to design an objective CAT tool evaluation before buying a CAT system.

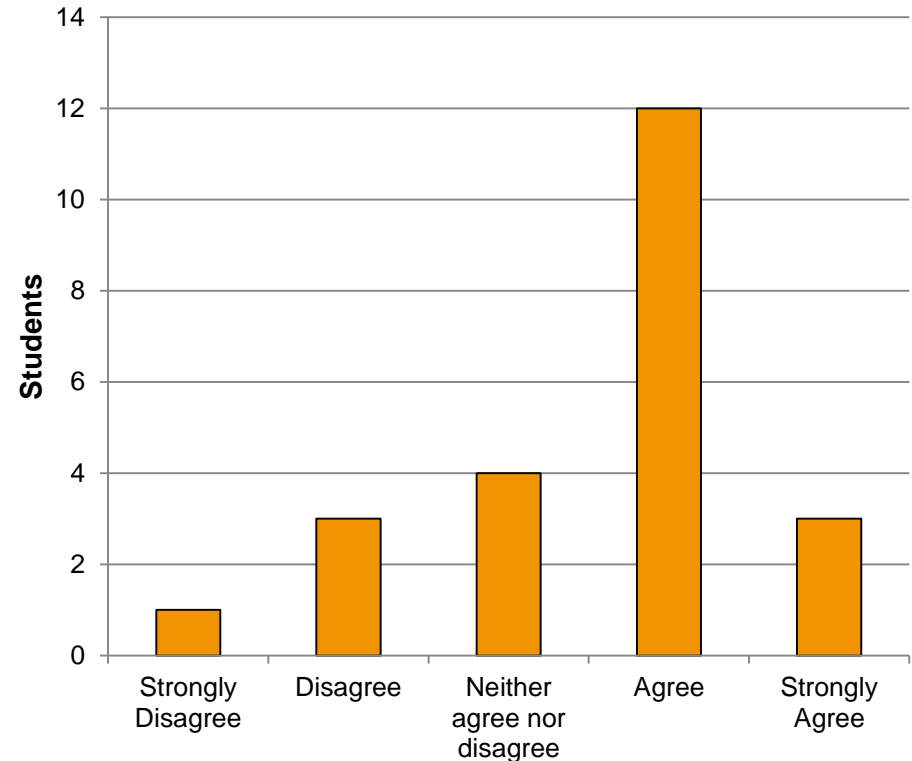


# EAGLES as part of the MA CAT course

I would recommend the lecturers to continue including this evaluation method in the forthcoming CAT course.



I think that software evaluation skills should be part of the translator's training curricula.

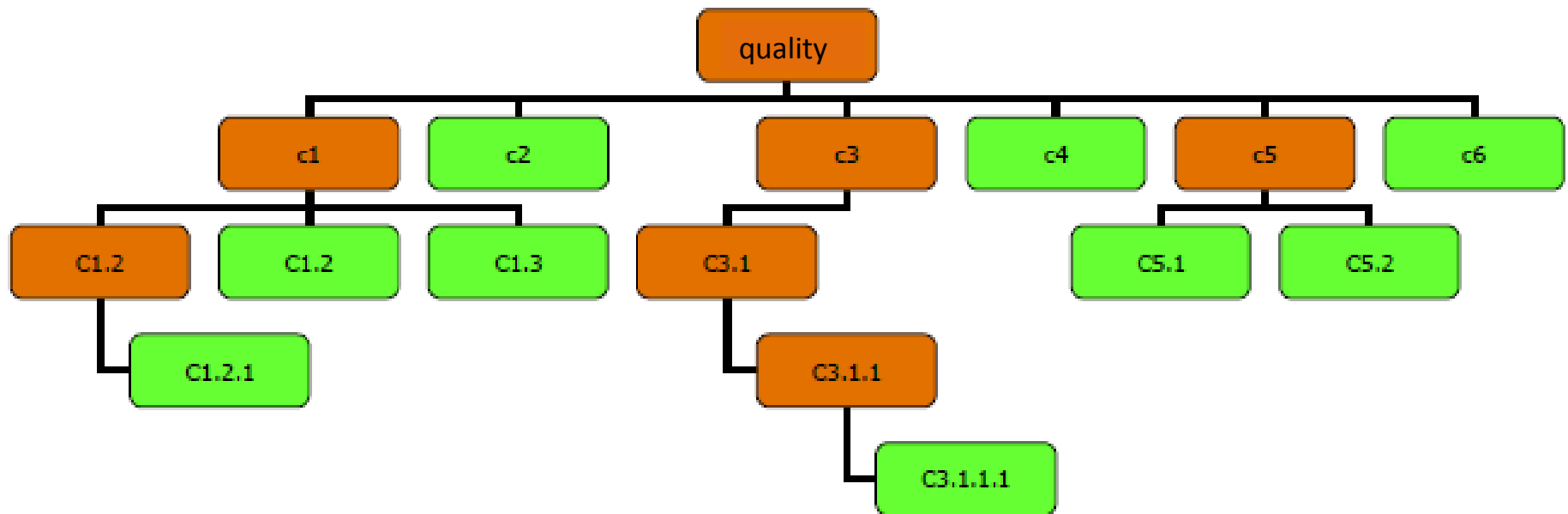


# Discussion and future work

- Clarification of certain aspects of EAGLES (notably the classification into characteristics)
- More concrete examples needed
- Predefined set of pre-defined scenarios ?
- Time-constraint: reflects real life

# Better introduction of quality model

- Explain the ISO quality characteristics and sub-characteristics with an every-day life example



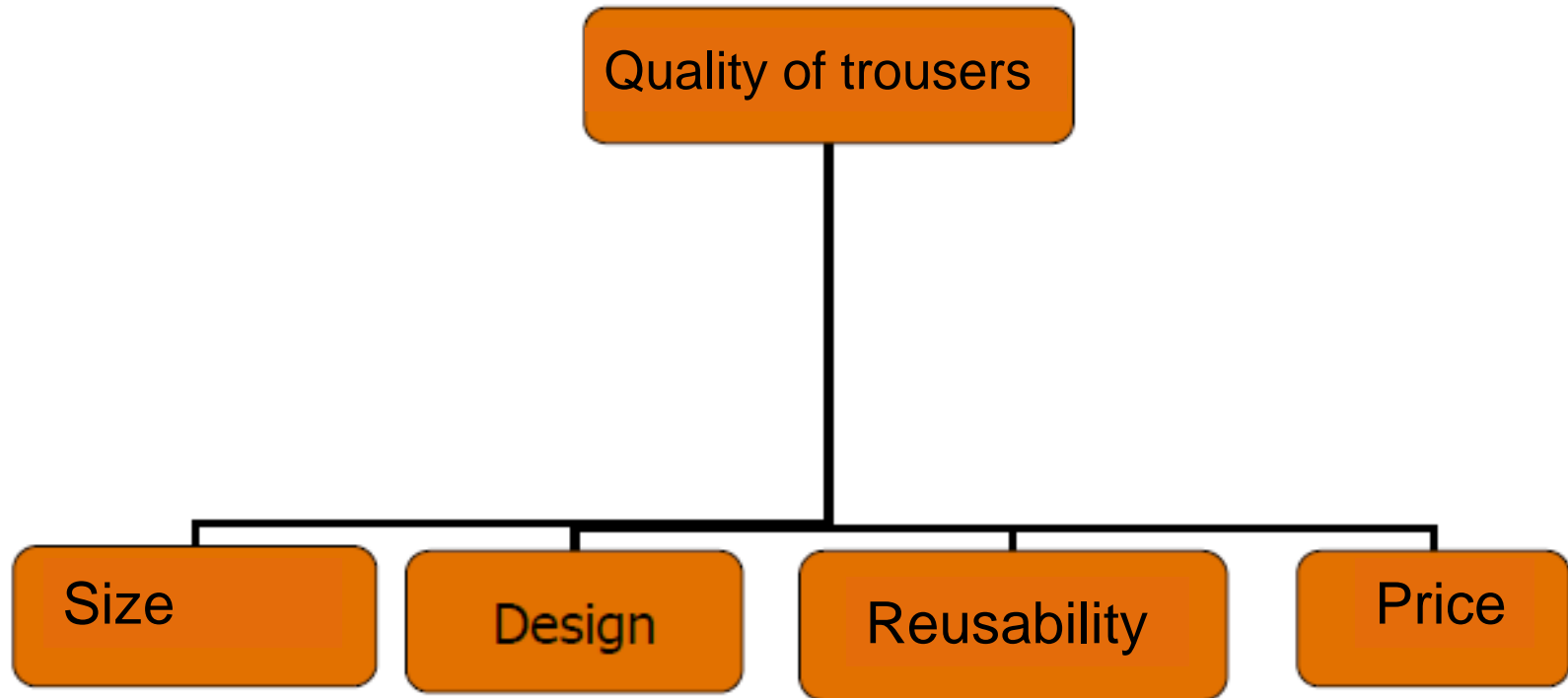
# Pre-purchase evaluation for a pair of trousers

## Context:

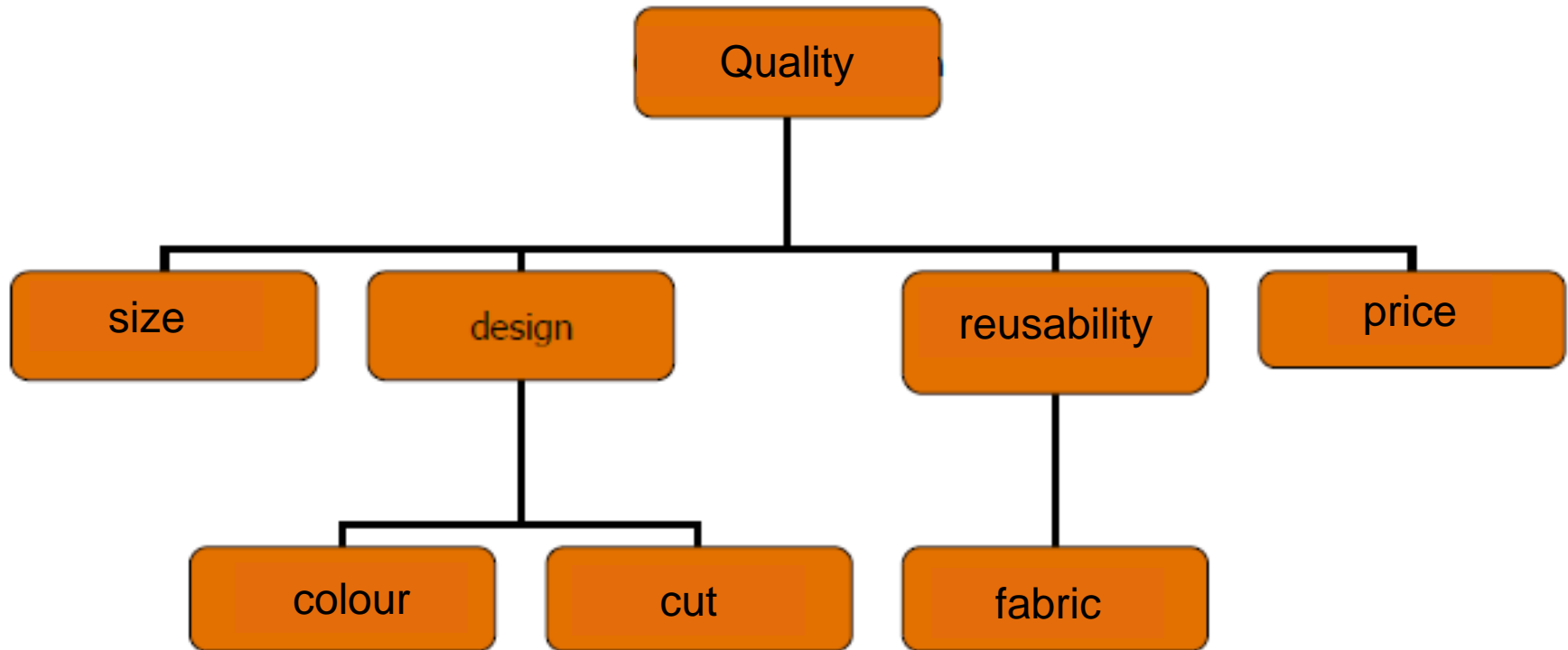
- Man
- Size: 1m90
- Usage: wedding in summer
- Specific requirements:
  - be able to reuse in future for other occasion
  - budget: maximum 150 CHF



# Quality model for pair of trousers



# Quality model – more details



# Conclusion

- EAGLES can be used in a translation training program : Successful completion rate
- Students understood the utility of the evaluation task
- Some improvements have already been implemented

Thank you !

# References

- EAGLES 7 steps (1999):  
<http://www.issco.unige.ch/en/research/projects/eagles/ewg99/7steps.html>
- Cf. references in the paper