Researching academic genres and discourse with qualitative data analysis software tools

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Qualitative research is growing considerably across applied linguistics studies.

Qualitative research makes use of unstructured or non-numerical data to retrieve results and discuss findings.

Current research methods can be enhanced by means of qualitative data analysis.
Introduction

• Why qualitative data analysis to investigate the language, genres and discourse that prevail in academic settings?

Tendencies, behaviours, relationships and multiple realities are identified rather than counting data, obtaining averages and examining frequencies in their target researching contexts.

Qualitative data analysis “emphasize[s] words rather than quantification” (Bryman, 2008: 366).

Introduction

Computer assisted qualitative data analysis software (CAQDAS) → Advantages:

- Alleviate the tasks of manual coding
- Manage large data, including video and audios
- Speed up and ensure rigour to the coding process
- Facilitate data management, organisation and analysis
- Help to search and locate material
- Help to establish relationships between data (ideas, themes)
- Display the resulting networks from those data relationships
- Facilitate team work by combining individual projects
- Ensure more methodical, thorough and attentive work
- Lead to more professional results

Screenshot from an NVivo project
Introduction
Introduction


Aim: to identify a range of problems which confront Hong Kong Chinese scholars in writing for publication in English and which they feel put them at a disadvantage vis-à-vis native speakers of that language.

Data: (i) interviews to 26 Hong Kong scholars of a number of disciplines; (ii) a questionnaire.

Procedure: Data was loaded onto the ATLAS.ti software and sorted and resorted into categories. The aim was to look for both commonalities and differences within the groups of participants.
The study

**Research question:** What is the use of ATLAS.ti and Nvivo in academic discourse-related research?

**Data:** Qualitative research articles published in the lifetime of five prestigious journals in the field that have employed either ATLAS.ti or Nvivo for the analysis of data.

The journals under analysis are:
- English for Specific Purposes (ESP)
- Journal of English for Academic Purposes (JEAP)
- Journal of Pragmatics (JoP)
- Journal of Second Language Writing (JSLW)
- Written Communication (WC)
Results and findings

Figure 1: No. of articles using CAQDAS in target journals

<table>
<thead>
<tr>
<th>Journal</th>
<th>Nvivo</th>
<th>ATLAS.ti</th>
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</thead>
<tbody>
<tr>
<td>ESP</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>JEAP</td>
<td>14</td>
<td>2</td>
</tr>
<tr>
<td>JoP</td>
<td>7</td>
<td>4</td>
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<tr>
<td>JSLW</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>WC</td>
<td>8</td>
<td>2</td>
</tr>
</tbody>
</table>

Figure 2: Use of CAQDAS in target journals

- ATLAS.ti: 12 (23%)
- Nvivo: 40 (77%)
Results and findings

Figure 3: No of articles using CAQDAS and published per year in target journals

![Bar chart showing the number of articles using CAQDAS and published per year in target journals. The years 1999 to 2017 are labeled on the x-axis, and the number of articles are indicated by bars. The chart includes data for Atlas.ti and Nvivo.](chart.png)
Results and findings

Figure 4: Use of CAQDAS per country in target journals

Anglophone = 94% articles
Non-Anglophone = 6% articles
Results and findings

Figure 5: No. of articles using CAQDAS and published per country in target journals
Results and findings

Figure 6: Types of collection instruments matching CAQDAS-based research
Results and findings

Figure 7: No. of data collection instruments employed in target journals

- One instrument: 13%
- Two instruments: 54%
- Three instruments: 23%
- Four instruments: 8%
- Five instruments: 2%
## Results and findings

<table>
<thead>
<tr>
<th>Main data collection instrument</th>
<th>Specific data collection tool</th>
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<tbody>
<tr>
<td><strong>Digital genres</strong></td>
<td>Conversations posted on Facebook walls</td>
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<td>Discussion forum</td>
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<td>Email interviews</td>
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<td>Email messages</td>
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<td>On-line discussions</td>
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<td>Academic homepages</td>
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<td></td>
<td>Researcher blogs</td>
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<tr>
<td><strong>Others</strong></td>
<td>Scoring rubrics</td>
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<td></td>
<td>Tests</td>
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<td>Role-play instructions</td>
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<td>Grade definitions from writing programs</td>
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<td>Tutor feedback</td>
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<td>Masters' feedback texts</td>
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<td></td>
<td>Corpora of spoken and written English</td>
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<td></td>
<td>Class materials</td>
</tr>
</tbody>
</table>

Table 1: Examples of collection instruments and tools in target studies.
Concluding remarks

- The qualitative data analysis of academic genre and discourse corpora can be efficiently supported by computer-aided tools.
- ATLAS.ti and NVivo stand out as the most popular for the investigation of discourse and genre in academic settings. NVivo is gradually exceeding ATLAS.ti as the most popular tool in the target journals.
- The use of both tools has risen during the last decade, and particularly among Anglophone researchers.
Concluding remarks

☑ Despite CAQDAS capabilities, the number of studies analysing non-textual sources is very scarce and research is mostly text-based. The latest communication modes featuring in social media and web content have not yet been the object of investigation in this context.

☑ The use of more than one instrument prevails when collecting data so greater effort and more time is needed to efficiently code data from a variety of sources.

☑ Researchers would highly benefit from specific training on qualitative research procedures and coding and, particularly, on the use of dedicated software tools such as ATLAS.ti and Nvivo.
Concluding remarks

Everything that can be counted does not necessarily count; everything that counts cannot necessarily be counted.

Albert Einstein
Acknowledgements

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