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Variable Nominal Agreement in ENEM-Style Essays

Gamified writing instruction, and a proposal to reread its corpus through variable noun-phrase agreement

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Variation and Idiosyncrasy in Germanic and Romance (LMU)

Roadmap

STUDY 1 • COMPLETED

Gamified writing instruction

- A teaching method for ENEM essays in a public school
- Outcomes at the level of essay performance
- Summarized here

STUDY 2 • PROPOSED

Variable number agreement

- The plural mark inside the noun phrase, element by element (Scherre)
- Exploratory and descriptive, at pilot stage
- Proposed here

Theoretical foundations of the dissertation

Three fields sustain the method.

Gamification

MOTIVATION BY DESIGN

Flow (Csikszentmihalyi), Self-Determination Theory (Deci and Ryan) and the Octalysis model (Chou). It keeps students engaged through a long and difficult task.

Text Linguistics

DESCRIPTION OF TEXTS

Koch's sociocognitive model: cohesion, coherence and writing as work. It supplies the categories used to read and assess the essays.

Dialogue and development

FREIRE AND VYGOTSKY

Dialogic education, and feedback as mediation in the Zone of Proximal Development. It shapes the individual feedback meeting at the center of the cycle.

The next slides detail the first two fields, since they carry into Study 2.

Gamification and the ENEM essay

Gamification

- The design of motivational conditions that keep students engaged in a complex task
- Grounded in Flow (Csikszentmihalyi), Self-Determination Theory (Deci and Ryan) and the Octalysis model (Chou)
- In the dissertation: teams assess real ENEM essays with the ENEM rubric, then compare their diagnosis with the official score
- All essays were read by the researcher as an invitation to dialogue, while asking about anxiety and confidence

The ENEM essay

- Dissertative-argumentative genre, handwritten and timed
- Scored 0 to 1000 across five competencies, including command of the standard norm (Competence 1)
- A high-monitoring writing situation: the student knows the standard norm is being graded
- This monitoring makes any surviving variable mark especially informative for Study 2

Describing texts: Text Linguistics

The dissertation reads student writing through the sociocognitive and interactional model of Koch.

Text as interaction

A text is a project of saying, addressed to a reader with a purpose (Koch and Elias).

Textuality

Cohesion and coherence are observable properties of the text, and they can be described and counted.

Cohesion devices

Connectives, reference chains and agreement keep information linked across the text.

Writing as work

The text develops through drafting and rewriting. Revision is part of the object, and it deserves description.

In Study 1 this lens guided the reading of the five ENEM competencies and the classification of over 400 connectives (Koch; Bagno).

Já no que diz respeito aos **desvios**, estes são determinados pelo que preconiza a **gramática normativa**. Entendemos, assim como aponta Sírio Possenti (1996), que há outros dois tipos de gramática: a **internalizada**, ou seja, aquela que permite a qualquer falante do português reconhecer frases formadas em Língua Portuguesa e também produzir frases que são reconhecíveis por outros falantes; e a **descritiva**, aquela baseada no que os falantes de fato produzem no uso cotidiano da língua.

As for **deviations**, these are determined by what **normative grammar** prescribes. We understand, as Sírio Possenti (1996) points out, that there are two other types of grammar: **internalized** grammar, that is, the one that allows any speaker of Portuguese to recognize sentences formed in the Portuguese language and also to produce sentences that are recognizable to other speakers; and **descriptive** grammar, the one based on what speakers actually produce in everyday use of the language.

A estrutura sintática deve ser observada para a avaliação correta do texto: se ele não possui uma sintaxe estruturada, é avaliado no **nível 0**, por conter **estrutura sintática inexistente**, apresentando ou não desvios; se possui uma **estrutura sintática deficitária com muitos desvios**, o texto deverá ser avaliado no **nível 1**.

The syntactic structure must be observed for the correct assessment of the text: if it does not have a structured syntax, it is assessed at **level 0**, for containing **non-existent syntactic structure**, whether or not it presents deviations; if it has a **deficient syntactic structure with many deviations**, the text must be assessed at **level 1**.

Exemplo 58

1	"Cuidados usar internet"
2	
3	Agora arrumar vai internet dentro problema note-
4	book usa, Mas tem aconteceu pessoas todos em
5	você. O que pessoas tem todos vai para você para
6	você tem problema vezes. Não Ruim internet lugar
7	as até. Aconteceu dentro internet móveis pouco
8	anida como para você, Que culpa a demora
9	arrumar criar pouco tenha paciência nossa.
10	hoje arrumar criar demora começou po-
11	vas anida não.
12	começou dia criar lugar Brasil ar-
13	rumar boa internet.

STUDY 1

Study 1 in brief

Public school in Leme, SP. Two regular 3rd-year classes, 57 students, four rounds of intervention

- 1 Handwritten essay in class
- 2 Individual dialogic feedback - questions about anxiety
- 3 Rewriting

In parallel, gamified peer assessment with the official rubric.

+17.9

points in mean essay score after feedback, 726.7 to 744.6 ($p < 0.001$)

93.9%

essays with all five intervention elements in round 4, up from 77.9%

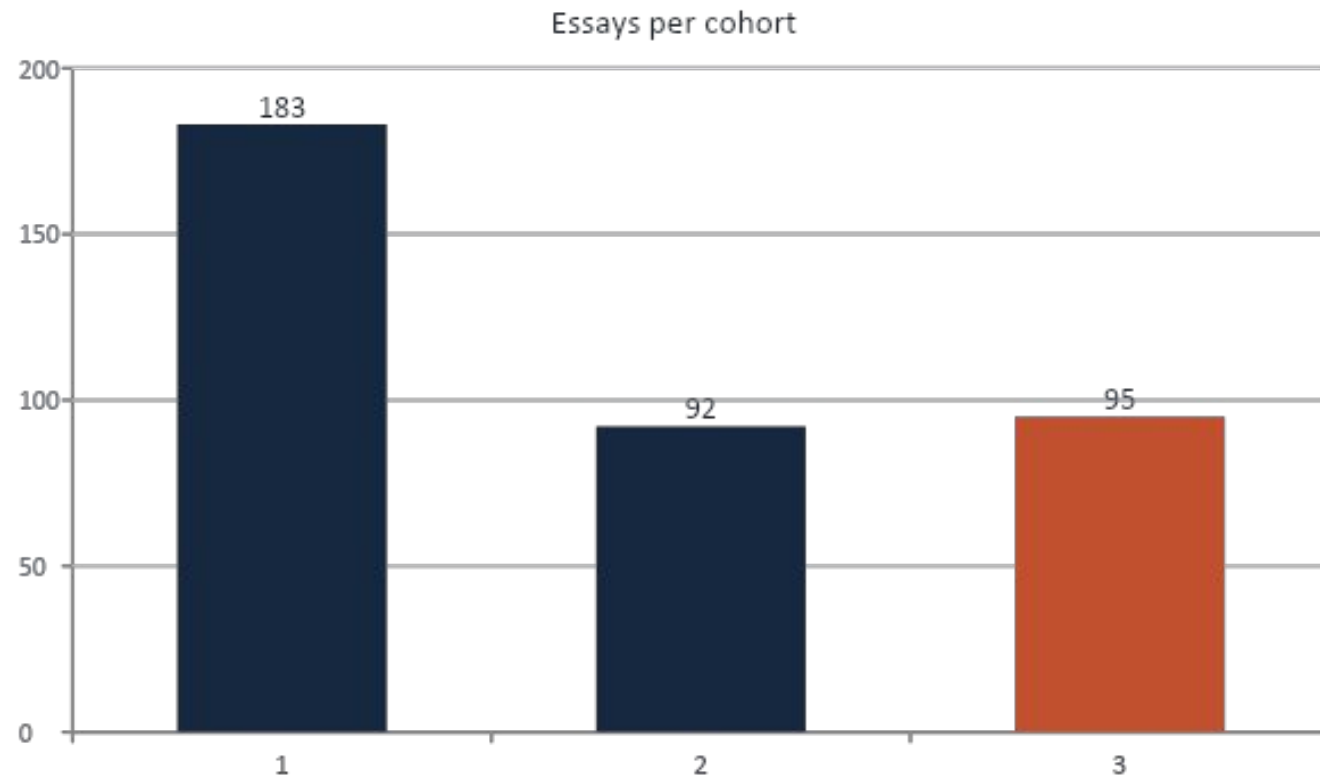
-24.7%

self-reported anxiety, with confidence up 22.0%

664.44

school mean in the ENEM 2024 essay, highest among the municipality's state schools

The corpus



370

essays counted in the full collection

11

classes across three yearly cohorts

2026 is still being collected. Its figures are partial.

The dissertation analyzed a subset: 98 longitudinal essays and 111 in the draft and rewrite pair, from the 2024 classes. The rest is transcribed and unanalyzed.

From the text to the noun phrase

THE TEXT · KOCH

Cohesion across the text

Number information is typically established once and carried forward by the cohesive chain. Repeating the plural mark on every word is one option among others.



THE NOUN PHRASE · SCHERRE

Agreement as a variable rule

In Brazilian Portuguese the plural mark inside the noun phrase varies systematically. Each slot can carry the mark or not.

Det

mark 1

Mod

mark 1

Noun

mark ∅

Combined, the two lenses describe the same written material at different scales. The hypotheses of Study 2 come from this combination.

Structure and collection conditions



Each prompt is a different task, so the set is a collection of draft and revision pairs, and it is not a longitudinal series.

- Handwritten in class, under supervision, one topic per month
- Teacher notes on the printed copy between draft and revision
- Manuscripts were transcribed to digital text with automated assistance, so a sample audit against the originals comes before any coding

STUDY 2

The variable in the corpus

The plural can be marked on every inflectable element, or concentrated on the left edge of the phrase. Both versions occur in the corpus, and both are well formed as phrases.

References: Scherre, Naro, Bortoni-Ricardo.

FROM THE CORPUS

*“...tem que ter toda responsabilidade do mundo para fazer **as coisa** tudo certo.”*

Writer 3, prompt 1, draft

The determiner already carries the number information. The second mark is dispensable.

as coisa

as

mark 1

coisa

mark ∅

Two slots, one mark.

“as pessoa” · “as responsabilidade”

“muitas pessoa” · “essas perspectiva”

other occurrences from the corpus

The unit of analysis is the element

In Scherre's model, counting is done per element. Each inflectable slot receives mark 1 or mark zero, and rates are computed over all slots.

“...a respeito das consequências do uso indivergente das novas tecnologia...”

das

mark 1

novas

mark 1

tecnologia

mark 0

One phrase, three elements, two marks. It adds 3 to the denominator and 1 to the deletion count.

Writer 7, prompt 1. The occurrence persisted in draft and revision.

Element counting keeps every marked slot in the denominator. This is why the rates ahead look low even where the phenomenon is present.

Coding protocol

Envelope

- Noun phrases with two or more inflectable elements
- Plural context set by the phrase or the cotext
- Each element coded 1 or ∅

Factors

- Linear position in the phrase
- Position relative to the head
- Word class
- Phonic salience of the plural
- Writer, prompt, version

Exclusions

Gender agreement

“bolhas informativos”

Verbal agreement

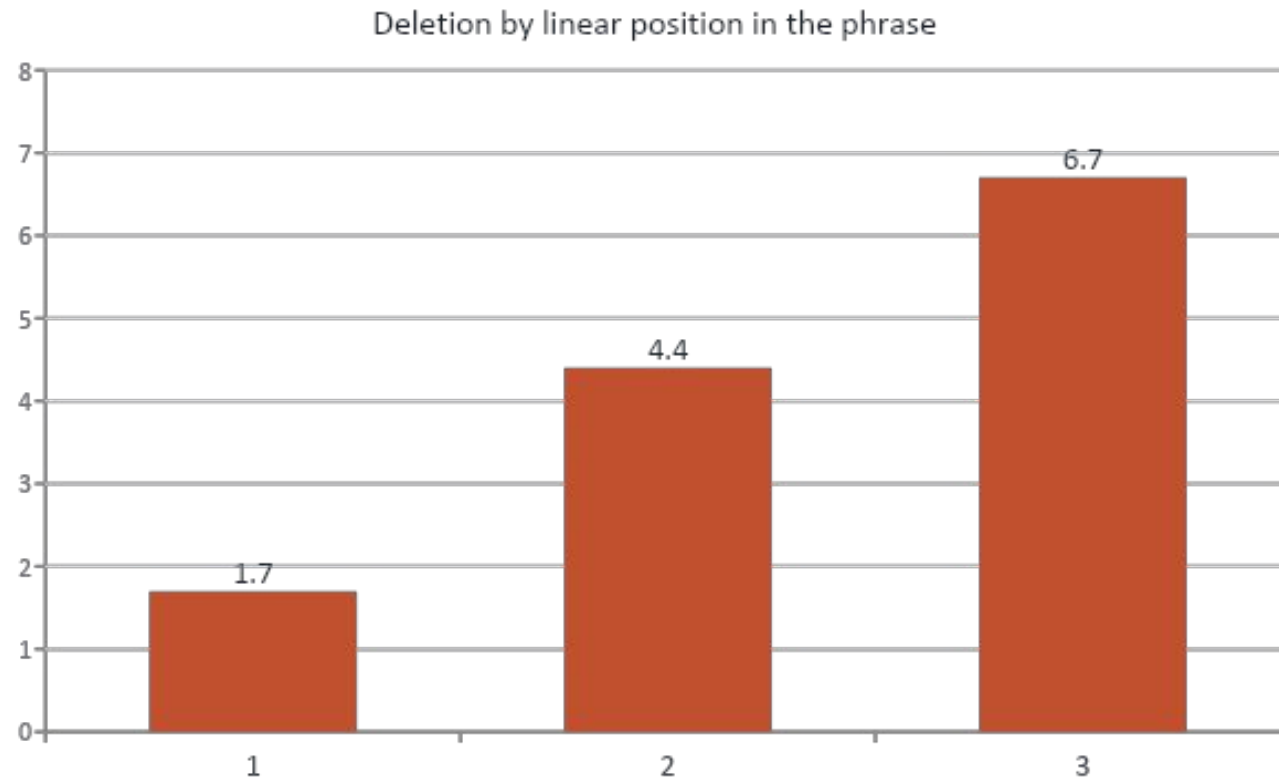
“as redes sociais está...”

Spelling without number effect

“socias”, “decisões”

One spreadsheet row per element. A second coder checks a control sample before consolidation.

Pilot: deletion by position

**2ND POSITION**

“as coisa” · “essas perspectiva”

3RD POSITION

*“das novas tecnologia”
“os desafios enfrentado”*

4TH POSITION

“as questões centrais evidenciada”

Some occurrences run the other way, with the mark absent on the left: “nesse povos”, “o direitos”. They will be coded as data.

The direction matches the variationist prediction. The volume is still too small for inference.

Hypotheses

Built from the two lenses: Koch says the number information travels through the cohesive chain, Scherre says the mark placement is structurally conditioned.

H1 Structural conditioning

Deletion grows from left to right inside the phrase.

Pilot: 1.7% · 4.4% · 6.7%

H2 Internalized non-redundant grammar

Marks that survive high monitoring and revision reflect a variable rule: the plural is already expressed on the left, so the next mark is dispensable.

Evidence: the conditioning in H1, with no appeal to the writer's intention

H3 Phonic salience

Salient plurals ("ões", "ais", "es") resist deletion more than regular "s" plurals.

Pilot: all located deletions fall on regular plurals; testable with volume

H4 Writer as a factor

Deletion concentrates in some writers, while others mark every element already in the draft.

Treated descriptively, with no classification of students

H5: what revision does to the mark

Koch describes writing as work: the text develops through rewriting. The draft and revision pairs show what rewriting does to the mark, through five distinct routes.

Correction	<i>“as responsabilidade” → “as responsabilidades”</i>	the only route indicating rule control
Persistence	<i>“essas perspectiva” → “essas perspectiva”</i>	the occurrence survives revision
Deletion of the passage	<i>“...tendo em vista as pessoa.” → passage removed</i>	the token disappears
Lexical change	<i>“dos indivíduos sociais” → “dos usuário”</i>	the phrase is reorganized
Introduction	<i>“Outro aspecto” → “Outros aspecto”</i>	revision creates a new deletion

Implication: a raw drop in deletion counts between draft and revision cannot be read as an agreement gain.

Work plan

- 1 Transcription audit**

Check a sample of the digital text against the manuscripts.
- 2 Scope**

Code the first drafts of each prompt; revisions go to the H5 analysis.
- 3 Coding batches**

Manual coding per element, one spreadsheet row per token.
- 4 Inter-coder check**

Second coder on a control sample, with an agreement measure.
- 5 Consolidation**

With enough volume, test H1 and H3; describe H4 and H5.

A corpus open to many approaches

Each essay carries a set of variables collected during the intervention. Together with the size of the collection, they support several independent lines of inquiry.

Performance

Global score and five competency scores per essay

Affective

Self-reported anxiety and confidence, writing time

Textual

Classified connectives, intervention-proposal elements, and now the element-level agreement coding

Structural

Writer, class, cohort, prompt, draft and revision versions

370+

essays, growing with each yearly cohort

3

cohorts writing on comparable prompts

Two versions of each text, draft and revision.

Directions for further study

Verbal and gender agreement

Excluded from the current envelope, codable later with the same protocol.

Cohesion across cohorts

The connective repertoire compared over the three yearly cohorts.

Affect and text

Links between anxiety, confidence and textual features, with a dedicated design.

Spelling as evidence on phonology

Non-standard spellings such as “socias” and “decisões” as a window on the sound system.

Revision behavior at large

What rewriting changes beyond the plural mark: lexicon, syntax, spelling.

Argumentation

Intervention proposals and repertoire use compared across prompts.

References

BAGNO, Marcos. Gramática pedagógica do português brasileiro. São Paulo: Parábola Editorial, 2011.

BEAUGRANDE, Robert-Alain de; DRESSLER, Wolfgang Ulrich. Introduction to text linguistics. London: Longman, 1981.

BORTONI-RICARDO, Stella Maris. Educação em língua materna: a sociolinguística na sala de aula. São Paulo: Parábola Editorial, 2004.

BORTONI-RICARDO, Stella Maris. Nós chegemu na escola, e agora? sociolinguística e educação. São Paulo: Parábola Editorial, 2005.

CHOU, Yu-kai. Actionable gamification: beyond points, badges, and leaderboards. Fremont: Octalysis Media, 2015.

CSIKSZENTMIHALYI, Mihaly. Flow: the psychology of optimal experience. New York: Harper & Row, 1990.

DECI, Edward L.; RYAN, Richard M. The "what" and "why" of goal pursuits: human needs and the self-determination of behavior. Psychological Inquiry, v. 11, n. 4, p. 227-268, 2000.

DETERDING, Sebastian; DIXON, Dan; KHALED, Rilla; NACKE, Lennart. From game design elements to gamefulness: defining "gamification". In: INTERNATIONAL ACADEMIC MINDTREK CONFERENCE, 15., 2011, Tampere. Proceedings [...]. New York: ACM, 2011. p. 9-15.

FÁVERO, Leonor Lopes; KOCH, Ingedore Villaça. Linguística textual: introdução. São Paulo: Cortez, 1983.

References

FREIRE, Paulo. Pedagogia da autonomia: saberes necessários à prática educativa. São Paulo: Paz e Terra, 1996.

FREIRE, Paulo. Pedagogia do oprimido. 17. ed. Rio de Janeiro: Paz e Terra, 1987.

HALLIDAY, Michael A. K.; HASAN, Ruqaiya. Cohesion in English. London: Longman, 1976.

INSTITUTO NACIONAL DE ESTUDOS E PESQUISAS EDUCACIONAIS ANÍSIO TEIXEIRA. A redação no Enem 2025: cartilha do participante. Brasília: MEC/Inep, 2025.

INSTITUTO NACIONAL DE ESTUDOS E PESQUISAS EDUCACIONAIS ANÍSIO TEIXEIRA. Caderno de correção da redação: Enem 2019. Brasília: Inep, 2019.

KOCH, Ingedore Villaça. A coesão textual. 17. ed. São Paulo: Contexto, 2002.

KOCH, Ingedore Villaça. Introdução à linguística textual: trajetória e grandes temas. 2. ed. São Paulo: Contexto, 2015.

KOCH, Ingedore Villaça; ELIAS, Vanda Maria. Escrever e argumentar. São Paulo: Contexto, 2017.

KOCH, Ingedore Villaça; TRAVAGLIA, Luiz Carlos. A coerência textual. 14. ed. São Paulo: Contexto, 2002.

References

MASSINI-CAGLIARI, Gladis. Social status and linguistic prejudice in Brazil. In: SETTER, Jane; DOVCHIN, Sender; RAMJATTAN, Vijay A. (org.). The Oxford Handbook of Language & Prejudice. Oxford: Oxford University Press, 2025. p. 396-416.

NARO, Anthony Julius; SCHERRE, Maria Marta Pereira. Origens do português brasileiro. São Paulo: Parábola Editorial, 2007.

O'NEILL, Paul; MASSINI-CAGLIARI, Gladis. Linguistic prejudice and discrimination in Brazilian Portuguese and beyond. Journal of Language and Discrimination, v. 3, n. 1, p. 32-62, 2019.

RUIZ, Eliana. Como se corrige redação na escola. São Paulo: Contexto, 2010.

RYAN, Richard M.; DECI, Edward L. Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. American Psychologist, v. 55, n. 1, p. 68-78, 2000.

SCHERRE, Maria Marta Pereira. Doa-se lindos filhotes de poodle: variação linguística, mídia e preconceito. São Paulo: Parábola Editorial, 2005.

SCHERRE, Maria Marta Pereira. Reanálise da concordância nominal em português. 1988. Tese (Doutorado em Linguística) — Universidade Federal do Rio de Janeiro, Rio de Janeiro, 1988.

SCHERRE, Maria Marta Pereira; NARO, Anthony Julius. Marking in discourse: "birds of a feather". Language Variation and Change, v. 3, n. 1, p. 23-32, 1991.

VYGOTSKY, Lev Semionovitch. A formação social da mente. São Paulo: Martins Fontes, 1991.