# The Embodiment of Thought and Language when Performing a College Essay Revision

# **Abstract**

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### **Theoretical Background**

Over the past 25 years, cognitive psychologists and linguists have argued that the mind, and thought, are expressed by the body and language. In fact, some theoreticians argue that we cannot study language comprehension and production without consideration of the body in concert with language. David McNeill (1992, 2005) at The University of Chicago, was one of the first to show that body movements, particularly gestures, parallel oral verbalizations in narratives. The body a) generates language and b) also represents symbolic forms of expression related to thought and language.

In 1980, Tuen van Dijk, while at the University of Amsterdam, produced the volume *Macrostructures*, a theoretical discussion of how readers comprehend and formulate a macrostructure, a summary statement, what is commonly referred to as "the gist" of a text. In his last chapter, he calls for study of the formation of macrostructures and identifies stages that writers theoretically follow in creating this structure, conceived of as vital to the composing process---and comprehending of text.

## **Purpose and Research Question**

We hypothesized that the body parallels the progression of a writer in the creation of written language and specifically when composing a macrostructure in essay writing. To date, there has been no such systematic study. We asked the following research questions (RQ's):

RQ 1: Would body language reflect thought processes when revising an academic essay?

RQ 2: More specifically, would body language reflect van Dijk's four stages of revision:

- a) organizing of information, planning to set the stage for the creation of a macrostructure,
- b) *deleting* of information that is extraneous to the primary message of the text (the macrostructure),
- c) c) generalizing of information, the grouping together of ideas and the extracting of ideas not necessary and
- d) d) reconstructing ideas to fit the newly formed macrostructure?

RQ 3: How might tutor dialogue, with the tutee, help elicit thought and expression when revising an academic essay?

We believe this research will be valuable for gaining knowledge about tutoring undergraduate students at an HSI in writing centers.

In previous research, Horowitz and Wilburn (2017) studied the creation of a macrostructure by an HSI college student when given the task of revising a midterm essay. That research entailed video recording and use of a digital camera to capture the verbal and visual aspects of rewrites alongside tutor support. The earlier report of this research in 2017 did not address the embodiment of thought and language with progress shown through images of the tutee-student.

This research extends that work by examining the embodiment of thought and language of the college student during the revision process. We ask: How does the body--posture and body moves, gestures by hand, eye-gaze, facial expressions and use of tools such as pen by the writer--contribute to/parallel or stimulate the production of handwriting and loop back into cognition? How should connections between mind, body, and writing be studied in order to better understand the development and revision of writing processes? Of particular interest, is the formation of a macrostructure, which is a difficult act and hard to capture in research.

We have identified photographs of our case subject's body expressions and show distinct physical actions, how and at what stages and junctures they evolve when revising an essay and during tutor-tutee dialogue. This is the first of such research to study the embodiment of the evolution of the writing process in production of a macrostructure.

#### **Materials and Methods**

Elana, an undergraduate student who was enrolled in a Writing Development and Processes course volunteered to participate in our research study that examined the creation of a macrostructure in writing during the revision process. Maria, a graduate student in the Literacy Education program, volunteered to serve as the tutor in this study. She was asked to assist Elana with a revision of Elana's midterm essay and the formulation of a macrostructure.

Maria led a tutoring session with Elana for the revision. Our subject was video recorded during the entire revision process using two devices: a Panasonic DMC-Z540 camera and an iPhone. We extracted 50 images of the subject representing each of van Dijk's four stages of revision (organization, deletion, generalization, reconstruction). We analyzed the images to examine a) the tutee's visual responses to the tutor queries and b) the verbalizing used by the tutee through the revision process. The talk produced by the tutor and tutee was analyzed to determine the processes of tutor-tutee interaction when forming a macrostructure.

Below are samples of utterances in response to tutor queries that reflect the thought processes and the stages of subject reflection as proposed by van Dijk: (organization, deletion, generalization, reconstruction).

# Organization

"To think of the thesis ... it would involve what the actual question was saying, so that I could, like, organize it after, and then like say what examples I thought it was."

#### Deletion

"So again, I like repeated what formal writing was again. I did say class lectures twice..."

#### Generalization

"I think those could be grouped together. I just didn't do it in a good way. I think I just started rambling on ... it's not connected very well."

#### Reconstruction

"So, I think I would put this first, this sentence here...This would maybe be my second sentence here..."

# **Conclusions and Implications**

This is a case study of thought, body movements, and expression of language during the revision of a macrostructure of a college midterm essay at an HSI. It is limited in that it examines only one student's writing processes. Further research is needed to learn about how tutors can more effectively guide revision in systematic ways. We believe van Dijk's theory of revision provides an avenue for further investigation of revision during tutoring.

The study affirms that there is an embodiment of thought and language that is visible and can be captured in photo images. It also reveals that responding to student talk is vital to tutor guidance. The study confirms that interaction between the tutor and tutee can be instrumental in moving the student forward in creating a revision and macrostructure. However, the tutor will need to be sensitized to the body and language signals the student provides during the progression of revision.

We observed body language that conveyed tutee affect and cognition--what we identified as puzzlement, surprise when a new thought emerged, confidence in the progress of the writing, and resolution, and satisfaction with the final product. For future research, a subject might be asked after the revision to orally describe, or write, a metacognitive recollection of what the subject was thinking at particular locations of the photos and writing. This would show dissonance and confirmation of decisions during the writing. This might help tutors understand what a writer experiences during revision and help identify what might be a useful strategy for assistance.

#### References.

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