

# Are You With Me? Classroom Discourse, Teacher Questions, and Student Vocabulary Development

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Funded by Institute of Educational Sciences

# Instructional Talk & Literacy Outcomes

## Programmatic Instructional Talk

- Promote more student talk, literal, & inferential comprehension, cognitive strategies (elaboration, predicting, etc.) (Chinn, Anderson & Waggoner, 2001); as well as critical reasoning & argumentation skills (Murphy et al., 2009)
- Productive discussions that promote high levels of comprehension are characterized by: increased student uptake, student control of discussions, & authentic questions (Soter et al., 2008)

## Unprogrammatic Instructional Talk

- Code-focused & meaning-focused instruction predictive of early reading outcomes (Connor et al., 2007)
- Discussion-based approaches & high academic demands related to secondary literacy achievement (Applebee et al., 2003)
- Questions play role in students' construction of knowledge (Nystrand et al., 2003) and in the rigor of reading comprehension lessons (Wolf, Crosson & Resnick, 2004); student questions scaffold thinking & opportunities for conceptual development through argumentation (Chin & Osborne, 2010)

# Rationale

- Most research on unprogrammatic talk conducted in early elementary and secondary settings
- Need for greater focus on upper elementary settings:
  - Shift from learning to read to text-driven learning (Chall)
  - Curricula demand more complex language and literacy skills
  - Teaching becomes more domain-specific
  - Later reading development & discourse communities are variable processes & contexts
- Studies of teacher/classroom talk rarely related to student outcomes

# Current study

**RQ 1:** What is the nature of the teachers' literacy instructional discourse?

**RQ 2:** What is the nature of third- and fourth-grade student performance from fall to spring on measures of reading comprehension and vocabulary knowledge?

**RQ 3:** What are the connections between fall-spring language and literacy gains at the student level and literacy instructional discourse at the teacher level?

# Participants

1 MA semi-urban school district

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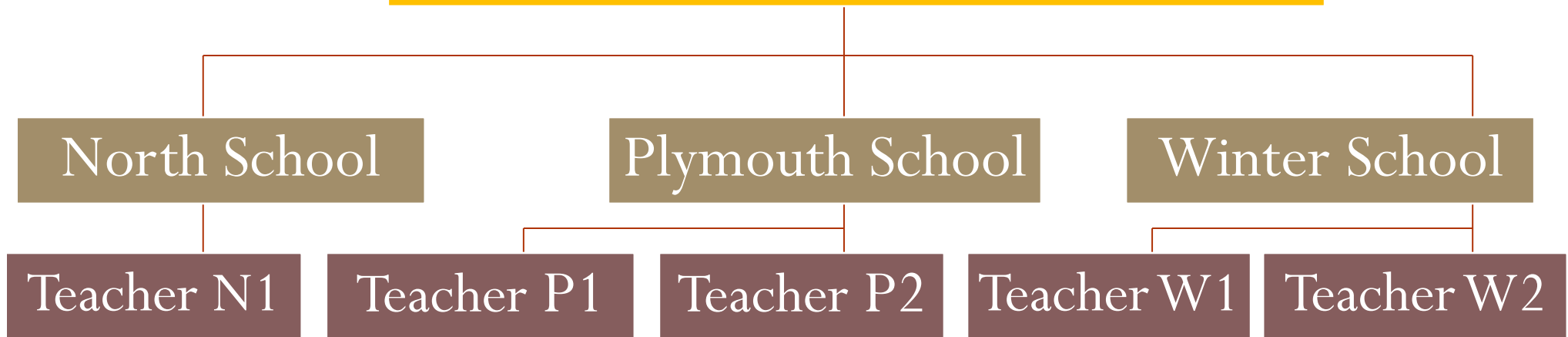
North School

Plymouth School

Winter School

# Participants

1 MA semi-urban school district



- **Teachers**

- 3 third-grade
- 2 fourth-grade teachers
- Average 7.4 years teaching (range 2 - 23 years)
- 4 female, 1 male
- All monolingual English speakers

# Participants

1 MA semi-urban school district

North School

Plymouth School

Winter School

Teacher N1

Teacher P1

Teacher P2

Teacher W1

Teacher W2

4 focal students

5 students

7 focal students

5 focal students

4 focal students

1 bilingual

3 bilingual

4 bilingual

1 bilingual

2 bilingual

3 monolingual

2 monolingual

3 monolingual

4 monolingual

2 monolingual



# Methods

## Procedure

- 3 observations / class (Teacher P2 had 2 observations)
  - 1 - 1.5 hours
  - Conducted March-April, 2010
  - Language arts / literacy class time chosen by each teacher
  - Audio recording: 2 focal students mic'd, captured all teacher talk
  - Field notes

# Measures (Teacher Level)

## Classroom observation codes:

- Field notes of literacy lessons coded for:
  - Lesson content: literacy concepts, word study, poetry, reading, writing, test prep
  - Interaction: teacher- vs. student-managed
  - Context: whole group, small group, pair, individual
  - Instructional delivery: lecture, modeling, guided practice, independent practice, discussion, giving directions, round-robin reading

# Measures (Teacher level): Coding scheme

Teacher Talk

```
graph TD; A[Teacher Talk] --- B[Provisions (providing info)]; A --- C[Requests];
```

Provisions (providing info)

Requests

# Measures (Teacher level): Coding scheme

## Teacher Talk

### Provisions (providing info)

#### Vocabulary

Definitions  
Examples  
Morphology  
Semantics  
Phonology  
Syntax

#### Comprehension

Scaffolds  
-summarize  
-read aloud  
-answer  
-background  
Strategies  
-comp monitor  
-genre

#### Other

Confirmations, Pronunciation  
Procedural

### Requests

#### Vocabulary

Definitions  
Examples  
Morphology  
Semantics  
Phonology  
Syntax

#### Comprehension

Strategies  
-summarize  
-predict  
-infer, etc.  
Text info.  
General understanding

#### Other

Confirmations, Rephrasing  
Read aloud, participation

# Measures (Student Level)

## **Student Measures**

### **Reading Comprehension:**

- Gates–MacGinitie (MacGinitie, Maria, & Dreyer, 2002)
- WMLS-R Passage Comprehension subtest (Woodcock et al., 2005)

### **Vocabulary Depth:**

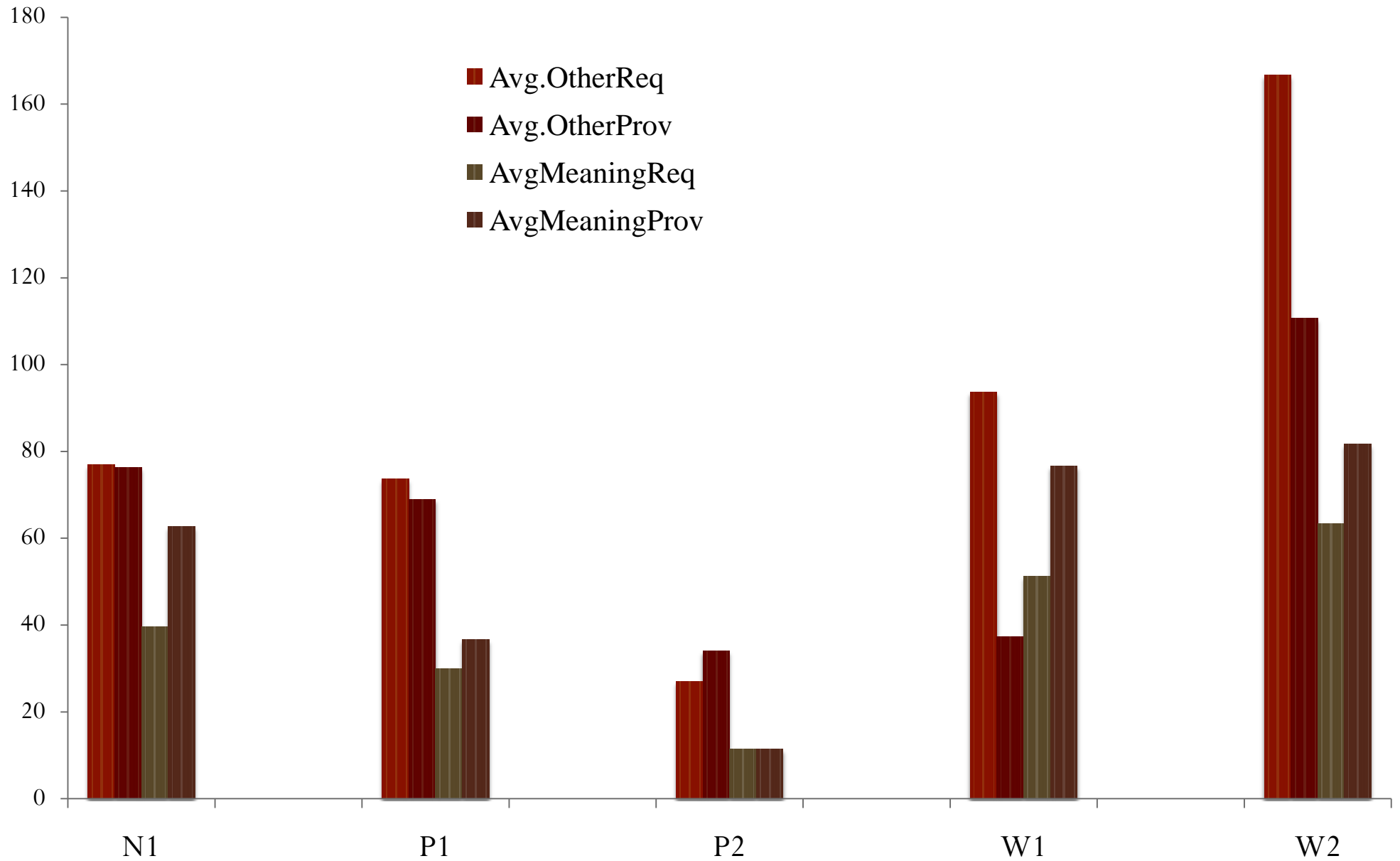
- Morphology: Extract the Base test (August et al., 2001)
- Semantics: CELF Word Classes 2 subtest (Semel, Wiig, & Secord, 2003).
- Syntax: CELF Formulated Sentences (Semel, Wiig, & Secord, 2003).

# RQ 1: What is the nature of the teachers' literacy instructional discourse?

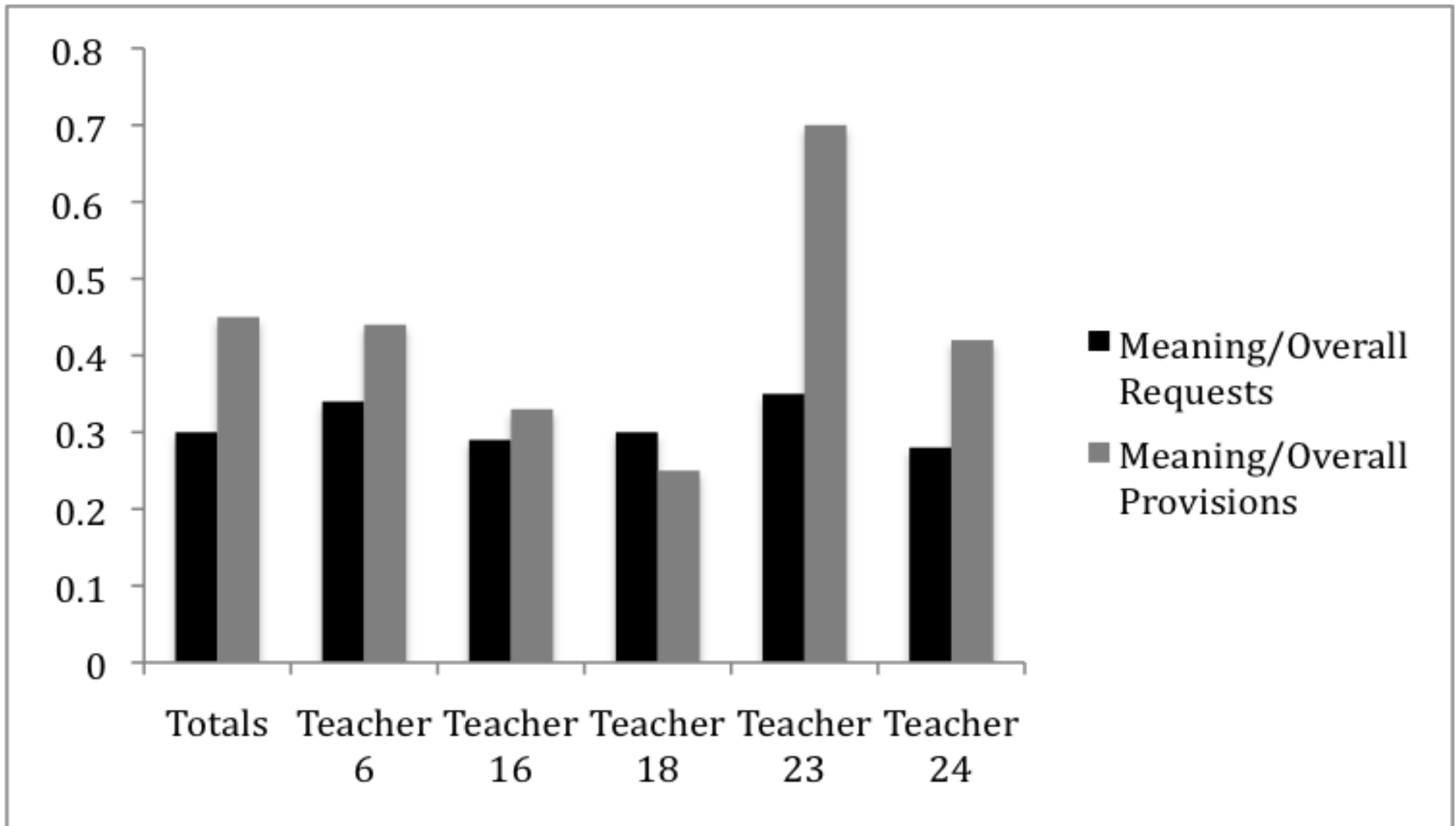
## **Classroom observation (field notes) codes:**

- Context of literacy lessons:
  - Lesson content: varied by teacher
    - literacy concepts, word study, poetry, reading, writing, test prep
  - Interaction: predominantly teacher-managed
  - Context: predominantly whole group
  - Instructional delivery: varied by teacher, but all used guided practice with other delivery:
    - lecture, modeling, guided practice, independent practice, discussion, giving directions, round-robin reading
  - Teachers with high numbers of meaningful requests had high meaningful provisions ( $r = .87, p < .001$ )

# Average Meaning and Other Requests and Provisions



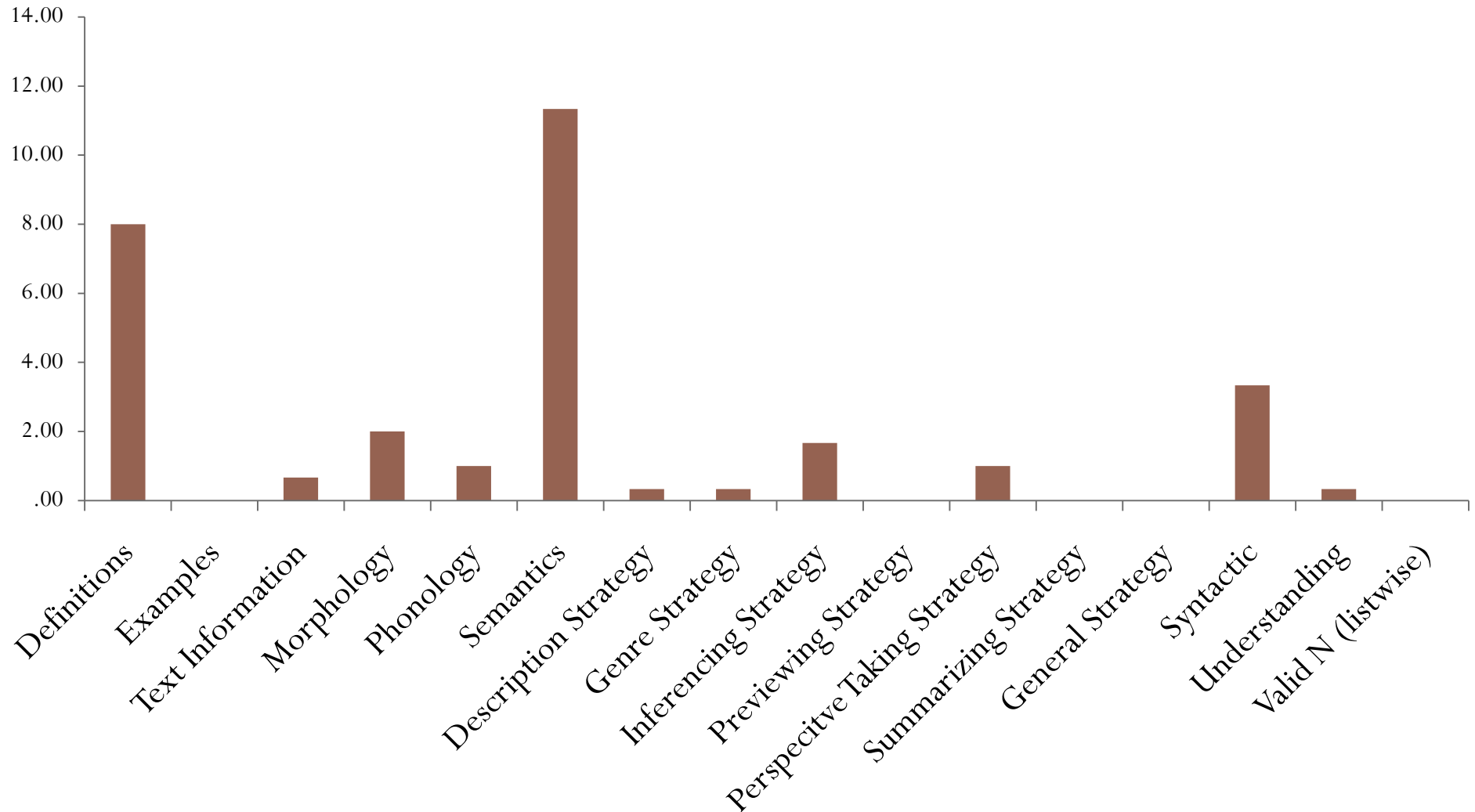
# Average Meaning to Overall Requests & Provisions





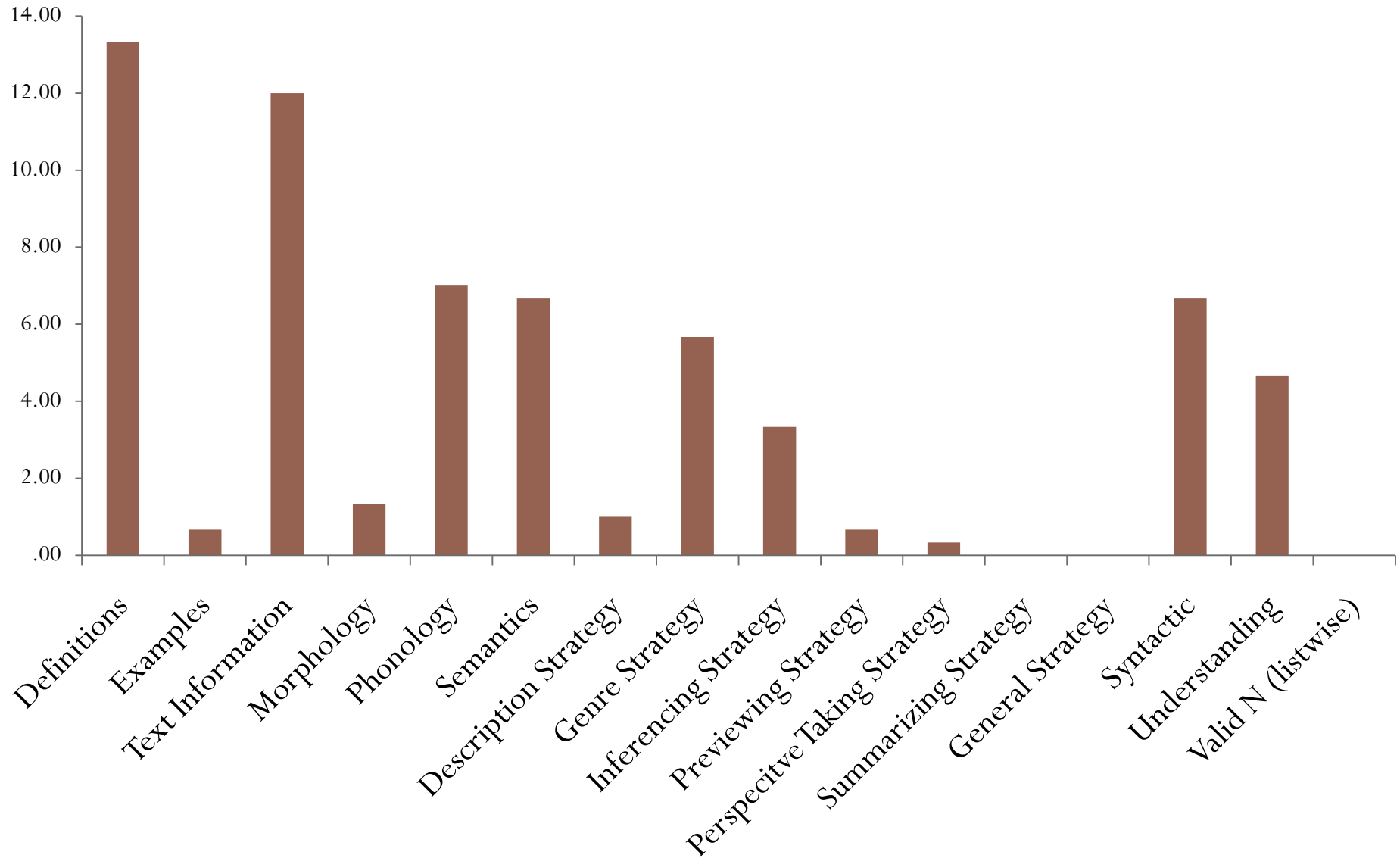
# RQ 1: What is the nature of the teachers' literacy instructional discourse?

**Teacher P1**



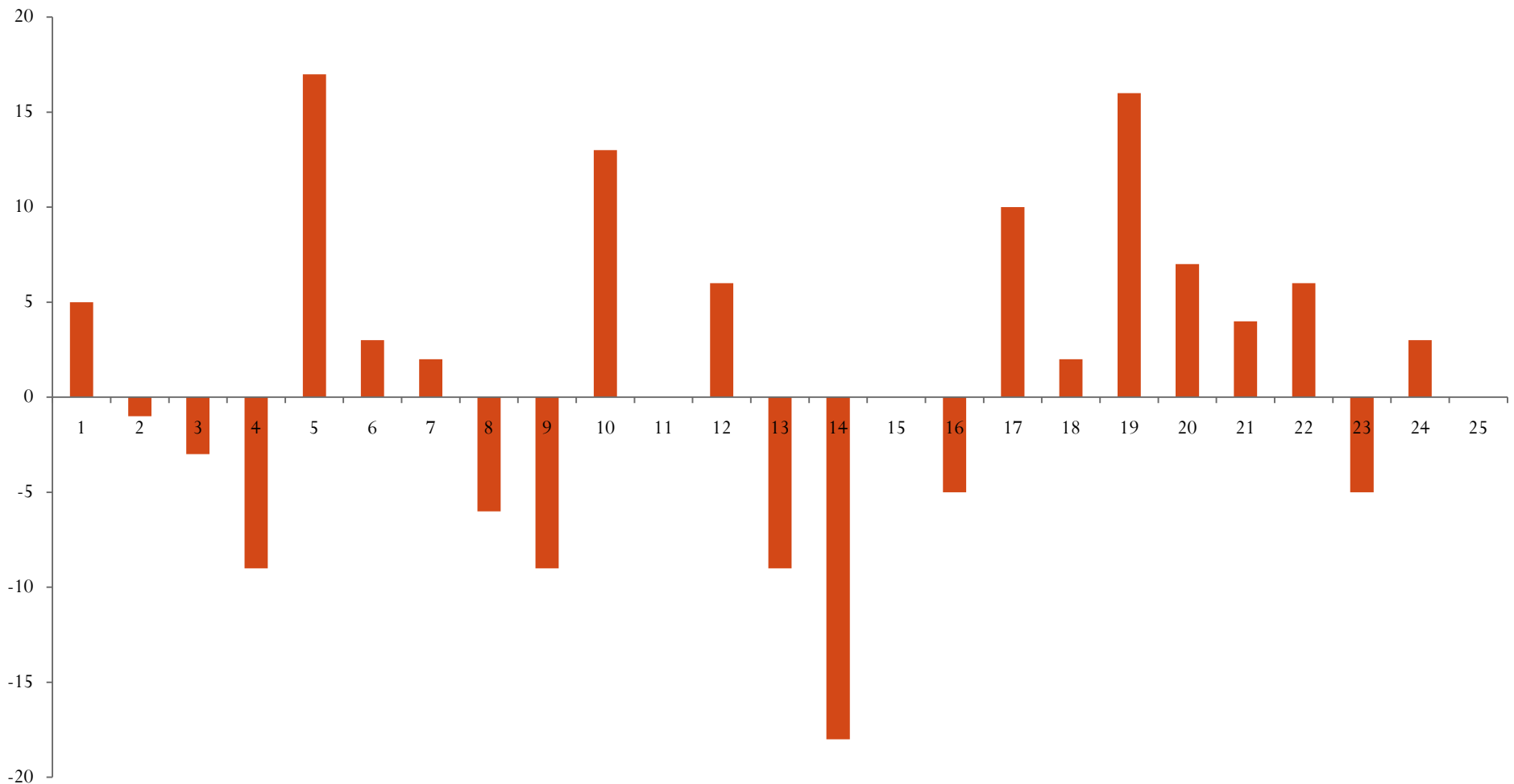
# RQ 1: What is the nature of the teachers' literacy instructional discourse?

Teacher W2

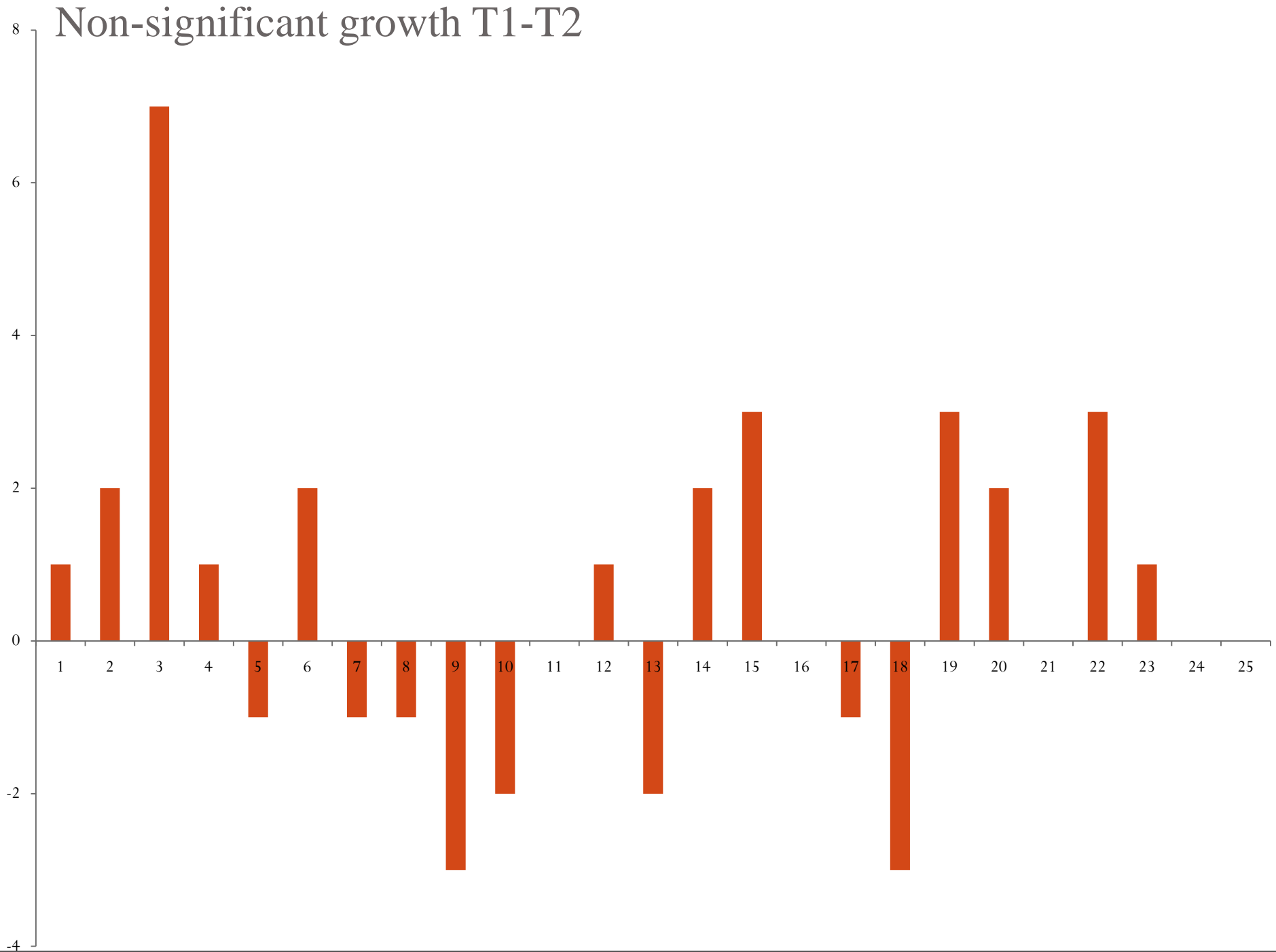


# RQ 2: What is the nature of third- and fourth-grade student performance from fall to spring on measures of reading comprehension and vocabulary knowledge?

**Gates Gain**  
**Non-Significant Growth T1-T2**

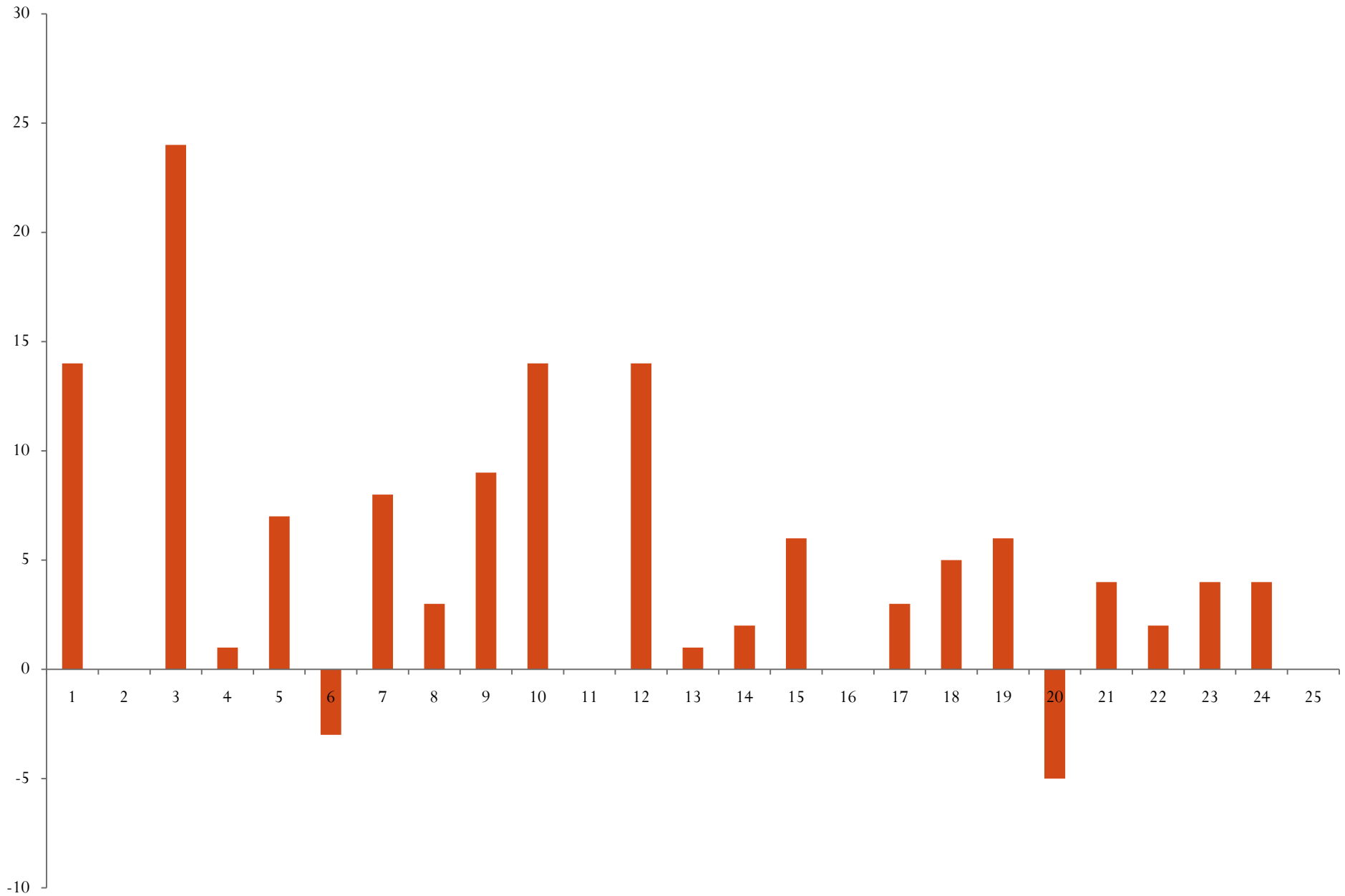


# Woodcock Passage Comprehension



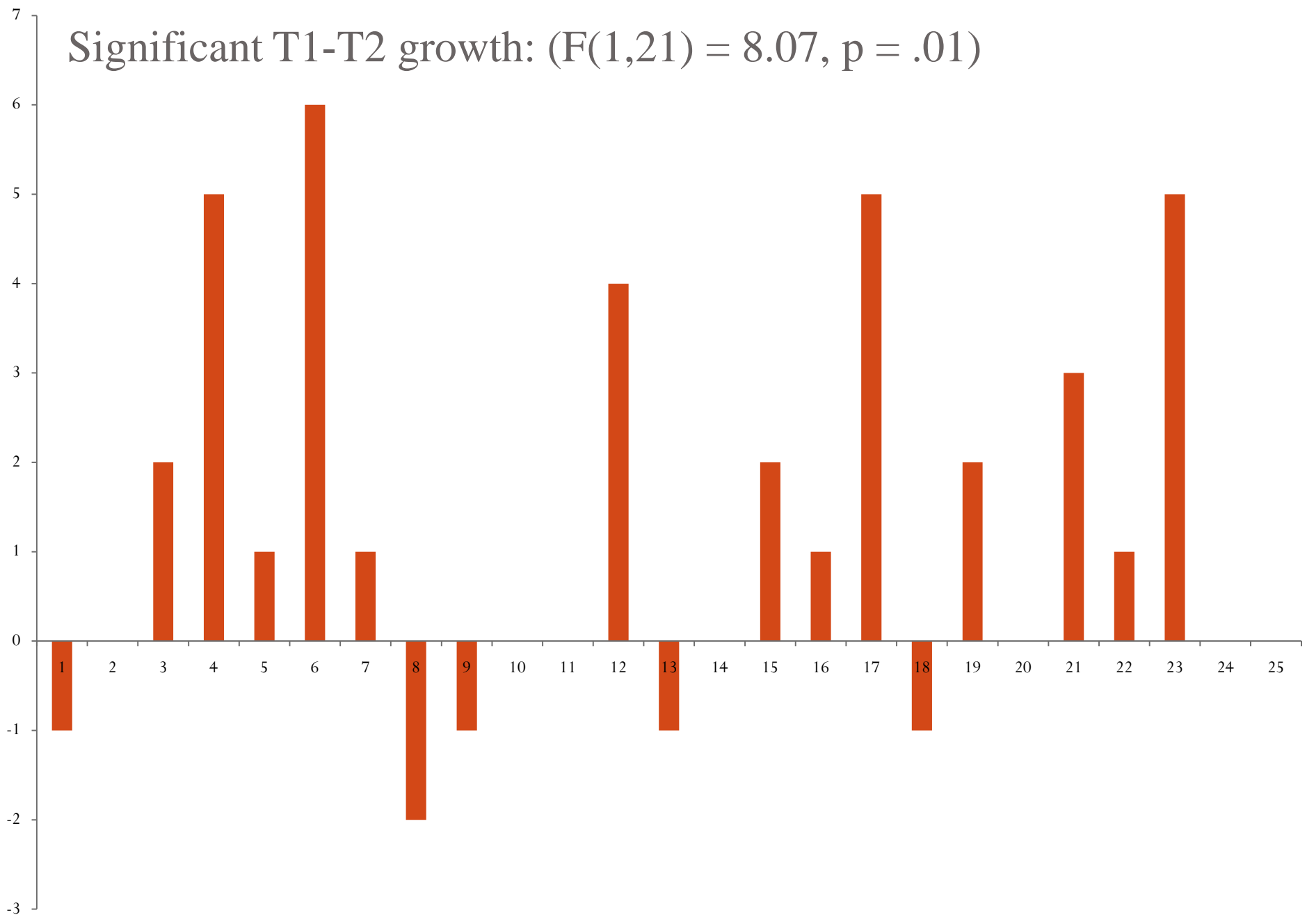
# Morphological Awareness Gain

Significant T1-T2 growth: ( $F(1,21) = 15.51, p = .001$ )



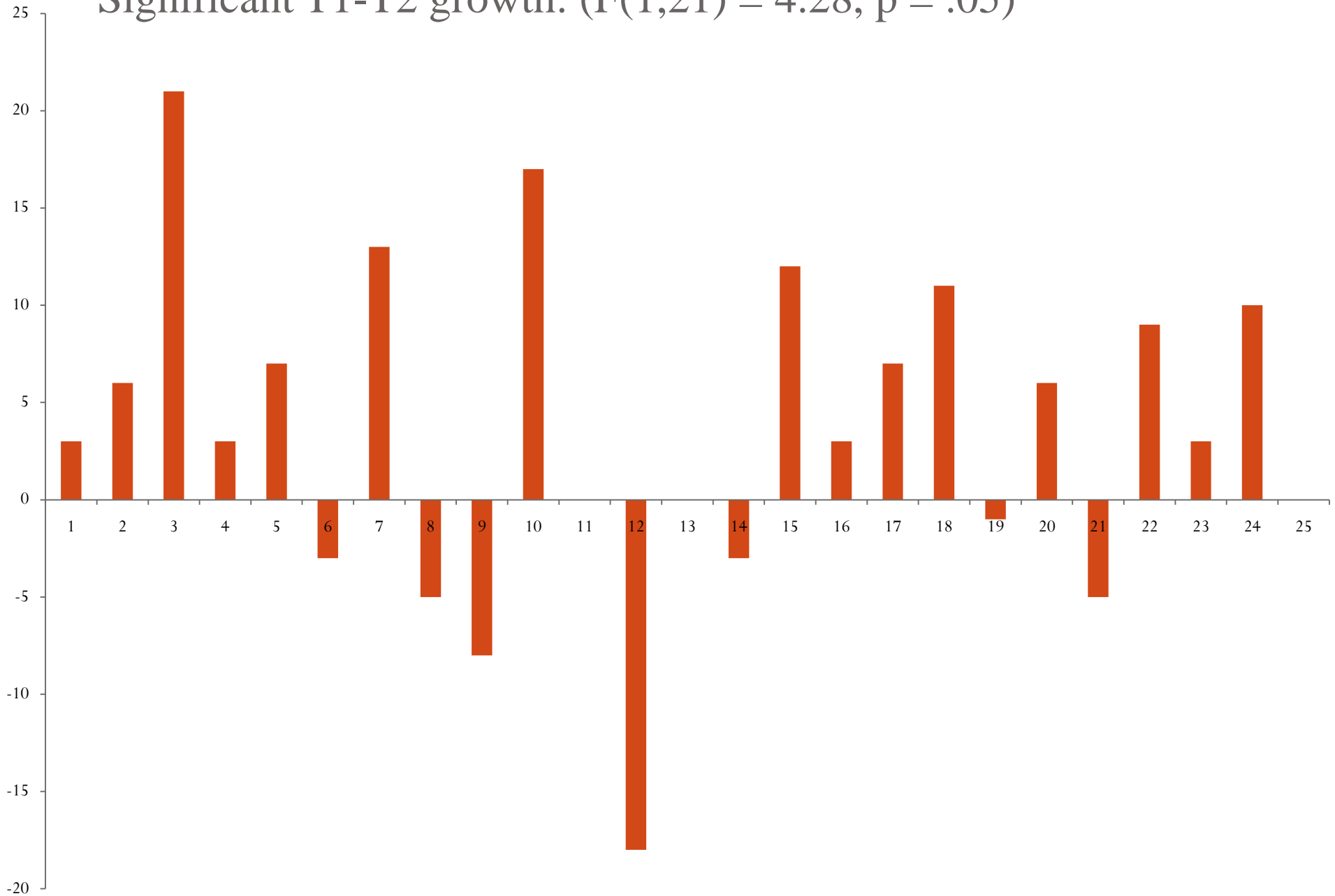
# Semantic Awareness Gain

Significant T1-T2 growth: ( $F(1,21) = 8.07, p = .01$ )

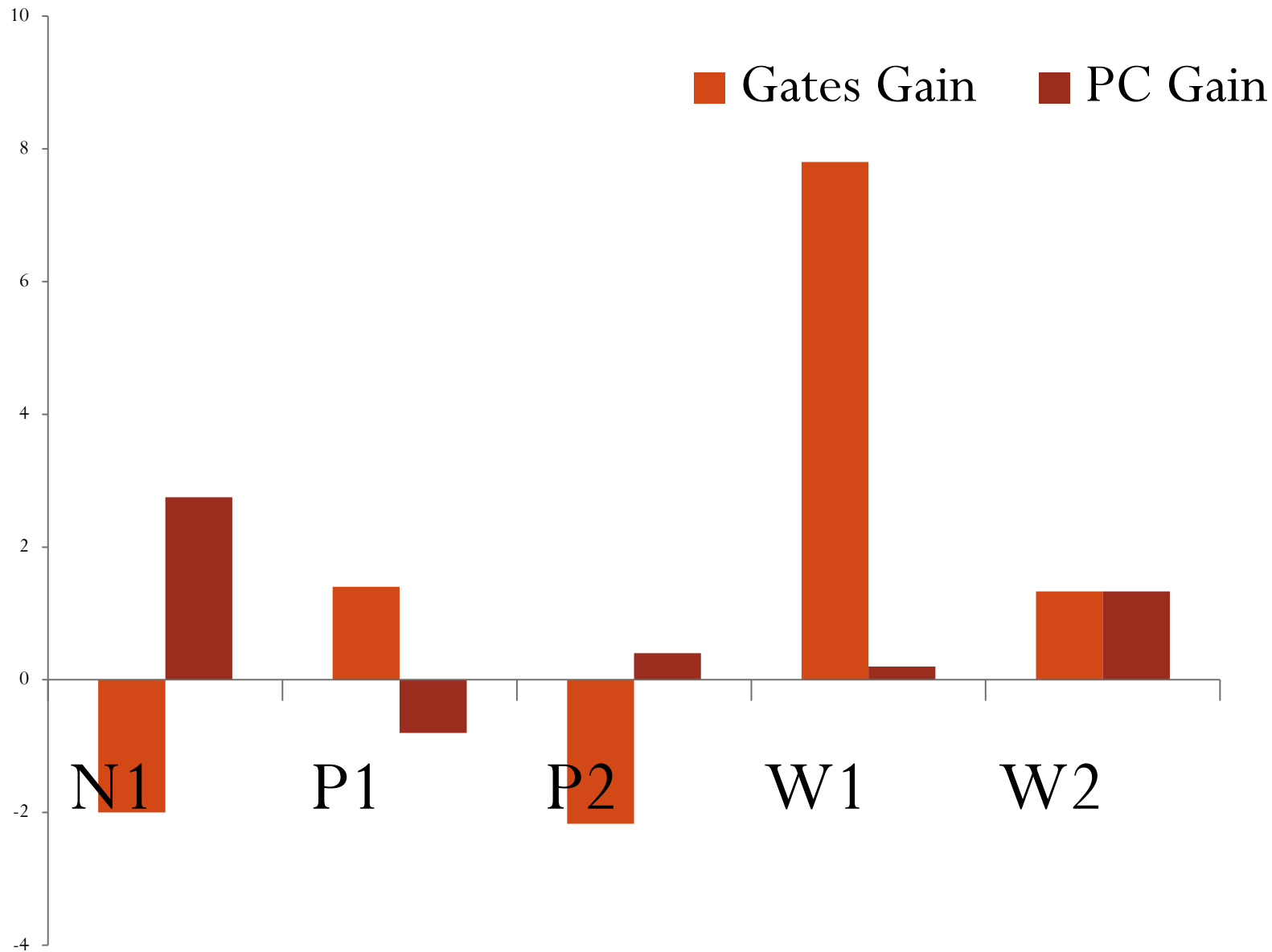


# Syntactic Knowledge Gain

Significant T1-T2 growth: ( $F(1,21) = 4.28, p = .05$ )

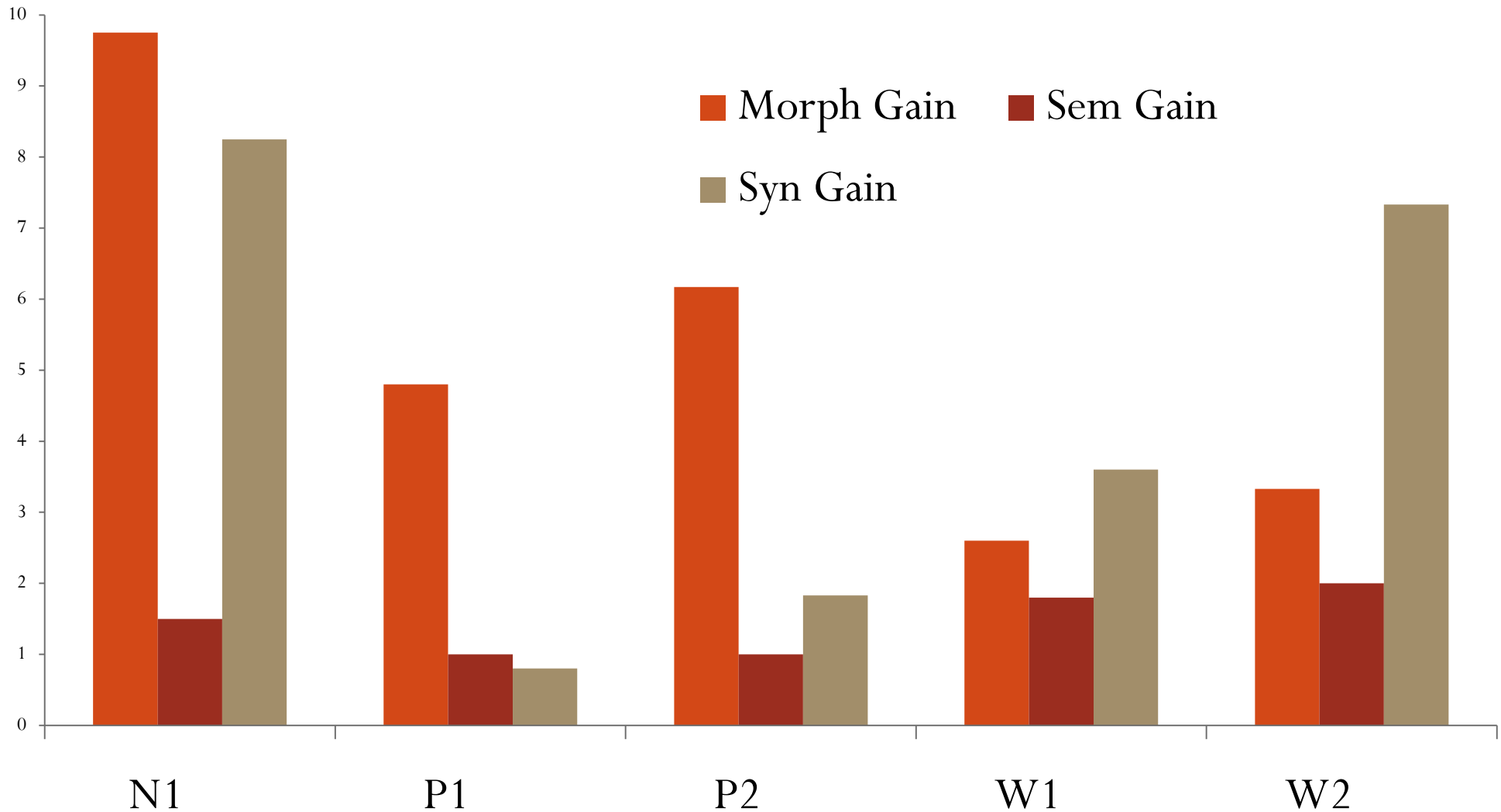


**RQ 3:** What are the connections between fall-spring language and literacy gains at the student level and literacy instructional discourse at the teacher level?

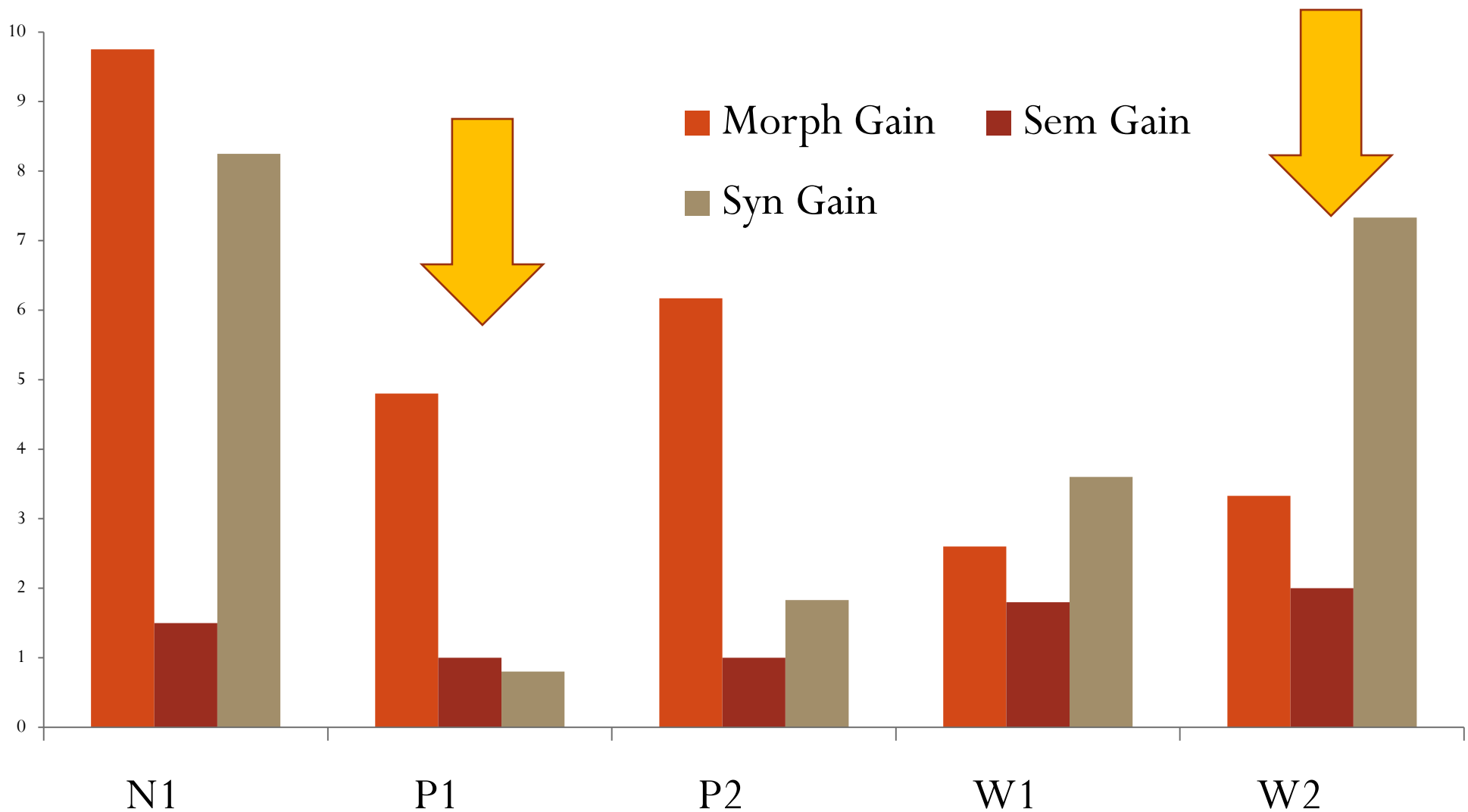




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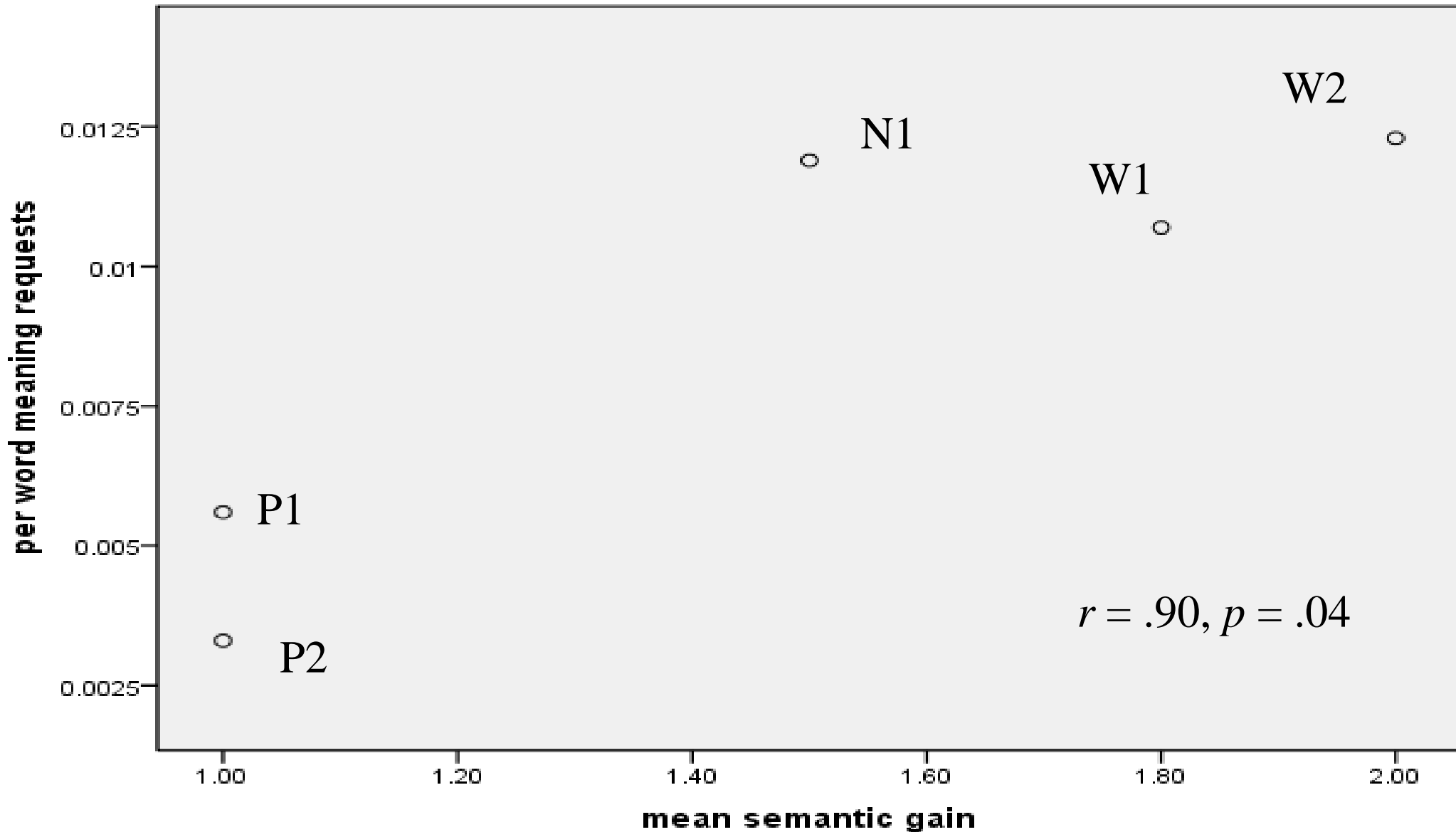


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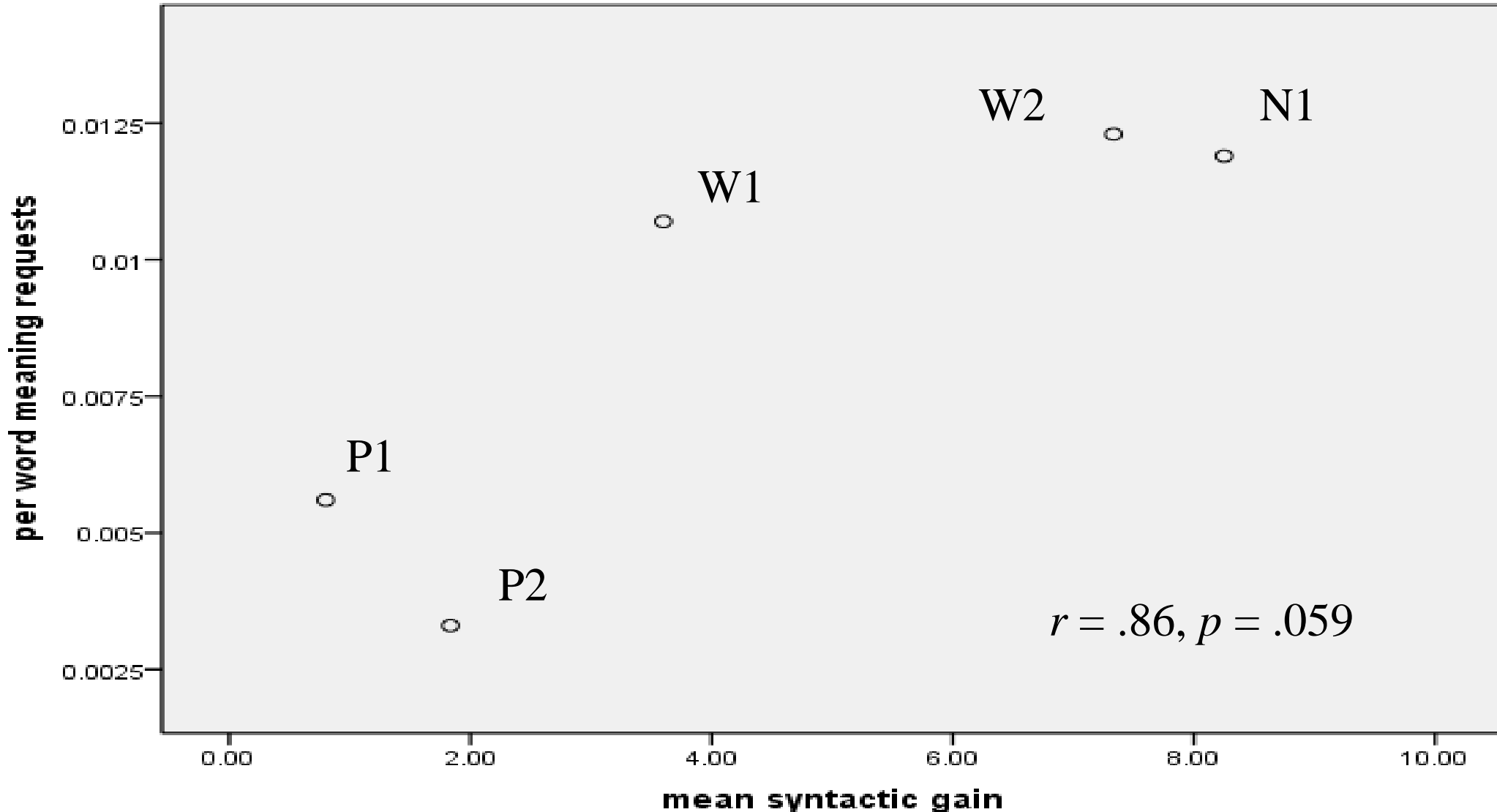
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**Teacher Per Word Meaning Requests & Student Semantic Gains**



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**Teacher Per Word Meaning Requests & Student Syntactic Gains**



# Discussion

- Results are very preliminary
- Teacher talk is characterized by...
- Student performance indicates ongoing issues with reading comprehension assessments, but is heartening with respect to depth of vocabulary measures
- Preliminary evidence suggests that gains may be associated with discourse that is marked by more meaningful requests and provisions per words spoken

# Future Work

- Larger sample size; 30+ classrooms in grades 3-5
- Hierarchical methods
- Control for length of observations: compare requests/word and requests/minute
- Data to explore teachers' intentions when making requests
- Wider range of timing of the observations

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# Discourse Sample - Teacher W1

T: ...the word clever, before I even try to figure this [the answer to the multiple choice question] out, what do I absolutely know is not the answer right away? We are talking about Ben Franklin in the colonial times, before the American Revolution, we are studying in social studies, what word doesn't fit at all?...

St: B

T: Old-fashioned? No I wasn't thinking that, there is one that sticks out to me that doesn't fit, one that really sticks out... which one of those just stands out to you and says, NO WAY JOSE?

*Silence*

St: Long and boring.

T: I don't know, can you find long and boring articles in the newspaper?

St: Yea.

T: Maybe just because I am a teacher but there is one that sticks out and says, "No way I am it," but maybe [Teacher 23] is thinking in a different way than all of you are thinking."