APPLYING THE SCIENTIFIC METHOD TO TRANSLATION STUDIES: PROBLEMS AND SOLUTIONS IN RESEARCH INTO TRANSLATION COMPETENCE

Grupo PACTE

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Speakers: A. Hurtado Albir, A. Beeby, W. Neunzig
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TRANSLATION COMPETENCE

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I. INTRODUCTION
OVERALL OBJECTIVE
Acquisition of Translation Competence

PHASES
1st Translation Competence (TC)
2nd Acquisition of Translation Competence (ATC)

RESEARCH
Empirical-experimental
Process and product

6 LANGUAGE COMBINATIONS
CT MODEL (PACTE 2003)

BILINGUAL

EXTRALINGUISTIC

STRATEGIC

INSTRUMENTAL

KNOWLEDGE OF TRANSLATION

PSYCHO-PHYSIOLOGICAL COMPONENTS
II. PROBLEMS RELATED TO EMPIRICAL RESEARCH IN TRANSLATION
Problems in all kinds of empirical research

- Define variables: conceptual and operative
- Define indicators
- Design instruments
- Guarantee viability of the research
  - During the experiment (Are the instruments and experimental tasks adequate?)
  - Does the data (observed tendencies) measure what we want to measure?
Specific problems in empirical-experimental research in translation

• Scarce research tradition lacking points of reference (previous results, instruments, hypotheses, etc.)

• Difficult to apply experimental methods and assure:
  - Ecological validity
  - Experimental economy
Specific problems related to empirical-experimental research in translation

• **Ecological validity**: the subjects aren’t aware of the experiment, the situation for them is as close as possible to what we want to measure, i.e. a real translation situation:
  
  – How can we disguise the situation: translation brief, instructions, payment?
  – How can we collect the data without interfering in the translation process?

• **Experimental economy**:
  – How can we design the experiment so the results are valid and can be extrapolated?
III. PREPARING THE PACTE TRANSLATION COMPETENCE EXPERIMENT
Preparation of the experiment

• Before the experiment:
  – Define type of study
    • Comparison of two representative samples
  – Formulate general hypothesis
    • The degree of expertise of the translator influences the translation process and product
  – Design experimental tasks and instruments
  – Exploratory tests
    • (June 2000-January 2001)
  – Pilot test
    • (February-April 2004)
Methodological consequences of the exploratory and pilot tests (I)

- Data collected and tendencies noted
  - actions, sequences of actions
- **Instruments Tested**
  - Proxy and Camtasia
  - Texts
    - comparability of French German and English texts
    - Need to concentrate on rich points
  - Questionnaires
    - Translation problems (B-A/A-.B)
    - Knowledge of Translation
  - Standardised retrospective interview
  - Direct observation of subjects reduced
Methodological consequences of the exploratory and pilot tests (II)

- Experimental tasks established
  - direct translation (B-A)
  - completion of a questionnaire about the problems encountered in the translation;
  - inverse translation (A-B);
  - completion of a questionnaire about the problems encountered in the translation;
  - completion of a questionnaire about translation knowledge;
  - participation in a retrospective interview.
IV. THE PACTE TRANSLATION COMPETENCE EXPERIMENT
• Who is observed?
• What is observed?
• How is the data collected?
• How is the data represented?
• How is the data analysed?
Who is observed?

- Define the experimental universe
  - Professionals working with foreign languages:
- Establish the independent variable ‘expertise in translation’
  - Two categories of expertise
    - (+) ‘expertise’: Translators with 6 or more years professional experience of translating texts in a variety of fields
    - (-) ‘expertise’: Foreign language teachers with 6 or more years of professional experience, but no experience of translation
- Select the sample
  - Two initial questionnaires:
    - For translators
    - For foreign language teachers
What is observed?

Dependent variables

- Knowledge of translation
- Efficacy of the process
- Decision-making
- Translation project
- Problem-solving
- Use of instrumental resources
  - Variable added during the experiment
What is observed?

Indicators

• Knowledge of translation
  – **Dynamic index and coherence coefficient**
• Efficacy of the process
  – **Total time taken; time taken at each stage of the translation process (orientation, development, revision)**
• Decision-making
  – **Types and sequences of actions**
• Translation project
  – **Dynamic index and coherence coefficient**
• Problem-solving
  – **Nature of problems identified,**
  – **Conceptualization of problems,**
  – **Solving procedure as explained by the subject (subcompetence activated),**
  – **Subject’s degree of satisfaction with the solution found, degree of difficulty of the text**
• Transversal indicator
  – **Acceptability**
What is observed?

• Types of Indicators
  – **Data obtained directly from the data collection instrument**: Total time taken; time taken at each stage, etc.
  – **Data collected and interpreted by PACTE**: acceptability of results, dynamic index, coherence coefficient, sequences of actions, etc.

• Importance of “acceptability”
  This indicator is used to measure all variables
How is the data collected?

Instruments

- **Observation instruments:**
  - **Software:** Proxy and Camtasia
  - Direct observation chart
- **Questionnaires:**
  - Initial questionnaires (translators and teachers)
  - Translation problems questionnaires (BA and AB)
  - Knowledge of translation questionnaire
- **Retrospective interview**
- **Texts:**
  - ‘Rich points’
  - Criteria for acceptability, semi acceptability and unacceptability of solutions
How is the data collected?

Examples of instruments developed:

- Knowledge of translation questionnaire
- ‘Rich points’
How is the data collected?

Knowledge of translation questionnaire

Diagram:
- BILINGUAL
- EXTRALINGUISTIC
- STRATEGIC
- INSTRUMENTAL
- KNOWLEDGE OF TRANSLATION
- PSYCHO-PHYSIOLOGICAL COMPONENTS
How is the data collected?

Knowledge of translation questionnaire

- **Search the literature:**
  - Is there an existing questionnaire we can use?
  - No
- **Decide to construct a questionnaire based on:**
  - 6 categories:
    - Translation and translation competence
    - The translation unit
    - Types of problems
    - Stages in the translation process
    - Methods and procedures
    - The function of the translation brief and the reader
  - 2 approaches:
    - Static translation
    - Dynamic translation
How is the data collected?

Knowledge of translation questionnaire

• Collect items.

• Select items respecting the criteria of Item Response Theory.

• Choose a scale for the subjects to give their opinions on each item.

   Likert Scale

<table>
<thead>
<tr>
<th>I strongly disagree</th>
<th>I disagree</th>
<th>I agree</th>
<th>I strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
How is the data collected?
Knowledge of translation questionnaire

• Exploratory tests to perfect the questionnaire

  – 1st exploratory test:
    • Testers: the other members of the research group
    • Results: seemed to work
  
  – 2nd exploratory test:
    • Testers: 25 3\textsuperscript{rd} and 4\textsuperscript{th} year FTI students
    • Purpose: to eliminate inadequate items (Scale construction theory)
How is the data collected?

Knowledge of translation questionnaire

- **Inadequate items (Scale construction theory)**
  (e.g., when a homogeneous sample gives a bimodal distribution, or a very high standard deviation, or the mode is in the centre and the standard deviation is very low, or many subjects do not answer, etc.)

- **Result: 36 items (6 for each category)**
  - 18 “dynamic”
  - 18 “static”
How is the data collected?

Knowledge of translation questionnaire

- **Pilot test (to prepare the experiment)**
  - **Subjects:**
    - 6 foreign language teachers (EOI)
    - 6 professional translators
  - **Method:**
    - Numerical values given to the replies: I strongly disagree = 0; I disagree = 1; I agree = 2; I strongly agree = 3
    - Sum values of dynamic items and subtract values of static items ($\Sigma^{\text{dyn}} - \Sigma^{\text{stat.}}$) to obtain the index of dynamism.
  - **Result:** No significant difference between groups (slight tendency to dynamism)
  - **Correction:**
    - Eliminate items answered identically by 9/10 subjects (measuring the obvious)
    - Eliminate items not answered by more than one subject (badly formulated item)
  - **Result:** No significant difference between groups!
How is the data collected?

Knowledge of translation questionnaire

- **Problems with the knowledge of translation questionnaire**

  - *Why doesn’t the knowledge of translation questionnaire show any difference between translators and teachers?*

- **Hypothesis:**
  - Foreign language teachers are just as likely to have a dynamic concept of translation because they are always changing from one language to another

- **Test to validate the hypothesis:**
  - Subjects: 10 translation users (maths and physics professors)
  - Result: No differences
How is the data collected?

Knowledge of translation questionnaire

- Where have we gone wrong?
  - Questionnaire based on a value judgement, ‘dynamic is good and static is bad’?

- New hypothesis:
  - ‘Language experts’ are likely to have a ‘coherent’ concept of translation.’
How is the data collected?

Knowledge of translation questionnaire

• The original questionnaire does not distinguish between the three groups of subjects

BUT

Pruning the questionnaire (Scale and item response theories) and only measuring 5 conceptually contradictory pairs of items led to the Coherence coefficient.
## How is the data collected?

### Knowledge of translation questionnaire

<table>
<thead>
<tr>
<th></th>
<th>Dynamic questions</th>
<th>Static questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>It is the client who decides how the translator has to translate a text.</td>
<td>24 When you translate a text, you should not be influenced by the target reader.</td>
</tr>
<tr>
<td>II</td>
<td>A text should be translated in different ways depending on who the target reader is.</td>
<td>4 The aim of every translation is to produce a text as close in form to the original as possible.</td>
</tr>
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<td>III</td>
<td>If you begin to translate a text using certain criteria (e.g. respecting the format of the original text, adapting the text to target reader, etc.) these should be kept to throughout the text.</td>
<td>11 All translated texts should keep the same paragraphs and divisions in the target text as in the original text.</td>
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<td>IV</td>
<td>When translating a specialized text, terminology is not the biggest problem.</td>
<td>5 Most translation problems can be solved with the help of a good dictionary.</td>
</tr>
<tr>
<td>V</td>
<td>If you find a word in a text that you don’t understand, you should try to work out its meaning from the context</td>
<td>16 As soon as you find a word or expression you don’t know the meaning of, you should look it up straightaway in a bilingual dictionary</td>
</tr>
</tbody>
</table>
How is the data collected?

Knowledge of translation questionnaire

• Result
  – The 5 conceptually contradictory pairs of items distinguish between the three groups of subjects

• Advantages
  – Economy of effort (only 10 items)
  – When one item is ‘missing’, its pair is eliminated
How is the data collected?

‘Rich Points’

- **Premise**: Translation is a problem-solving process.
- **Decision**: Focus data collection and analysis on text fragments considered translation problems or “Rich Points”.

**Methodological advantages of ‘Rich Points’**

- data collected on a range of conceptually representative translation problems
- in-depth analysis of the results for the same ‘rich point’ obtained from several indicators.
- the triangulation of data obtained from multiple sources facilitated
- the same data analysis techniques can be used for B-A and A-B translation in all language combinations, thereby eliminating explicit distinction between language pairs
- greater experimental economy guaranteed, and data analysis facilitated.
How is the data collected?

Types of translation problems taken into account when identifying the ‘rich points’ in each text:

- **Linguistic problems**: lexical (non-specialised) and morphosyntactic.

- **Textual problems**: coherence, cohesion, text type and genre, style, intertextuality.

- **Extralinguistic problems**: cultural, encyclopaedic and subject-domain knowledge.

- **Problems of intentionality**: difficulty in understanding the source text (*speech acts, presuppositions, implicatures*).

- **Problems relating to the translation brief and/or the target text reader**: that, from a functionalist point of view, would affect all the ‘rich points’
How is the data represented?

Indicators and indexes

– Examples of indicators:

  • The transversal indicator of acceptability
  
  • Types of actions and sequences of actions
  
  • Index of dynamism and coefficient of coherence
Indicator of acceptability

- Three parameters of acceptability:
  - meaning of the ST
  - function of the TT
  - language use

- Three values of acceptability:
  - Acceptable solution (A)
    - Activates all relevant connotations in the ST
  - Semi-acceptable solution (SA)
    - Activates some of the relevant connotations in the ST and maintains the coherence of the TT
  - Non-acceptable solution (NA)
    - Does not activate any of the relevant connotations in the ST or those that it does activate are not coherent
## Indicator of acceptability

### Resulting permutations and categories

<table>
<thead>
<tr>
<th>Meaning</th>
<th>Function</th>
<th>Language</th>
<th>Category</th>
<th>Numeric value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>1</td>
</tr>
<tr>
<td>A</td>
<td>A</td>
<td>SA</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>SA</td>
<td>A</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>SA</td>
<td>SA</td>
<td>SA</td>
<td></td>
</tr>
<tr>
<td>AN</td>
<td>A</td>
<td>A</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>AN</td>
<td>SA</td>
<td>NA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AN</td>
<td>NA</td>
<td>A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AN</td>
<td>NA</td>
<td>SA</td>
<td>SA</td>
<td>0.5</td>
</tr>
<tr>
<td>SA</td>
<td>SA</td>
<td>A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SA</td>
<td>SA</td>
<td>SA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SA</td>
<td>A</td>
<td>SA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
How is the data represented?

Types and sequences of actions

• Exploratory test: Catalogue of actions (PACTE 2002)

  – Directly observed activities:
    • first-time reading of the source text
    • re-reading of the source text
    • revising the target text; underlining
    • making notes
    • comparing source text and target text
    • consultation of printed materials

  – Activities observed using PROXY:
    • immediate solution to a translation problem
    • non-immediate solution to a translation problem (after a pause, consultation, etc.)
    • pause
    • no solution to a translation problem (postponed solution)
    • solution of a postponed solution
    • temporary solution
    • final solution of a temporary solution
    • on-line consultation
    • use of new technologies (Internet, text processing)
    • corrections (lexical items, grammar, cohesion, coherence, etc.)
How is the data represented?

Types and sequences of actions

• Pilot test: Actions (PACTE 2005a, 2005b)

  – **P**: pause (+ 5 seconds)
  – **PS**: provisional solution
  – **DS**: definitive solution
  – **CON**: consultation (classified as simple or complex)
How is the data represented?

Types and sequences of actions

- **Pilot test: Sequences of actions** (PACTE 2005a, 2005b)

1. **Internal support.** No external support is used. The Definitive Solution (SD) is reached by using internal support alone.

2. **Internal support predominant, with recourse to external support (ISD).** Complex documentation searches are made, but these do not lead to a definitive solution. The Definitive Solution is the result of internal support.

3. **Balanced interaction between internal and external support (IS-ES).** Both internal and external support is used and the Definitive Solution is the result of interaction between both.

4. **External support predominant, combined with internal support (ESD).** Complex consultations are the basis for a Definitive Solution which is the result of external support.

5. **Simple External Support (ES).** Bilingual dictionaries are consulted and the solution provided is accepted. The Definitive Solution is the result of external support alone.
How is the data represented?

Types and sequences of actions

- **Experiment: Actions** (PACTE 2009)
  - **PS**: Provisional solution
  - **DS**: Definitive solution
  - **CON**: Consultation
  - **CON BL** (Bilingual Dictionaries): less cognitive implication
    - **CONBL-C**
    - **CONBL-NC**
  - **CON AL** (All Others): greater cognitive implication
  - **CON-0**: No consultation
Types and sequences of actions

- **Experiment: sequences of actions** (PACTE 2009)

1. **Internal Support (Simple Internal Support).** The Definitive Solution is based on Internal Support only: CON-0.

2. **Predominantly Internal Support.** The Definitive Solution is based essentially on Internal Support: any combination of consultations that does not contain CONBL-C.

3. **Predominantly External Support.** The Definitive Solution is based essentially on External Support: any combination of consultations that contains CONBL-C.

4. **External Support (Simple External Support).** The Definitive Solution is based exclusively on CONBL proposals that are accepted by the subject: only consultations CONBL-C.
How is the data represented?

Experiment: sequences of actions
How is the data represented?

• **Dynamic index:**
  - Static: linguistic and literal concepts
  - Dynamic: textual, communicative and functional concepts

• **Coherence coefficient:**
  - This indicator measures the subject’s degree of coherence

• **The dynamic index and the coherence coefficient are used in two variables:**
  - Translation knowledge
  - Translation project
How is the data analysed?

Models of Analysis

– Example:
  • Knowledge of translation
How is the data analysed?

Knowledge of translation

Translation Knowledge Questionnaire Model of Analysis

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>35 professional translators</td>
<td>24 foreign language teachers (EOI)</td>
<td>10 users of translations (Science professors)</td>
</tr>
</tbody>
</table>
How is the data analysed?

Knowledge of translation

• **The translation knowledge questionnaire** permits answers of the type:
  – I strongly disagree; I disagree; I agree; I strongly agree.

• To analyze the results of the experiment a fifth category was added, ‘missing’, and the numerical values of the answers were reclassified:
  – Missing = 0; I strongly disagree = 1; I disagree = 2; I agree = 3; I strongly agree = 4

• **The dynamic index** is calculated by using 5 ‘pairs’ of questions that reflect the static/dynamic contrast. If one of the items is ‘missing’, the other half of the pair is discarded.
## Knowledge of translation

<table>
<thead>
<tr>
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<th>Dynamic questions</th>
<th>Static questions</th>
</tr>
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<tbody>
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<td><strong>3</strong> It is the client who decides how the translator has to translate a text.</td>
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<td>V</td>
<td><strong>27</strong> If you find a word in a text that you don’t understand, you should try to work out its meaning from the context</td>
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</tr>
</tbody>
</table>
### DYNAMIC INDEX

<table>
<thead>
<tr>
<th>Categories of dynamism</th>
<th>Values of scales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reclassified answers</td>
<td>Categories of dynamism/pair/subject:</td>
</tr>
<tr>
<td>Dynamic; Static questions</td>
<td>-1; -0.5; 0; 0.5; 1 points of dynamism</td>
</tr>
</tbody>
</table>

| 4; 4                         | 0 points of dynamism                                  |
| 4; 3                         |                                                       |
| 3; 4                         |                                                       |
| 3; 3                         |                                                       |
| 2; 2                         |                                                       |
| 2; 1                         |                                                       |
| 1; 2                         |                                                       |
| 1; 1                         |                                                       |
| 4; 2                         | 0.5 points of dynamism                                |
| 3; 2                         |                                                       |
| 4; 1                         | 1 points of dynamism                                  |
| 3; 1                         |                                                       |
| 2; 4                         | -0.5 points of dynamism                              |
| 2; 3                         |                                                       |
| 1; 4                         | -1 points of dynamism                                 |
| 1; 3                         |                                                       |
Evidence
The second “pair” of items (related to translation methods)
Dynamic item: “A text should be translated in different ways depending on who the target reader is.” I strongly disagree, I disagree, I agree, I strongly agree.
How is the data analysed?

Knowledge of translation

Evidence

The second “pair” of items (related to translation methods)
Static item: “The aim of every translation is to produce a text as close in form to the original as possible”. I strongly disagree, I disagree, I agree, I strongly agree.
Dynamic index: descriptive statistics

Shows differences between the three groups of subjects

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Median</th>
<th>Max.</th>
<th>Min.</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Translators</td>
<td>0.273</td>
<td>0.200</td>
<td>0.900</td>
<td>-0.200</td>
<td>0.204</td>
</tr>
<tr>
<td>Teachers</td>
<td>0.088</td>
<td>0.150</td>
<td>0.625</td>
<td>-0.400</td>
<td>0.261</td>
</tr>
<tr>
<td>Users</td>
<td>-0.200</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
How is the data analysed?

Knowledge of translation

Dynamic index: contrastive statistics

<table>
<thead>
<tr>
<th>Dynamic Index per subject</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U-test</td>
<td>259.500</td>
</tr>
<tr>
<td>Wilcoxon W</td>
<td>559.500</td>
</tr>
<tr>
<td>Z-test</td>
<td>-2.511</td>
</tr>
</tbody>
</table>

Significance: .012

CONCLUSION
The dynamic index of the translators is significantly higher than that of the teachers (at the significance level 5%).
## How is the data analysed?

### Knowledge of translation

**Coherence coefficient**

<table>
<thead>
<tr>
<th>Reclassified replies: Dynamic - Static questions</th>
<th>Categories of concept of translation /pair/subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 – 4</td>
<td>Dynamic – Static (D – S)</td>
</tr>
<tr>
<td>4 – 3</td>
<td></td>
</tr>
<tr>
<td>3 – 4</td>
<td></td>
</tr>
<tr>
<td>3 – 3</td>
<td></td>
</tr>
<tr>
<td>2 – 2</td>
<td></td>
</tr>
<tr>
<td>2 – 1</td>
<td></td>
</tr>
<tr>
<td>1 – 2</td>
<td></td>
</tr>
<tr>
<td>1 – 1</td>
<td></td>
</tr>
<tr>
<td>4 – 2</td>
<td>Dynamic (D)</td>
</tr>
<tr>
<td>3 – 2</td>
<td></td>
</tr>
<tr>
<td>4 – 1</td>
<td></td>
</tr>
<tr>
<td>3 – 1</td>
<td></td>
</tr>
<tr>
<td>2 – 4</td>
<td>Static (S)</td>
</tr>
<tr>
<td>2 – 3</td>
<td></td>
</tr>
<tr>
<td>1 – 4</td>
<td></td>
</tr>
<tr>
<td>1 – 3</td>
<td></td>
</tr>
</tbody>
</table>
How is the data analysed?
Knowledge of translation

Categories of coherence

• Sum the categories D and S of the concept of translation /pair/subject. Calculate the coherence coefficient from the difference between the majority and minority concept (We are not interested in whether it’s dynamic or static, only if it’s coherent) following the formula:

\[
D < S \rightarrow \sum S - \sum D
\]

i.e.: \(\text{sumaS-sumaD}\)

\[
S < D \rightarrow \sum D - \sum S
\]

• the coherence coefficient is defined with 3 categories:

  SUMA 0 – 1: 0 points; no coherence
  SUMA 2 – 3: ½ point; average coherence
  SUMA 4 – 5: 1 point; maximum coherence
Confirms new hypothesis:
There is no significant difference in coherence between the groups of translators and teachers, but the users are different.

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>Degrees of freedom</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson C-square</td>
<td>3.028</td>
<td>2</td>
<td>.220</td>
</tr>
<tr>
<td>Likelihood</td>
<td>4.459</td>
<td>2</td>
<td>.108</td>
</tr>
<tr>
<td>Number of valid cases</td>
<td>59</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Methodological commentary

• The instrument and the methodology (indicators) were validated within the experiment, therefore:
  – Experimental economy
  – Results less likely to be distorted

• The dynamic index and the coherence coefficient are not only useful to measure Knowledge of Translation, but also the Translation Project
How is the data analysed?

• Crossing data:
  • Contrasting translators and teachers
  • Contrasting direct and inverse translation
  • Integrating acceptability indicator
  • Contrasting different variables
  • Contrasting global translation projects with ‘rich points’
  • Contrasting the ‘best’ and the ‘worst’ subjects
V. DESIGNING THE PACTE ACQUISITION OF TRANSLATION COMPETENCE EXPERIMENT
THE ACT EXPERIMENT

- What type of study?
- Who is observed?
- What is observed?
- How is the data collected?
- How is the data represented?
- How is the data analysed?
• A longitudinal study with repeated measurements?
  – Repeated measurements taken from one sample of students over 5 years
    • Technical problems
      – 5 years needed to collect the data
      – Parallel instruments needed for each measurement (texts, questionnaires, etc.)

• A simulacrum of a longitudinal study.
  – ‘Repeated’ measurements from samples of students taken from each promotion
    • Advantages
      – Data collected in one year
      – Validated instruments available from the TC experiment
    • Technical problem
      – Assure comparability of promotions
Type of study

Fourth year students (end academic year = "5th year students")

Fourth year students (start academic year)

Third year students

Second year students

Novices

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test 1 (Sept.)

pedagogical intervention

test 2 (Sept.)

pedagogical intervention

test 3 (Sept.)

pedagogical intervention

test 4 (Sept.)

pedagogical intervention

test 5 (June)

Professional translators

ATC
• To prepare the ACT experiment and validate the new instruments:
  – Exploratory test (15 students)
  – Pilot test (15 students)
Who is observed?

- **Experimental universe**
  - 150 students from different years of the FTI/UAB undergraduate degree in translation and interpreting
  - 6 Language combinations (= TC experiment)

- **How is the sample selected?**
  - Initial questionnaire to act as filter
    - (e.g. to have passed all the subjects in the previous year, to be a Spanish or Catalan NS, not to have transferred from another degree programme)
  - Students that have passed the filter
  - Random selection of 5 from each year

- **Control group**
  - The 35 professional translators from the TC experiment
What is observed?

• Independent variables
  – Experience in translation (six categories):
    • Novices
    • Second year students
    • Third year students
    • Fourth year students
    • Recent graduates
    • Professional translators
  – Types of pedagogical intervention:
What is observed?

- Dependent variables = TC experiment
  - Knowledge of translation
  - Efficacy of the process
  - Decision-making
  - Translation project
  - Problem-solving
  - Use of instrumental resources
How is the data collected?

• Instruments validated in the TC experiment
  • Observation instruments:
    – Software: Proxy and Camtasia
  • Questionnaires:
    – Translation problems questionnaires (BA and AB)
    – Knowledge of translation questionnaire
  • Texts:
    – ‘Rich points’
    – Criteria for acceptability, semi acceptability and unacceptability of solutions

• New instruments for the ATC experiment
  • Questionnaires:
    – Initial questionnaire
    – Standardised retrospective interview
  • Corpus software:
    – WordSmith Tools
How is the data represented?

• Indicators validated in the TC experiment
  • The transversal indicator of acceptability
  • Types of actions
  • Sequences of actions
  • Index of dynamism
  • Coefficient of coherence, etc.

• New indicators for the ATC experiment
  • Indicators based on corpus methodology to compare
    – ST and TT
    – TT from different language combinations
    – TT from students at different levels
    – TT by students and professional translators
How is the data analysed?

• Models of analysis validated in the TC experiment:
  • Efficacy of the process: total time taken and acceptability (division of the sample)
  • Knowledge of translation
  • Translation project, etc.

• New models of analysis for the ATC experiment:
  • Corpus methodology models of analysis
Áreas de la Ciencia (Aristóteles)

Sócrates

Platón

Traductología

Gramática

Retórica

Dialéctica

Música

Astronomía

Geometría

Aritmética