# Shift Happens: A Review of Topic Change During Conversation

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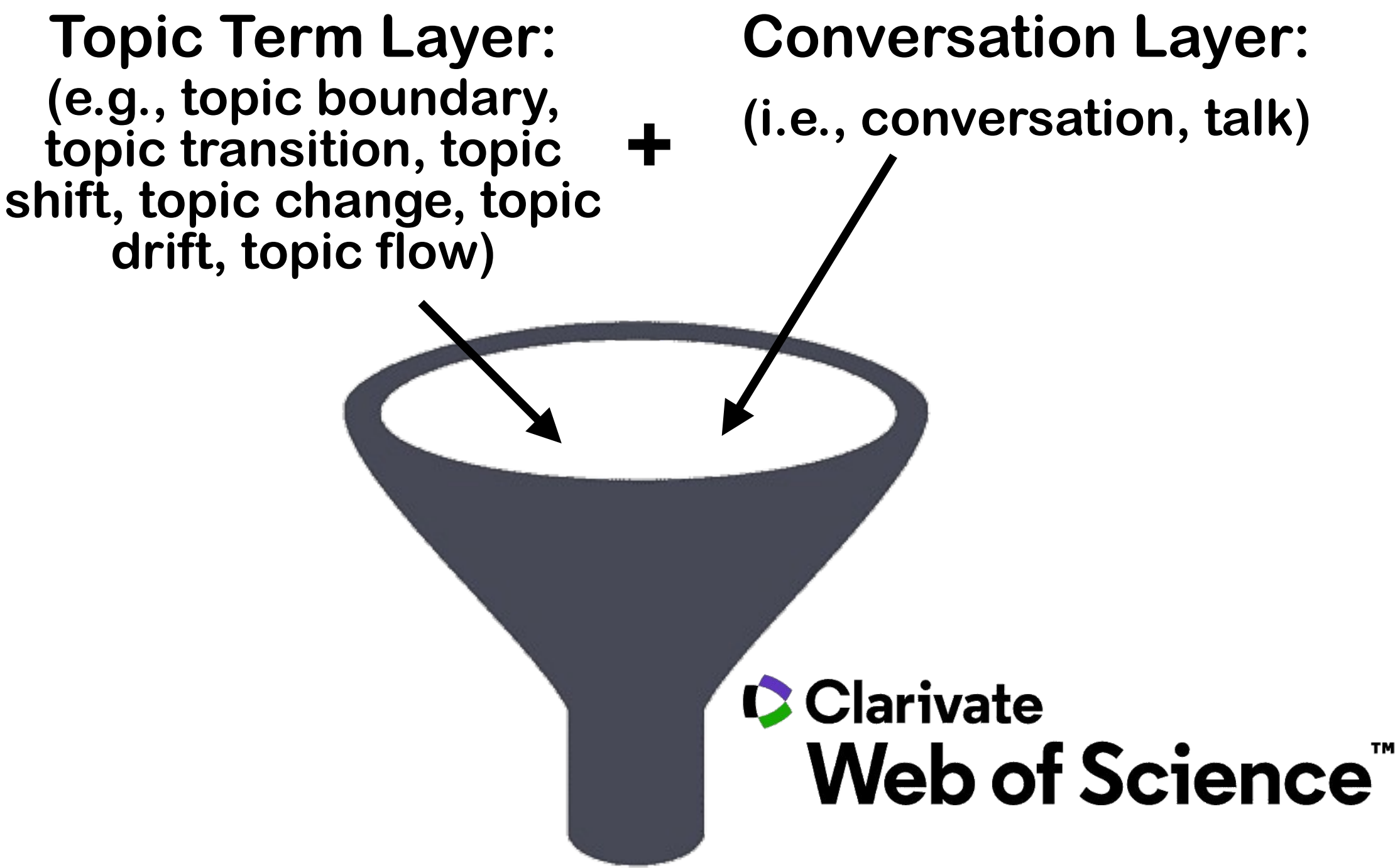University of Minnesota

LOL Lab

Language Of Learning Lab

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## Poster Overview:

- Topics dynamically change over time – influencing the direction of conversation
- Studying the complexity of discourse patterns is crucial to understanding perceptions of communication success
- Studying topic change is difficult due to a wide variety of theoretical lenses, methodologies, & analytical techniques
- To address this, I conducted a systematic review on how changes in topics are defined and assessed across a variety of sub-fields and mediums

## Method:

**Topic Term Layer:**
(e.g., topic boundary, topic transition, topic shift, topic change, topic drift, topic flow)

**+**

**Conversation Layer:**
(i.e., conversation, talk)

Clarivate Web of Science™

Results in 253 total papers

101 papers not relevant

A total of 152 papers will be reviewed
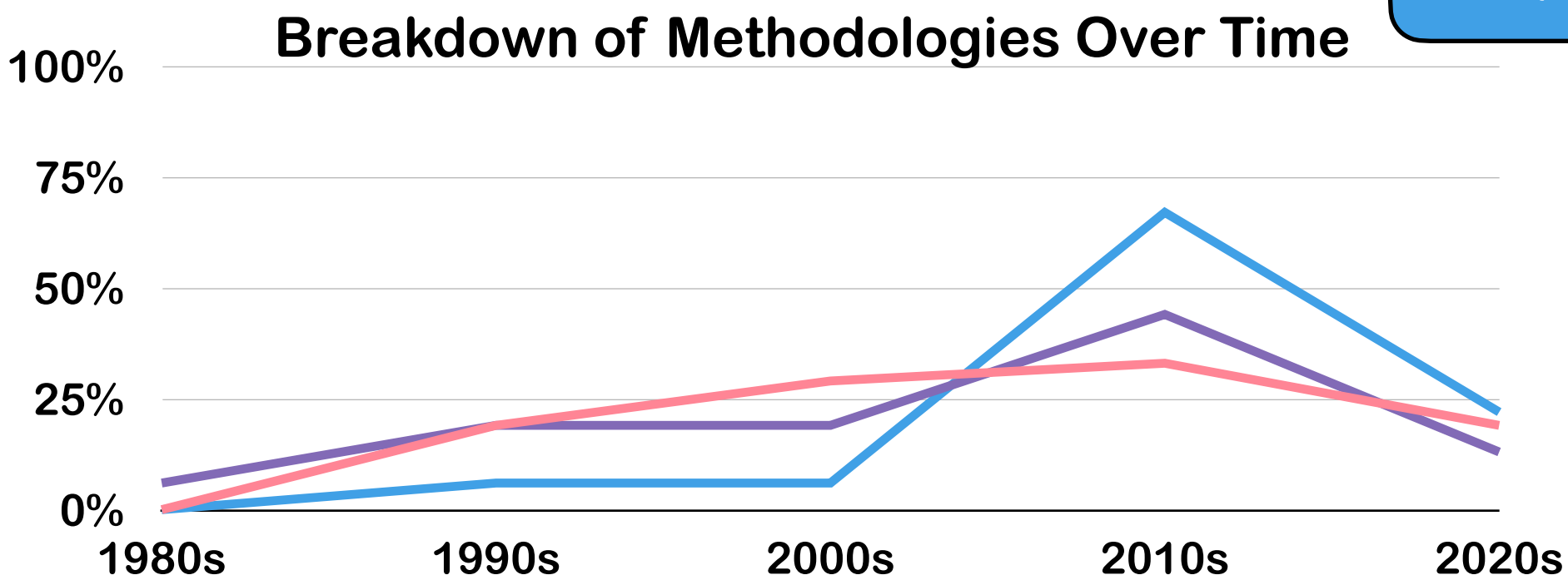
97 papers remain to be analyzed

This poster covers 55 papers

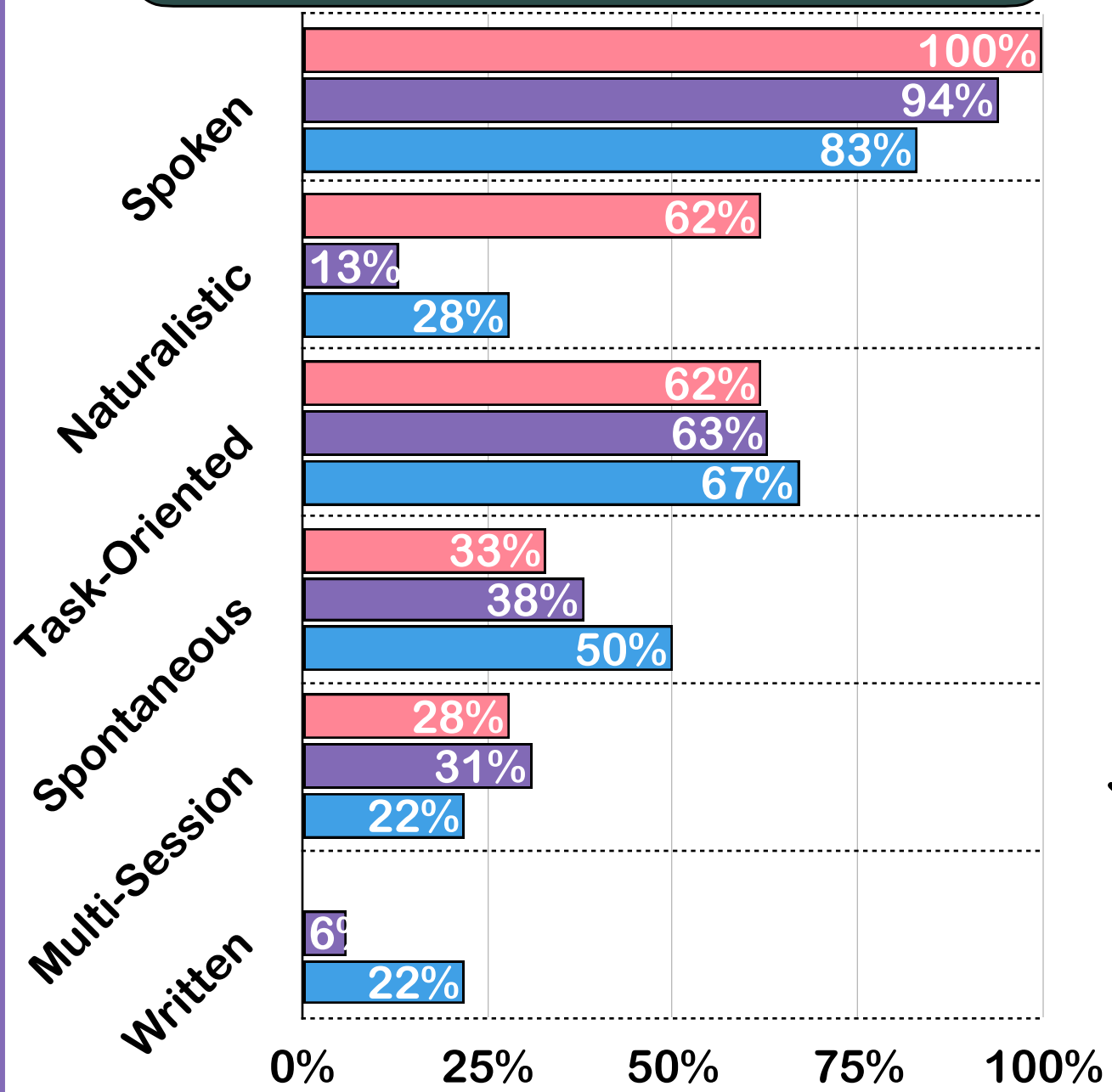Qualitative (n=21)

Mixed-Methods (n=16)
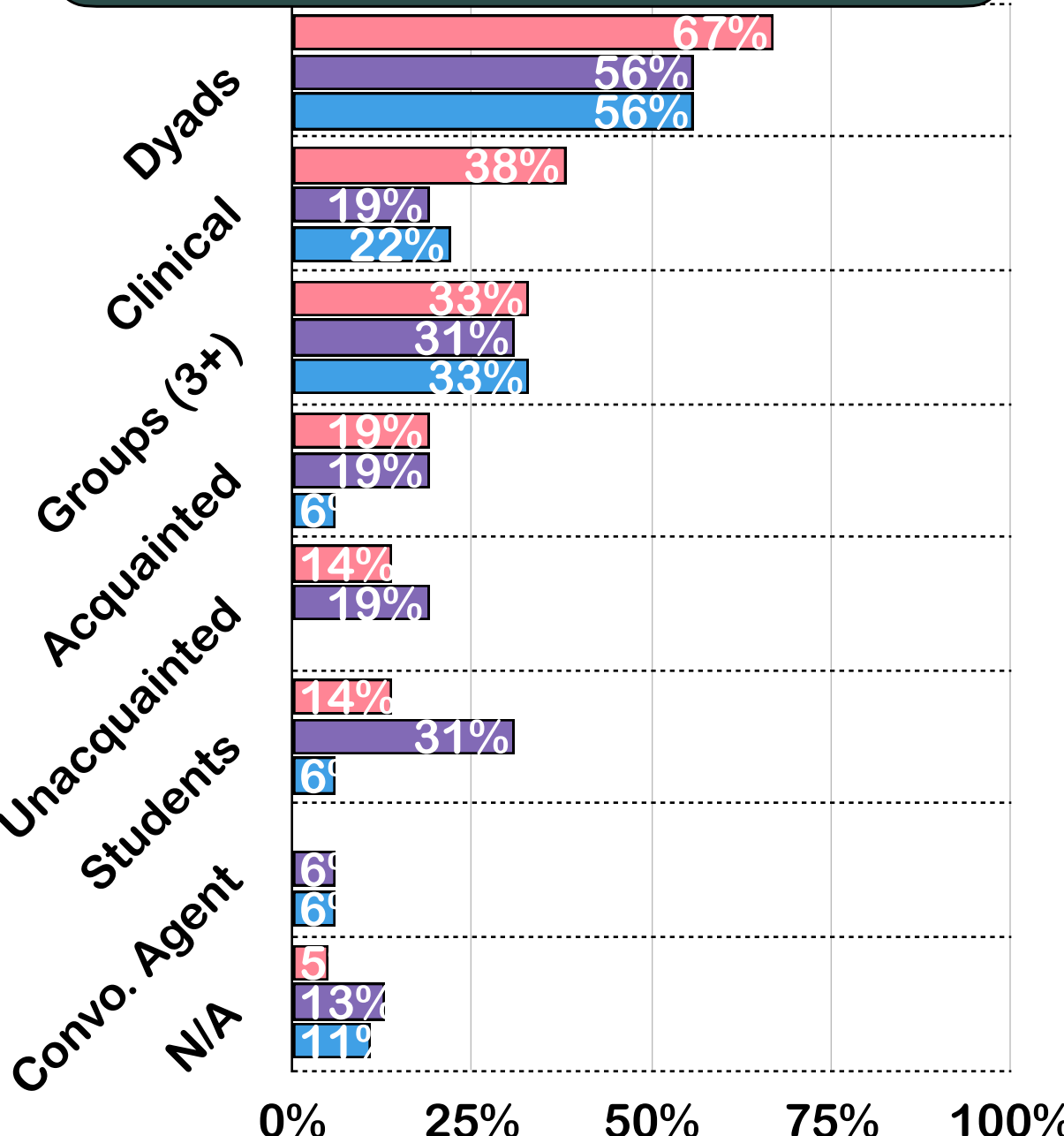
Quantitative (n=18)

**Breakdown of Methodologies Over Time**

## Shifting Typologies

1. **Disjunctive Transition (x5):** the attempted topic changes are not gradual but have clear boundaries **[8]**; work to disengage the forthcoming turn from being tied or connected to, or coherent with, its prior turn **[26]**; usually introduce a markedly different matter to the one discussed previously and are therefore radical topic changes **[55]**; make no attempt to relate the new topic to the previous topic, switching abruptly to the new topic without acknowledging the previous topic **[42]**

2. **Stepwise Transition (x5):** gradual changes achieved by the use of a conversational 'pivot' which is related to what has gone before but also adds something new, which is then taken up as the topic **[6]**; current topic of merges almost imperceptibly into the next, in a seamless "stepwise" progression **[26]**; without any boundary transitions from one topic to another **[50]**

3. **Topic Shift (x4):** an outright topic shift using transition markers or shading devices **[28]**; used to signal lack of interest in the current speaker and the topic **[47]**; when topic shifts to another related but different topic or subtopic **[54]**; the topic sequence under discussion is the source for the introduction of a new topic **[21]**

4. **Explicit Topic Shift (x3):** a segment that contained all the necessary semantic elements for its complete comprehension **[32]**; marked, bounded topic shifts **[50]**

5. **New Topic (x3):** current utterance introduces a new topic **[13]**; a topic that has not occurred previously in the conversation **[21]**; any topic shift made by the subject from the current topic of discussion to one that had not been discussed **[49]**

6. **Topic Insert (x3):** an (often) abrupt shift that does not succeed in gaining the topical floor **[15, 32]**; in which the speaker inserts a new topic within the framework of a previous one **[28]**

7. **Topic Shading (x3):** introduces a new topic by first establishing its relevance to or connection with the topic that has been on the floor **[15, 32]**; analogous to stepwise transitions **[55]**
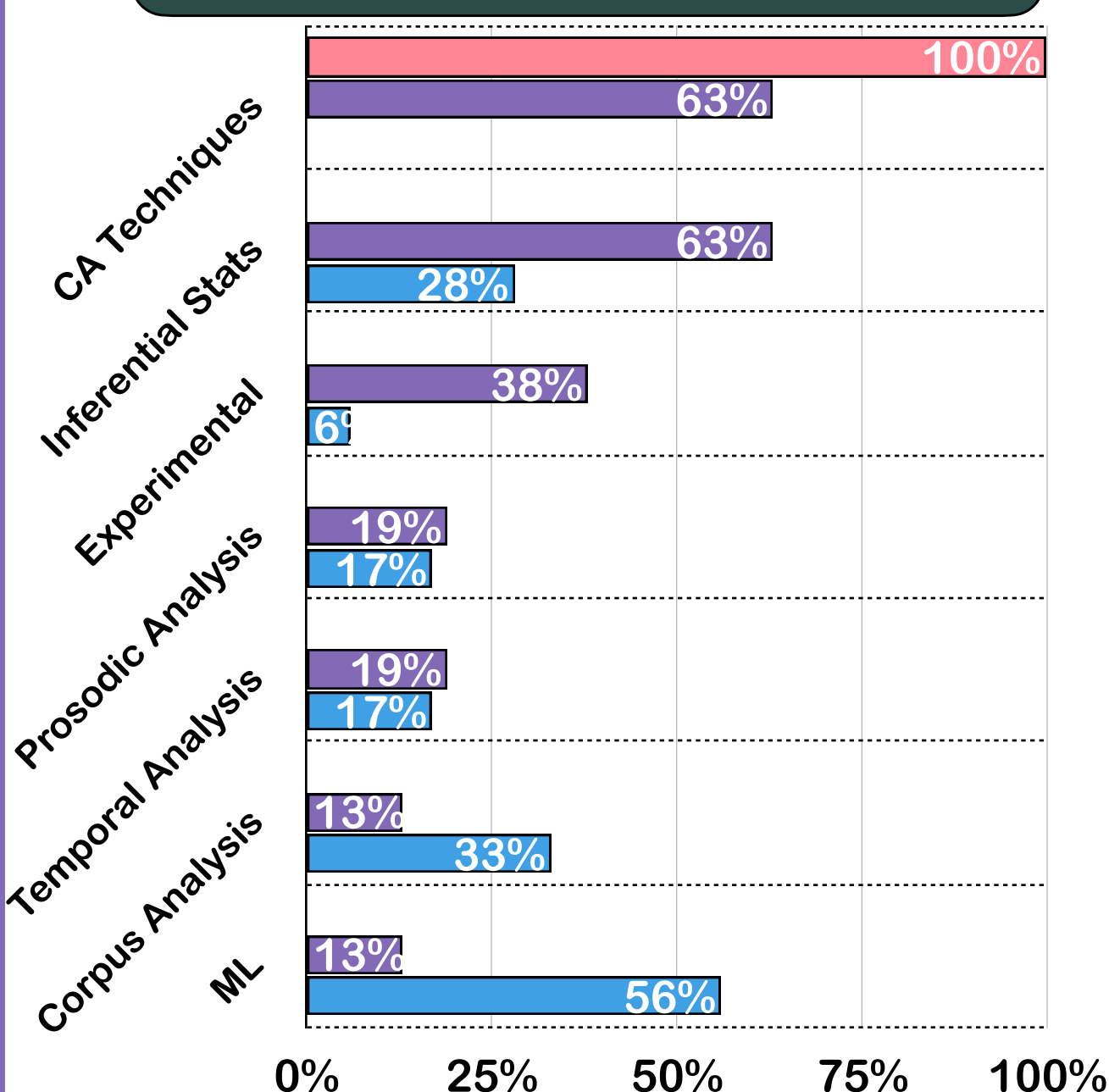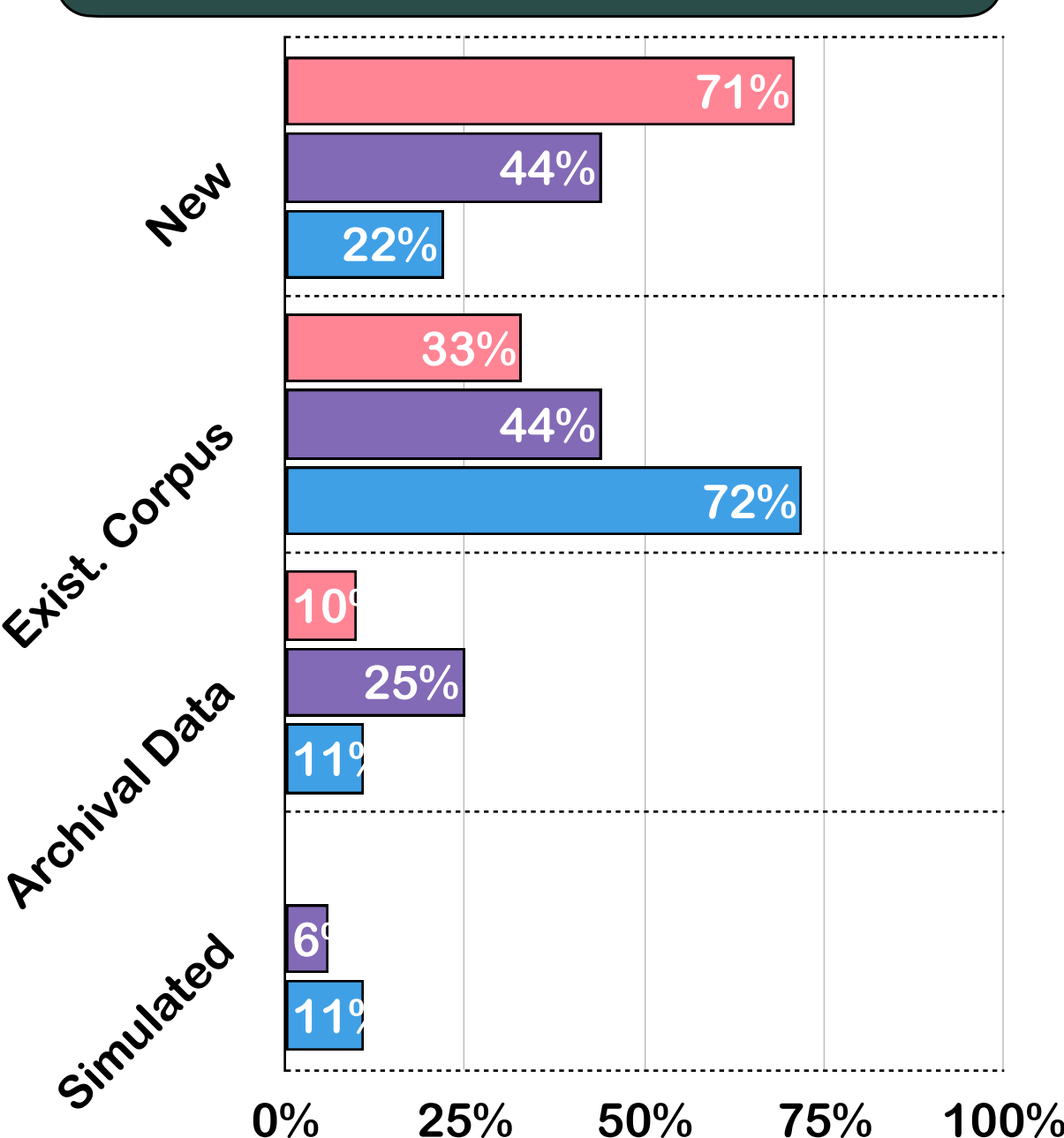
## What type of discourse is used?

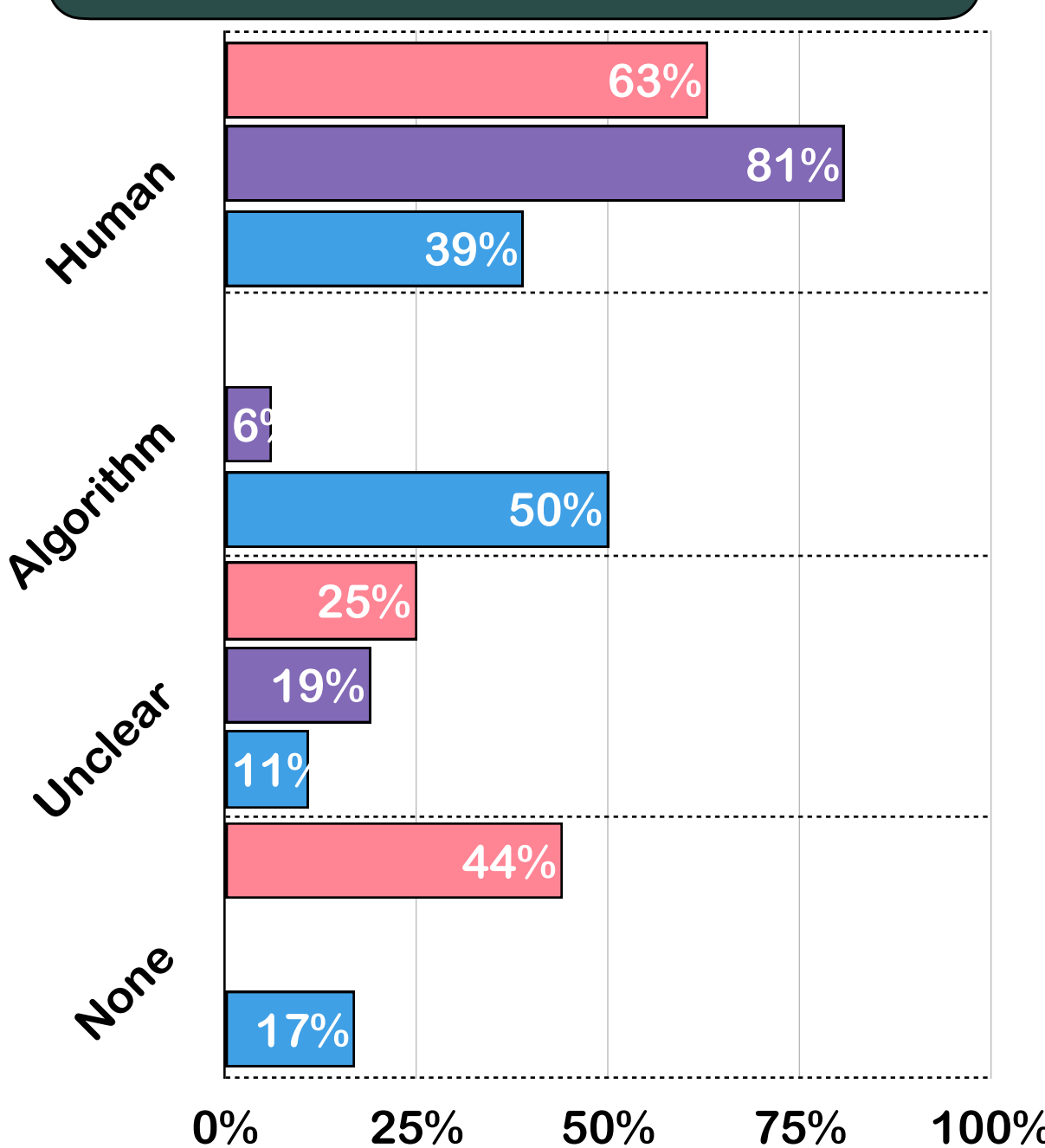| | |
|---|---|
| Spoken | 100% / 94% / 83% |
| Naturalistic | 62% / 13% / 28% |
| Task-Oriented | 62% / 63% / 67% |
| Spontaneous | 33% / 38% / 50% |
| Multi-Session | 28% / 31% / 22% |
| Written | 6% / 22% |

## What populations are used?

| | |
|---|---|
| Dyads | 67% / 56% / 56% |
| Clinical | 38% / 19% / 22% |
| Groups (3+) | 33% / 31% / 33% |
| Acquainted | 19% / 19% / 6% |
| Unacquainted | 14% / 19% |
| Students | 14% / 31% |
| Convo. Agent | 6% / 6% / 13% |
| N/A | 11% |

## What analytical methods are used?

| | |
|---|---|
| CA Techniques | 100% / 63% |
| Inferential Stats | 63% / 28% |
| Experimental | 38% / 6% |
| Prosodic Analysis | 19% / 17% |
| Temporal Analysis | 19% / 17% |
| Corpus Analysis | 13% / 33% |
| ML | 13% / 56% |

## Where is the data coming from?

| | |
|---|---|
| New | 71% / 44% / 22% |
| Exist. Corpus | 33% / 44% / 72% |
| Archival Data | 10% / 25% / 11% |
| Simulated | 6% / 11% |

## Who are shifts annotated by?

| | |
|---|---|
| Human | 63% / 81% / 39% |
| Algorithm | 6% / 50% |
| Unclear | 25% / 19% / 11% |
| None | 44% / 17% |

## What fields do this work?

| | |
|---|---|
| Linguistics | 71% / 63% / 22% |
| Comp. Sci. | 5% / 25% / 72% |
| Psych. | 14% / 43% / 11% |
| SLP | 14% / 21% / 11% |
| Education | 14% / 14% / 6% |
| Neuro. | 10% / 7% / 6% |