Results of PACTE Group's Experimental Research

on Translation Competence Acquisition

The Acquisition of the Instrumental Subcompetence

and the Acceptability of Translations

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I. INTRODUCTION

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OVERALL OBJECTIVE
Acquisition of Translation Competence

PHASES
1st Translation Competence (TC) (2000-2010)
2nd Acquisition of Translation Competence (ATC) (2011-)

RESEARCH
Empirical-experimental
Process and product

6 LANGUAGE COMBINATIONS

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TESTS

Exploratory studies on TC (June 2000-January 2001)

Pilot test on TC (February-April 2004)

Experiment on TC (October 2005-March 2006)

(professional translators, foreign-language teachers)

Pilot test on ATC (June 2011)
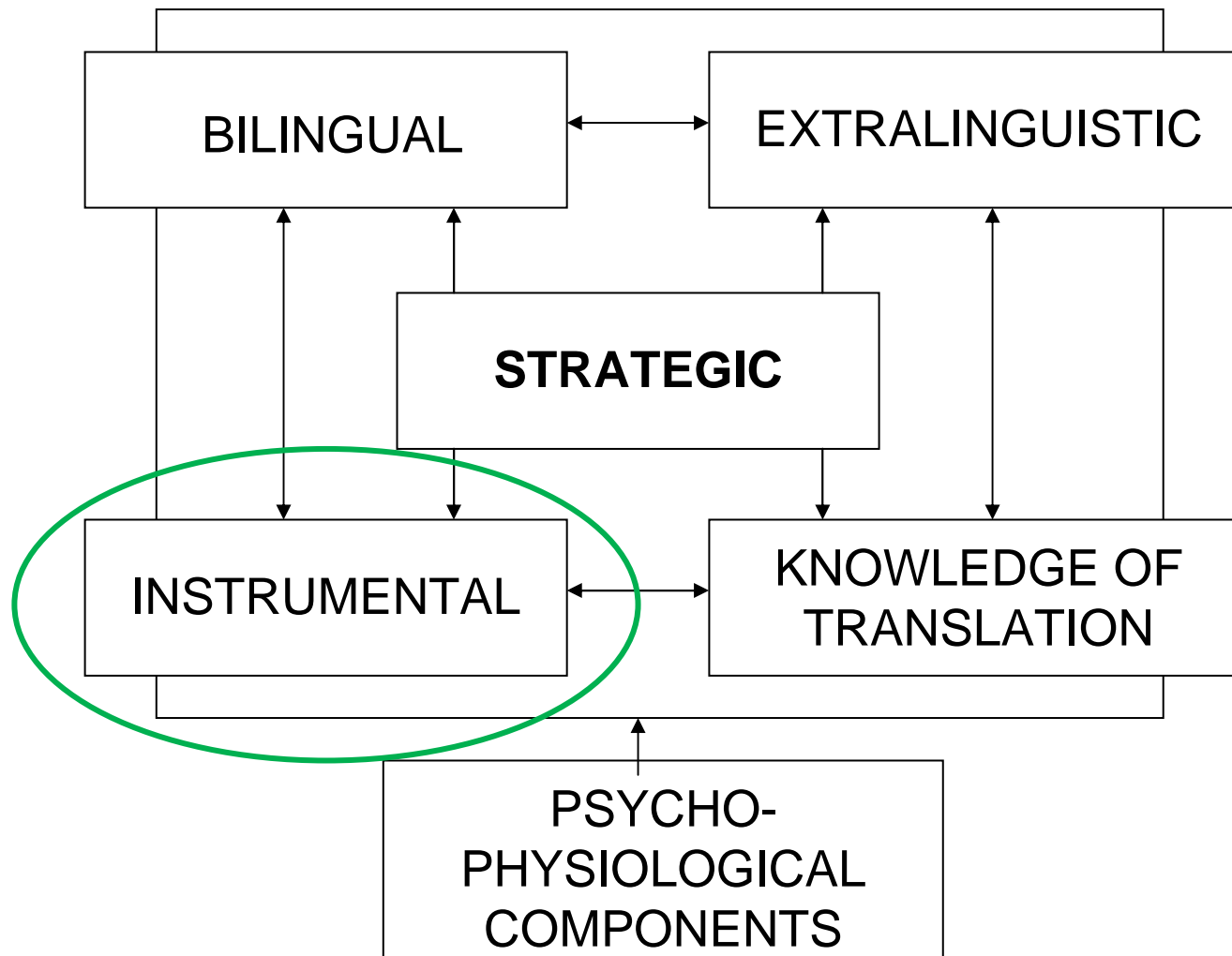
Experiment on ATC (November 2011)

(translation trainees)

CURRENT PHASE

Analysis of data from experiment on ATC

TRANSLATION COMPETENCE

The underlying system of knowledge required to translate

- ✓ Expert knowledge
- ✓ Predominantly procedural
- ✓ Comprising different inter-related sub-competences
- ✓ Important strategic component

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II. ACQUISITION OF TRANSLATION COMPETENCE: THEORETICAL MODEL AND RESEARCH DESIGN

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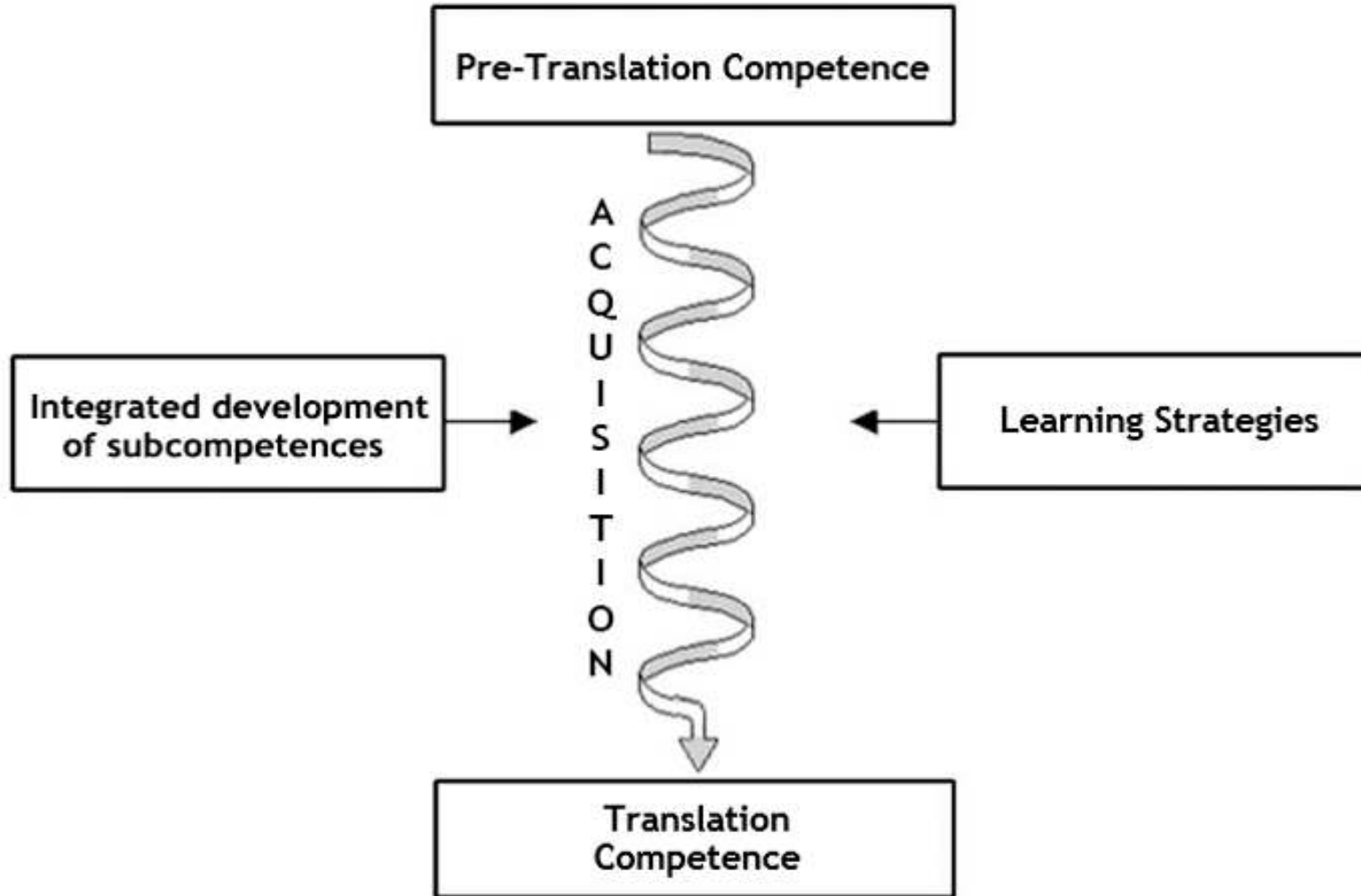
General hypothesis:

Translation competence is acquired as a result of a process of development and restructuring of different sub-competences.

Operational hypotheses:

1. Translation competence comprises several inter-related sub-competences.

2. The development of the strategic**, instrumental**, and knowledge of translation sub-competences is of particular importance.

3. Not all sub-competences develop in parallel, i.e. at the same time and at the same rate.

4. Learning strategies must also be acquired.

5. The acquisition of translation competence is dependent upon **directionality (direct/inverse translation)**, language pairs in use, the field of specialized translation (legal, literary translation, etc.) and the learning environment.

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INDEPENDENT VARIABLE

■ Degree of experience in translation:

- First-year students
- Second-year students
- Third-year students
- Fourth-year students
- Recent graduates

- Professional translators

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DEPENDENT VARIABLES = (as in the TC experiment)

- ■ Knowledge of Translation

- ■ Translation Project

- ■ Identification and Solution of Translation Problems

- ■ Decision-making

- ■ Efficacy of the Process

- ■ **Use of Instrumental Resources**

20 indicators

- ■ **Acceptability as a transversal indicator**

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Measurements from cohorts of first-year, second-year, third-year and fourth-year students

- Advantages

    - Data collected in one year

    - Validated instruments available from the TC experiment

EXPERIMENTAL UNIVERSE

- Students from different years in the FTI/UAB Degree in Translation and Interpreting

- 6 language combinations (as in the TC experiment)

SELECTION PROCESS

- Pre-selection questionnaire

- 5 cohorts of approx. 30 subjects each

 (fourth-year students and recent graduates took the older, unadapted Translation and Interpreting degree course).

SAMPLE

- 130 subjects

CONTROL GROUP

- 35 translators from the TC experiment

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Instruments validated in the TC experiment:

- **Observation: on-screen real-time recordings**
    Camtasia
- Questionnaires:
    Knowledge of Translation Questionnaire
    Translation Problems Questionnaire (revised)
- **Texts:**
    Rich Points
    Criteria for acceptability
- Corpus of electronic texts
    WordSmith Tools

EXPERIMENTAL TASKS

- **Direct translation** (PC with Internet connexion without CAT tools)

- Completion of a questionnaire on the translation problems encountered

- **Inverse translation** (PC with Internet connexion without CAT tools)

- Completion of a questionnaire on the translation problems encountered

- Completion of the Translation Knowledge Questionnaire

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III. USE OF INSTRUMENTAL RESOURCES

⟷ Related to the Instrumental subcompetence

(PACTE 2009)

Documentation strategies used when consulting resources in electronic format (websites, dictionaries and encyclopaedias in CD-ROM, etc.)

❑ Instruments:

  ✓ Translations

    ✓ 5 Rich Points in the direct translation (L2-L1)

    ✓ 5 Rich Points in the inverse translation (L1-L2)

  ✓ Translation process recordings (*Camtasia*, .avi files)

❑ Data analysis:

  ✓ Viewing of the .avi files

  ✓ Completion of a database

  ✓ Quantitative analysis

❑ Indicators, measured in the Rich Points:

TRANSLATION PROCESS

✓ Number of resources

✓ Time taken on searches

✓ Time taken on searches at each stage

✓ Number of searches

✓ Variety of searches

    ✓ Step one: types of searches

    ✓ Step two: combinations of types of searches

TRANSLATION PRODUCT

✓ Acceptability of translations

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Direct translation

1. Title (metaphor). Problem: intentionality, textual

2. Technical term. Problem: linguistic related to reformulation, extralinguistic

3. Reference chain. Problem: textual

4. Element with explication. Problem: textual, intentionality

5. Especially rich point (comprehension, reformulation). Problem: intentionality, linguistic related to reformulation
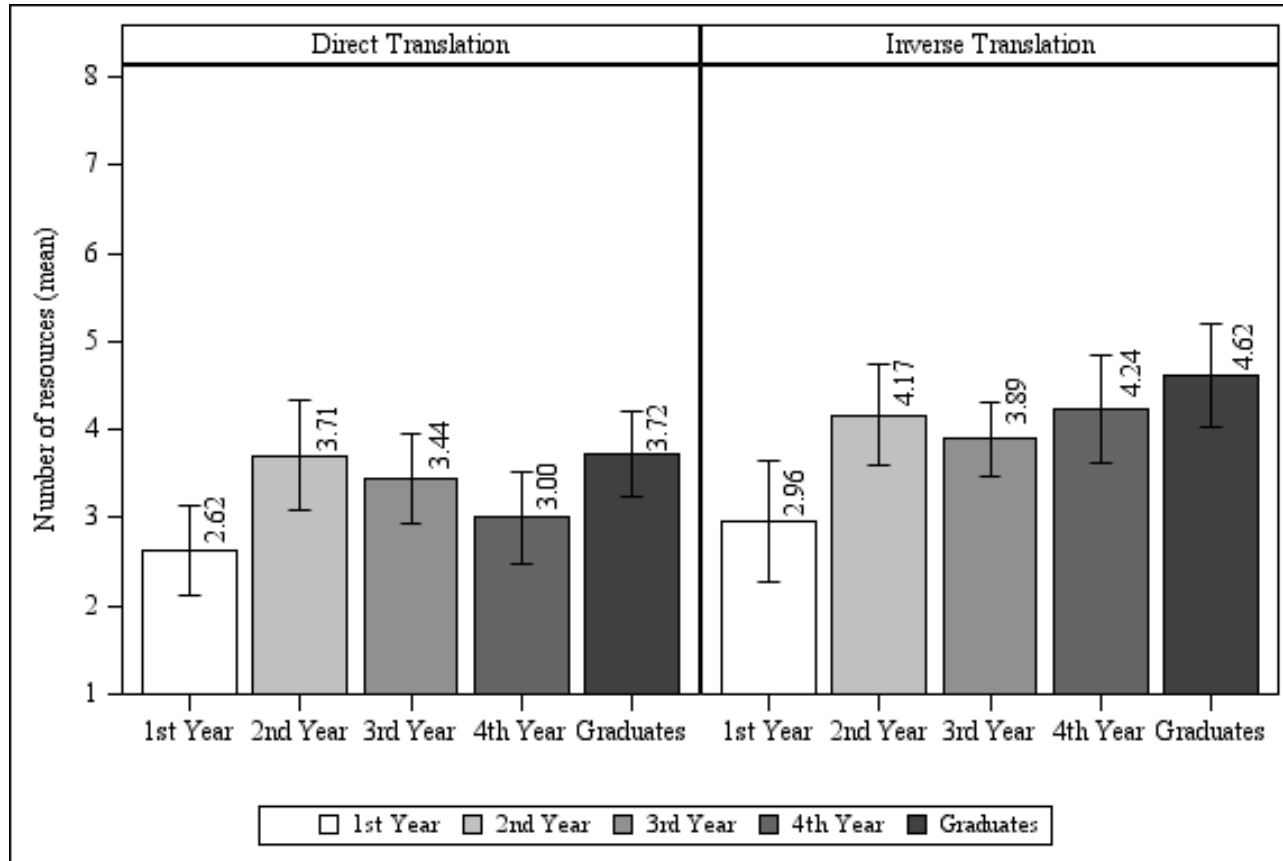
Inverse translation

1. *Indiano… fortuna del americano*. Problem: extralinguistic, textual

2. *Gobierno alfonsino*. Problem: extralinguistic

3. *Desenfreno y dilapidación*. Problem: linguistic related to reformulation

4. *La geografía comarcal*... Problem: intentionality

5. *común… trona*. Problem: extralinguistic, textual, intentionality

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IV. RESULTS

Indicators of the use of instrumental resources

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□ Eight types of resources consulted (on-line or CD-Rom format):
- ✓ Search engines
- ✓ Bilingual dictionaries
- ✓ Monolingual dictionaries
- ✓ Dictionaries of synonyms
- ✓ Encyclopedias
- ✓ On-line databases
- ✓ On-line corpora or corpora in CD-Rom format
- ✓ Specialised or field-specific portals

# NUMBER OF RESOURCES RESULTS

TC experiment
Professional translators (n=35): direct translation 7.77; inverse translation 10.91.
Expert translators (n=9): direct translation 11.67.

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✓ In both direct and inverse translation, there is a leap between first and second year

➢ Students start practicing translation

In inverse translation, leap between 3rd and 4th year

➢ Specific courses on inverse translation.

✓ In direct translation, variety of resources decreases from 3rd to 4th year

➢ Internal support (the students' linguistic and extralinguistic knowledge, the knowledge of translation and cognitive strategies) increases to solve translation problems

This does not happen in inverse translation

➢ Internal support by itself is not strong enough to solve translation problems.

✓ A wider variety of resources is used in inverse translation than in direct translation.

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P CTE

❑ Measured by adding together the average length of time spent on each search to find solutions to the Rich Points in direct and inverse translation.
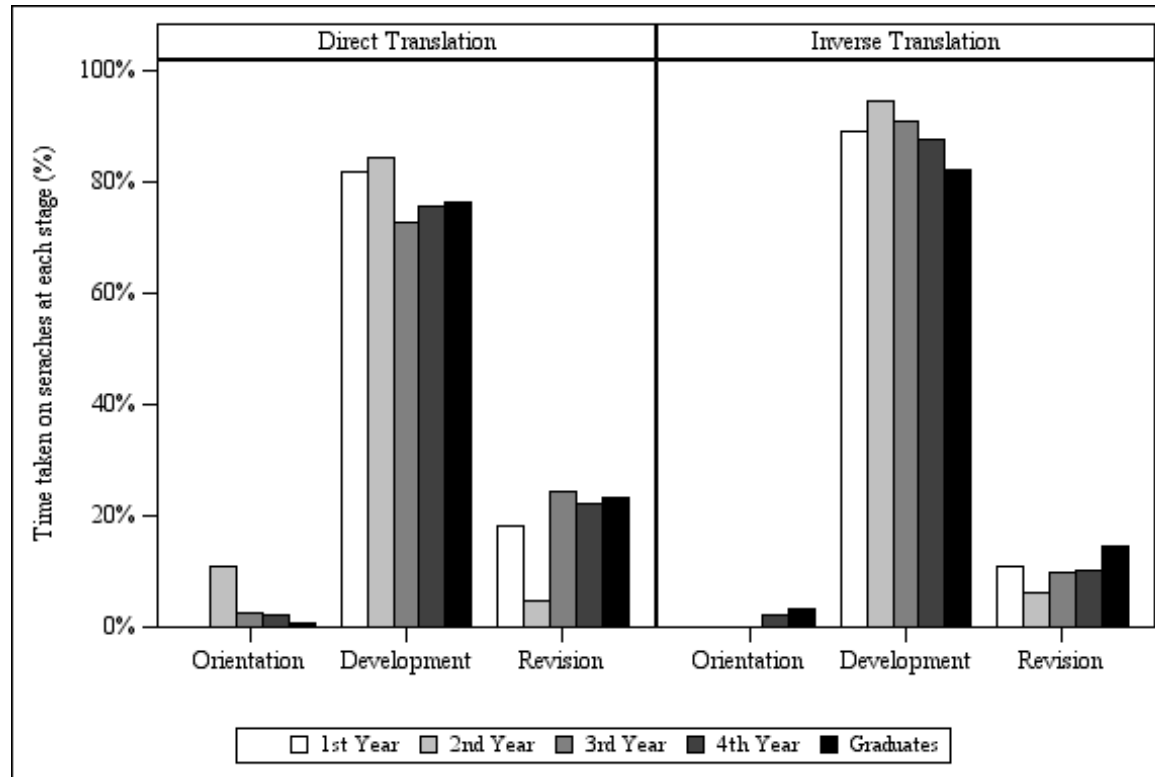
TIME TAKEN ON SEARCHES
RESULTS
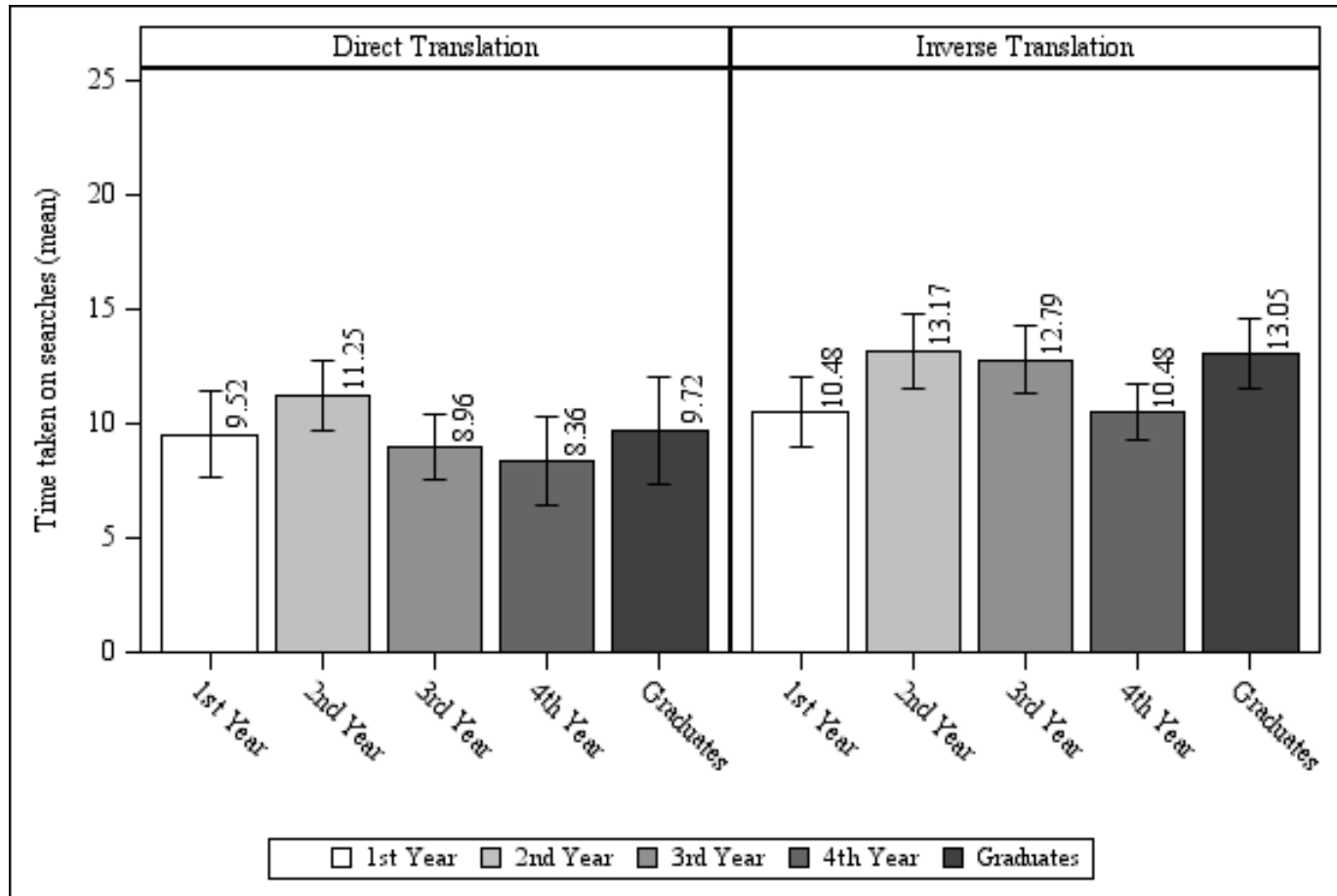
TC experiment
Professional translators: direct translation 8.06; inverse translation 9.72.
Expert translators: direct translation 9.44.

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✓ In both direct and inverse translation, there is a leap between first and second-year students

  ➢ Contact with translation practice

✓ In both direct and inverse translation, there is a decreasing tendency from second to fourth-year students

  ➢ Efficacy of searches increases and internal support is used to solve translation problems

✓ Generally, the time spent on searches is higher in inverse translation

  ➢ External support is more frequent in inverse translation than in direct translation

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❑ This indicator provides information on the time subjects spent on searches at each stage (orientation, development, revision) of the translation process.

❑ Data was obtained by recording the length of time taken for each search and the stage at which it took place.

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TC experiment

Professional translators:

direct translation – orientation 16%, development 48%, revision 36%;

inverse translation - orientation 6%, development 77%, revision 17%.

Expert translators:

direct translation – orientation 26%, development 46%, revision 28%.

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✓ Most of the searches are performed during the development phase, especially in inverse translation.

✓ Searches during the revision phase are more frequent in direct translation than in inverse translation

➢ Students do not find them as useful as in direct translation (they cannot monitor their L2 as good as their L1, so revision searches are limited)

✓ First-year students perform no searches during orientation phase in direct and inverse translation

✓ Although second-year students perform searches during the orientation phase in direct translation, they spend very little time performing searches during the revision phase both in direct and inverse translation

➢ They spend their time performing their searches mainly during the development phase to find solutions.

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❑ The number of searches carried out by subjects to find solutions to the total of ten rich points, five in direct and five in inverse translation.

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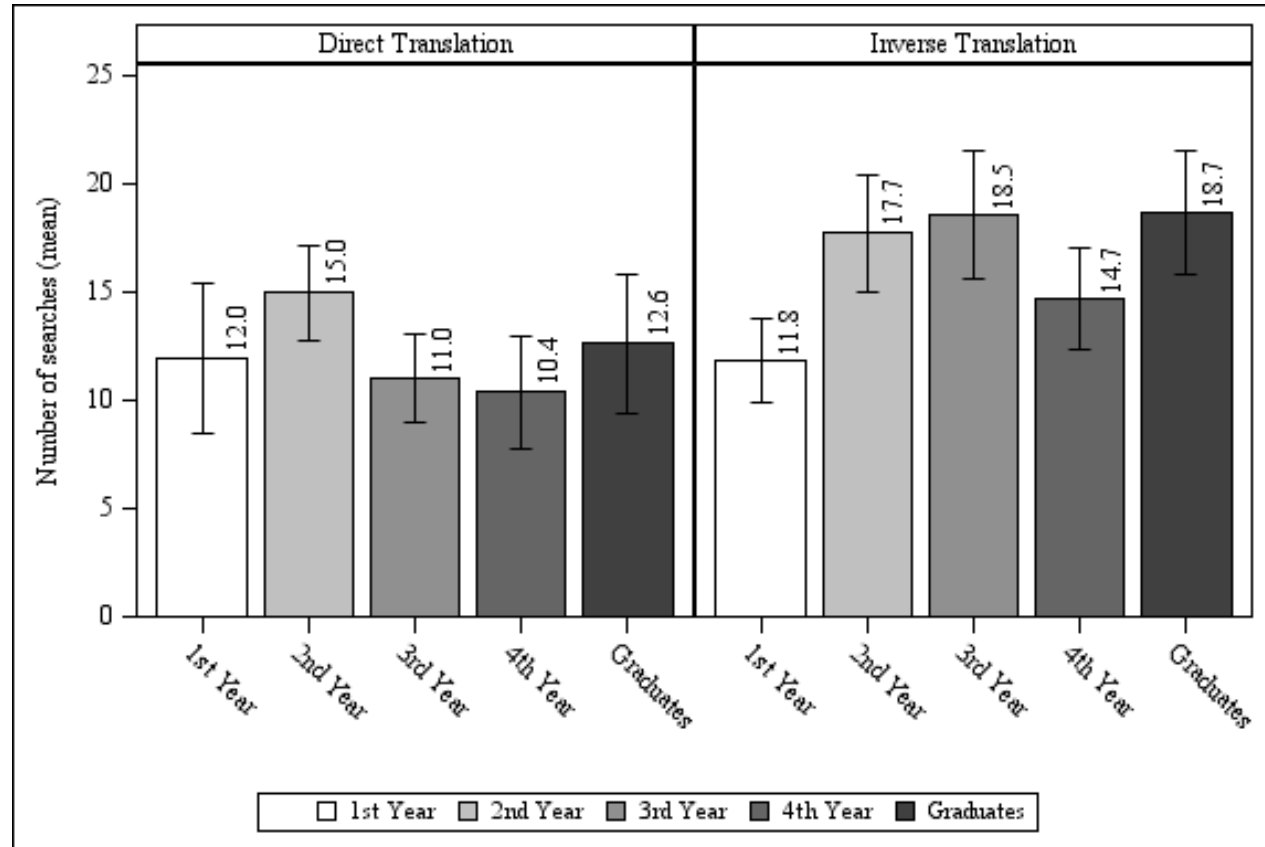
TC experiment

Professional translators: direct translation 20.5; inverse translation 28.8.
Expert translators: direct translation 30.22.

✓ In both direct and inverse translation, there is a leap between first and second-year students

➢ The contact with practice

✓ In direct translation, there is a decreasing tendency in the number of searches

➢ Internal support is used more frequently

 However, in inverse translation there is an increasing tendency

➢ External support is more frequent

✓ Generally speaking, more searches are performed in inverse translation than in direct translation

➢ Students cannot rely on their internal support only to solve translation problems

VARIETY OF SEARCHES (step one) MEASUREMENT

❑ Step one: 13 types of searches (26 data per subject):
- ✓ Searches using keywords
- ✓ Exact searches (inverted commas)
- ✓ Searches for equivalents
- ✓ Searches for definitions
- ✓ Searches for synonyms
- ✓ Searches in encyclopaedias for clarification
- ✓ Searches in context
- ✓ Searches in websites
- ✓ Cache searches
- ✓ Searches using preferred region
- ✓ Searches using preferred language
- ✓ Searches using preferred date
- ✓ Searches followed by correction ("Search instead for...")

VARIETY OF SEARCHES (step one) RESULTS

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❑ Direct translation (total: 2034 searches):
- ✓ 898 searches for equivalents
- ✓ 256 searches for definitions
- ✓ 133 searches using keywords
- ✓ 62 searches in context …

❑ Inverse translation (total 1425 searches):
- ✓ 1174 searches for equivalents
- ✓ 489 searches for definitions
- ✓ 230 searches using keywords
- ✓ 55 exact searches…

❑ The total number of all searches in inverse translation (2034 cases) is much higher than in direct translation (1425)

❑ Lack of two types of searches:
  ✓ cache searches
  ✓ searches using preferred date

VARIETY OF SEARCHES (step one)
RESULTS

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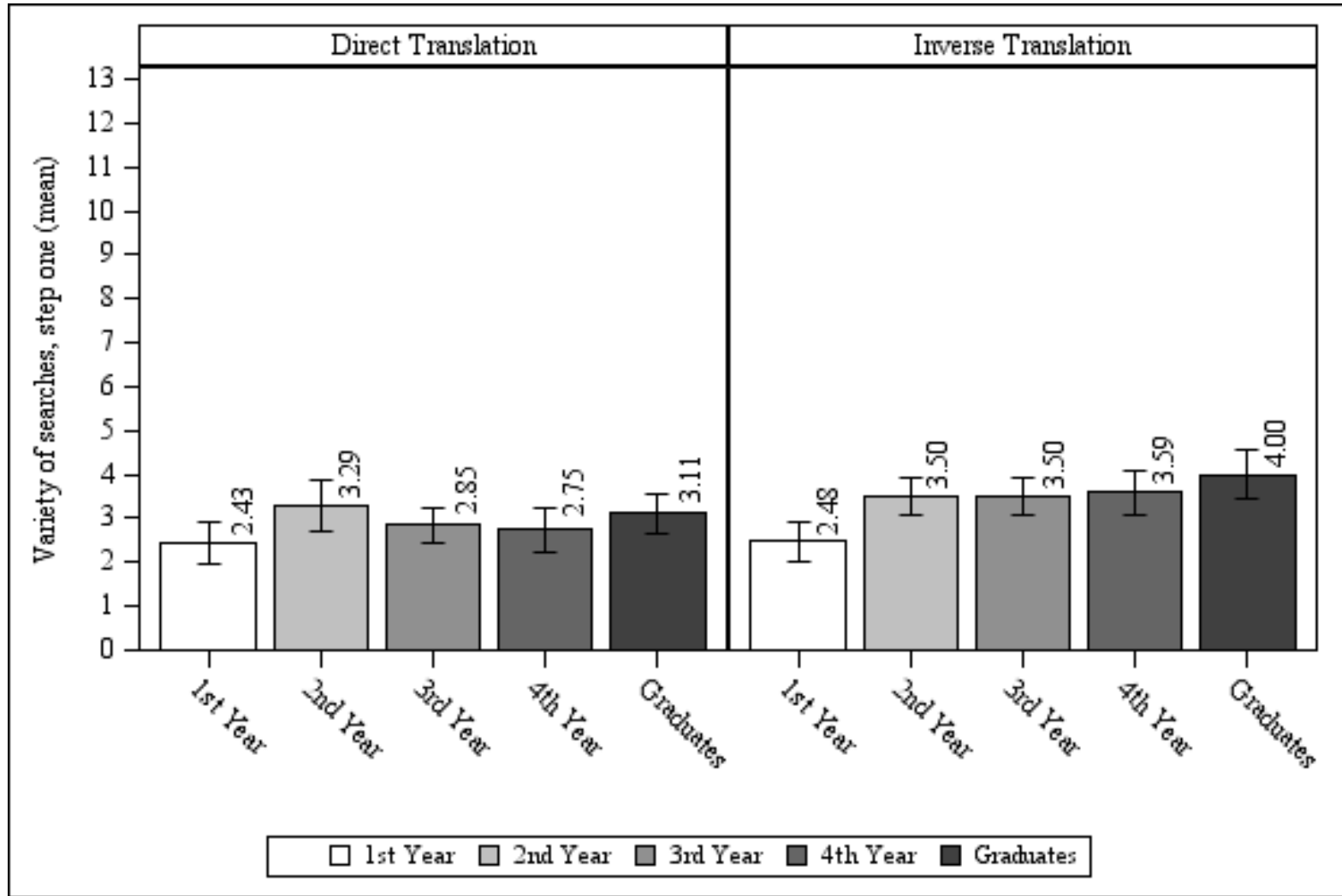
✓ There is a leap between first and second-year students in both direct and inverse translation

➤ The contact with translation practice

✓ In direct translation, there is a slightly decreasing tendency in the variety of searches from 3rd to 4th

➤ The increase of internal support

✓ Generally speaking, a slightly wider variety of searches is used in inverse translation than in direct translation

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❑ Step two: 5 types of combinations of searches:

✓ **None**: no search of any kind was performed

✓ **Simple**: only one type of search was performed

✓ **Double**: a combination of two types of search was performed

✓ **Combined**: a combination of three, four or five types of search was performed

✓ **Multiple**: a combination of more than five types of search was performed

# VARIETY OF SEARCHES (step two) RESULTS
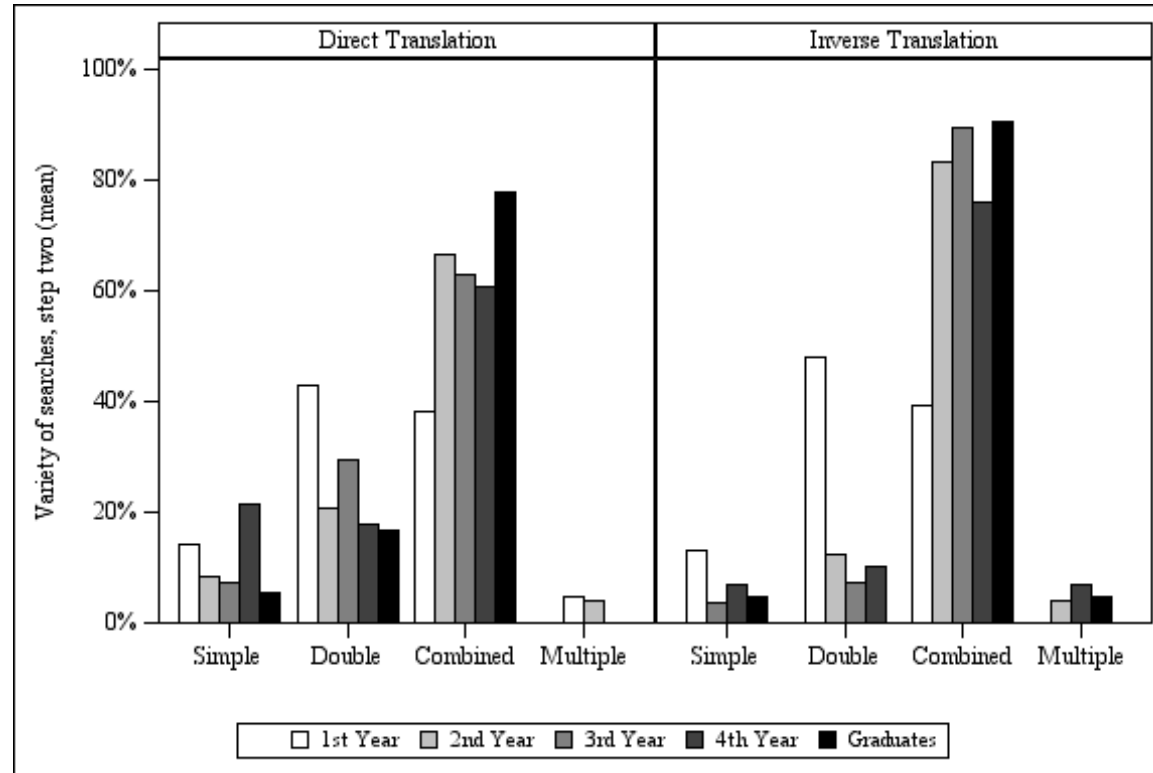

TC experiment

Professional translators:

direct translation - none 8.6%, simple 5.7%, **double 34.3%; combined 40.0%**, multiple 1.4%; inverse translation - none 8.6%, simple 8.6%, **double 28.5%; comined 40.0%;** multiple 14.3%.

Expert translators: direct translation – none 0%, simple 0%, **double 33.3%,** combined 22.2%, **multiple 44.5%.**

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✓ Generally, in both direct and inverse translation, first-year students tend to combine fewer searches than students in other years.

✓ In direct translation, there is a decreasing tendency in all types of combinations

   ➢ The use of internal support

✓ In direct and inverse translation, the most frequently used type is combined use. However, in direct translation, simple use and double use are also frequent.

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V. CONCLUSIONS

Indicators of the use of instrumental resources
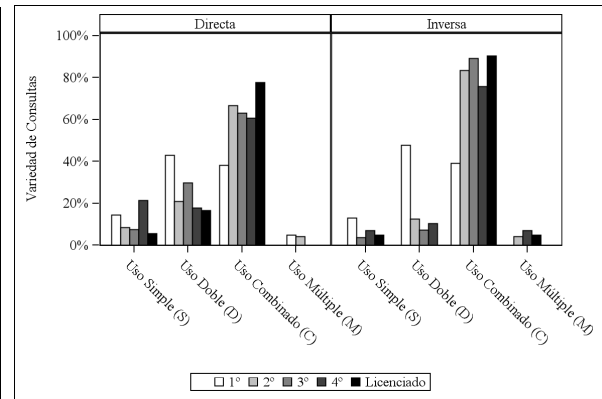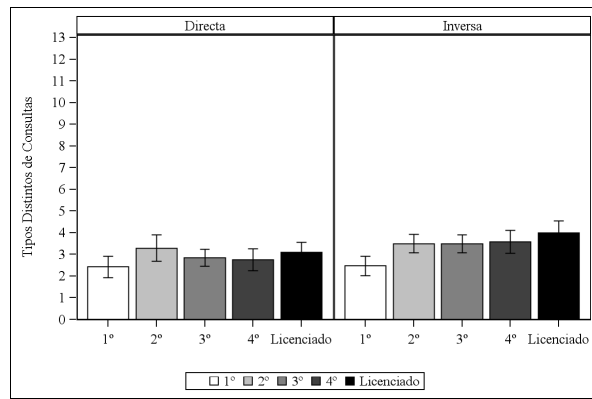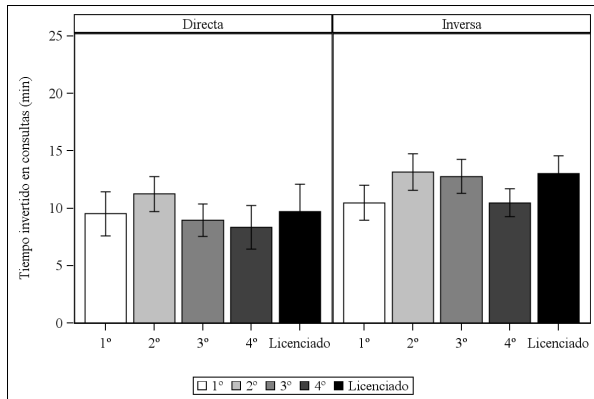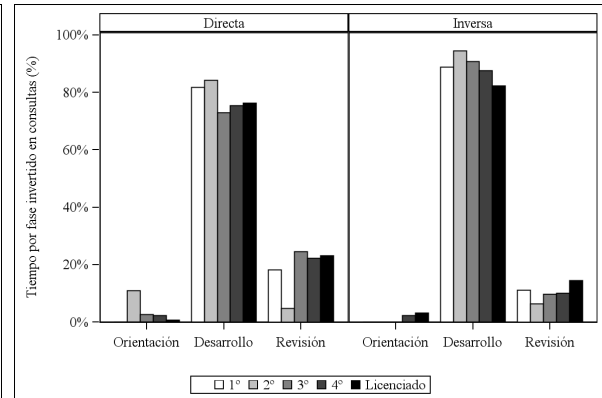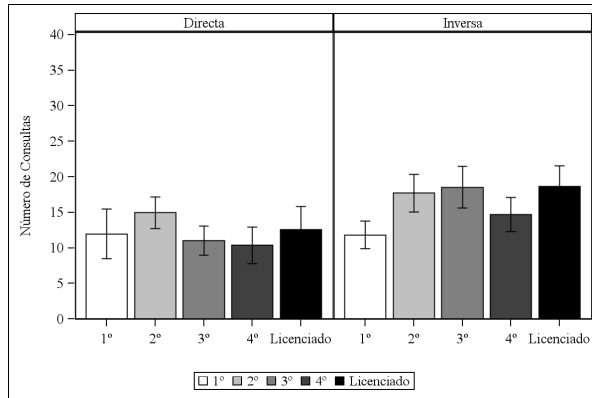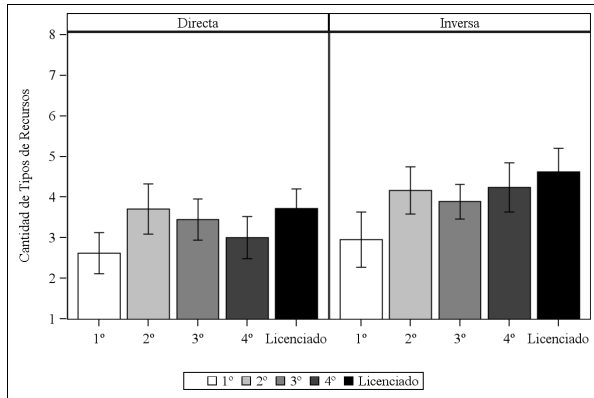
- Number of resources (only in inverse translation):
  - first and second-year students
  - first and fourth-year students
  - first and recent graduates.

- Time taken on searches (only in inverse translation):
  - first and second-year students
  - second and fourth-year students (decrease)
  - fourth-year students and recent graduates.

- Number of searches (only in inverse translation):
  - first and second-year students
  - first and third-year students
  - first-year students and recent graduates

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VI. RESULTS

Indicator of translation quality (Acceptability)

and its relation with the indicators of the use of instrumental resources

MEASUREMENT – Categories
ACCEPTABILITY

Meaning	Function	Language	Category	Numeric value
A	A	A		
A	A	SA		
A	SA	A	**A**	**1**
A	SA	SA		
SA	A	A		
--				
A	A	NA		
A	SA	NA		
A	NA	A		
A	NA	SA	**SA**	**0.5**
SA	SA	A		
SA	SA	SA		
SA	A	SA		
--				
A	NA	NA		
SA	SA	NA	**NA**	**0**
…				

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Direct translation	Mean
1st	0.45
2nd	**0.59**
3rd	0.63
4th	0.65
Graduates	0.70
Translators	0.73
Experts	0.96

Acceptability begins to increase gradually from the 2nd year onwards until training is complete.
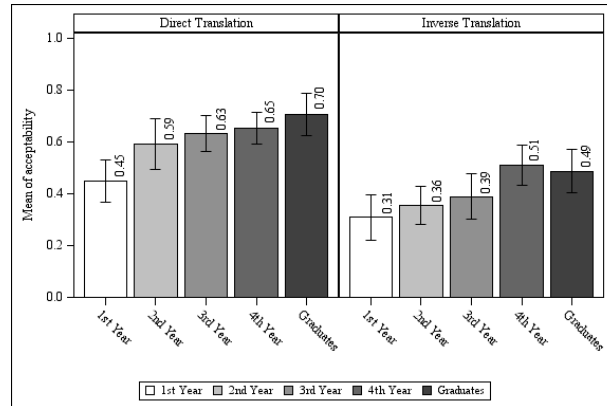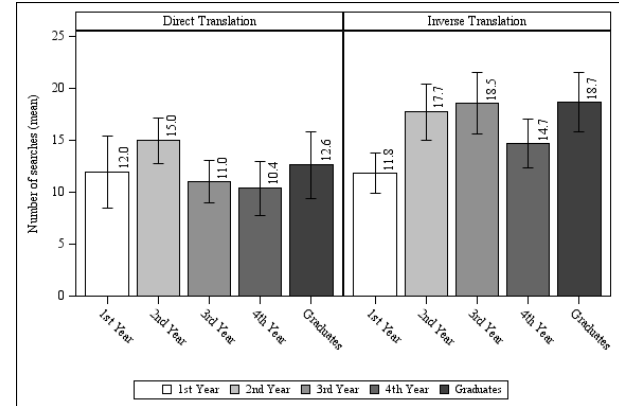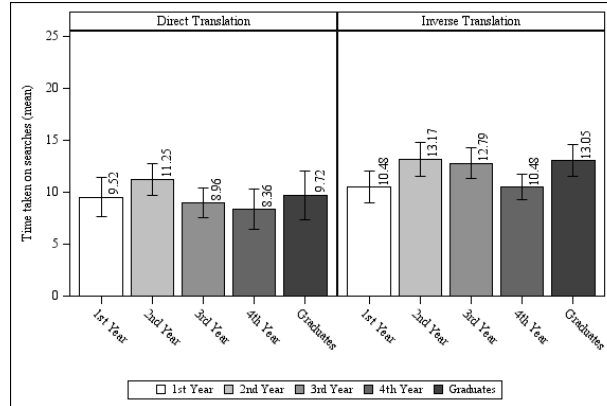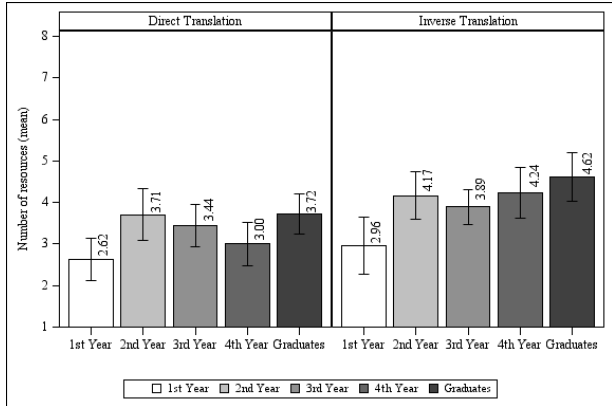
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Inverse translation	Mean
1st	0.31
2nd	0.36
3rd	0.39
4th	**0.51**
Graduates	0.49
Translators	0.52

There is a marked increase between 3rd and 4th year.

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Correlation between the indicators of the use of instrumental resources and the acceptability of the translation quality (r Spearman)						
	Direct translation			Inverse translation		
	Number of resources	Time taken on searches	Number of searches	Number of resources	Time taken on searches	Number of searches
1st Year	**0.55**	-0.13	0.04	0.18	-0.10	0.16
2nd Year	-0.07	-0.04	0.10	0.14	0.05	0.14
3rd Year	**0.29**	-0.00	0.03	-0.14	**-0.25**	**-0.40**
4th Year	**0.36**	**0.27**	**0.27**	-0.17	**-0.44**	-0.19
Graduates	-0.08	0.07	-0.01	**0.34**	0.08	**0.31**
Translators	No relationship	Negative relationship	No relationship	Positive relationship	Positive relationship	Positive relationship

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✓ In both direct and inverse translation, there are no positive nor negative correlations between the indicators of the use of instrumental resources and acceptability.

➢ Spending more time on searches, using a higher number of resources and performing a higher number of searches do not correlate with a better quality of the solutions

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VII. PROVISIONAL CONCLUSIONS

- When comparing the results of the indicators of the use of instrumental resources between professional translators and students:

  - It is observed that professional translators perform more searches and use a wider range of resources in less time than students do.

  - While multiple searches (5 or more) is the most frequent type of search in experts, it is the less frequently used one in students.

- In the variable "Decision-making", it was observed that students use external support (bilingual resources) to a greater extent than professional translators and experts do. However, professional translators and experts use predominantly internal support (all types of resources except bilingual resources). This may explain why professional translators and experts use a wider range of resources and searches than students do.

- It can be concluded that students use the instrumental resources in an inefficient way.

- These results prove that the use of instrumental resources depends on the students' internal support and therefore their specific necessities.

PROVISIONAL CONCLUSIONS

- It is important to stimulate the use of internal support in order to achieve a more efficient use of instrumental resources (learning to take decisions without using external support exclusively, evaluating documentation resources, etc).

- It is important to stimulate the efficient use of instrumental resources in translator training (to know how to establish the order and the priority of the searches, to know how to evaluate the quality and the possibilites of instrumental resources, etc.).

Our data has been obtained from students corresponding to a particular educational context.

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Thank you!

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