

Conceptualizing English academic writing via verbal and manual metaphors

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Abstract

As a powerful cognitive tool, metaphor is used in the educational setting to simplify abstract knowledge for learners. Gesture, the material carrier of thought, can represent abstract concepts in a visual mode. Speakers tend to draw on multimodal resources to make use of both verbal and manual metaphors for expository purpose. This article analyzes metaphorical expressions and gestures of four ESL (English as Second Language) composition instructors to probe how both verbal and manual metaphors are used in the educational discourse to concretize abstract concepts of EAP writing (English for Academic Purpose) to second language writers. Gestures are significant in comprehending the metaphorical sense of verbal utterances.

Key Words: metaphors, gestures, English academic writing, expository discourse.

Resumen

La escritura del inglés con fines académicos y su conceptualización a través de metáforas verbales y gestuales

Puesto que la metáfora constituye una poderosa herramienta cognitiva, ésta se emplea en los contextos educativos con el fin de conseguir que para los alumnos el conocimiento abstracto resulte más sencillo. Los gestos, portadores materiales del pensamiento, pueden representar de forma visual conceptos abstractos. Los hablantes muestran cierta tendencia a emplear diversos recursos modales gracias a los cuales pueden utilizar metáforas verbales y metáforas gestuales con fines expositivos. En el presente trabajo se analizan las expresiones metafóricas y el lenguaje gestual empleados por cuatro profesores de expresión de textos escritos en inglés como segunda lengua con el fin de demostrar en qué sentido las metáforas verbales y gestuales que se utilizan en el discurso para la formación de

la expresión escrita en la nueva lengua contribuyen a concretar conceptos abstractos de la escritura con fines académicos por lo que respecta a los individuos comprometidos en dicha tarea. El lenguaje gestual resultará fundamental para la comprensión del sentido metafórico de las expresiones verbales.

Palabras clave: metáforas, gestos, escritura del inglés académico, discurso expositivo.

Introduction

Without sufficient knowledge, ESL (English as a second language) writers might not conceive L2 academic writing according to the English academic writing (EAP) conventions. The question then arises: how do ESL composition instructors relate that knowledge to their students? What features might characterize their expository discourse? This paper reports part of a larger study, in which four ESL composition classes in an American university were observed and videotaped for one semester. The focus of this paper is on how instructors' metaphorical expressions and co-speech gestures in classroom expository discourse represent the way they conceptualize EAP writing.

Cognitive linguists (Grady, 2005; Lakoff & Johnson, 1980; Ungerer & Schmidt, 1996) point out that metaphors are important tools to help people make sense of the unfamiliar, intangible world through mapping it to the more familiar, physical world. Metaphors are frequently used in the educational setting to help students comprehend scientific knowledge (Eubanks, 2001; McCarthey, 1994; Ungerer & Schmidt, 1996; Wee, 2005) and viewed as “a particular type of scaffold, rich with possibilities for the teacher and students” (McCarthey, 1994: 598). Cameron (2003: 3) argues that “language in use, including metaphor, always occurs in a specific context, where it is produced and made sense of, by specific people”. In the educational setting, “thinking, conceptualizing and understanding each other” (Cameron, 2003: 2) are always intertwined, thus creating an ideal setting to study the mediational role of metaphors for expository purpose. Previous studies indicate that JOURNEY, BATTLE, CONTAINER, VOICE, CONVERSATION, BUILDING metaphors, etc. are applied in the composition field for different features of English academic writing (Bowden, 1995; Eubanks, 2001; McCarthey, 1994; McMillen & Hill, 2005; Miller, 1993; Thompson, 2001; Ungerer & Schmidt, 1996), however, none of

the studies addressed the possibility of how manual metaphors could help convey abstract ideas.

Mittelberg (forthcoming: 2) proposes that “figurative thought is at the heart of meaning-making processes in both speech and manual modalities”. Gestures, as the direct representation of human mental activity, provide insight into how abstract concepts are understood through the manual and visual mode (McNeill, 1992, 2000 & 2005; Gullberg, 1998; Kendon, 2000, McCafferty, 2002; Goldin-Meadow, 2003; Enfield, 2005; Nunez & Sweetser, 2006). Due to “its spontaneous and ephemeral nature, co-speech gesture allows insights into the dynamics of figurative thought” (Mittelbert & Waugh, forthcoming: 6-7). As a possible pedagogical tool, gestures are employed by instructors to make sense of abstract, unfamiliar knowledge (Corts & Pollio, 1999; Goldin-Meadow, 1999; Church et al., 2004; Lazaraton, 2004). Gestures are pedagogical attempts at “making fairly abstract (...) concepts more understandable for the listener/viewer, by turning them into the visual and the embodied” (Mittelberg & Waugh, forthcoming: 4).

This paper analyzes verbal and manual metaphors by composition instructors in EAP writing classes to study the function of metaphors in expository discourse. Since metaphor theory is relatively well known, attention is given to gestural studies in the literature review section.

Literature Review: Gesture

Gesture, the manual movement, is closely related to language (Kendon, 2000). Gesture and speech are two sides of the same coin: gestures convey meaning globally, relying on visual and mimetic imagery; while speech conveys meaning discretely, relying on codified words and grammatical devices (Goldin-Meadow, 2003). Kendon (1992), McNeill (2005) and Lantolf and Thorne (2006) agree that, as a material carrier of thinking, gestures could provide insight into a speaker’s mind and make the mental representation visible and analyzable. Depending on the co-expressivity of verbal and gestural information, gestures could fall under the “iconicity, metaphoricity, deixis, temporal highlighting (...) or some other (...) terms” (McNeill, 2005: 41). Of particular significance to conceptual representation is gesture of the metaphoricity dimension, which visually displays abstract notions in speech. For example, chronology is visually represented along the spatial line. For most speakers/languages, a forward leap of the hand

represents future events; a pointing-behind gesture symbolizes past events (Kendon, 1992). However, Nunez and Sweetser (2006) find that Aymara people view the past as something happened ahead and the future as something behind. This finding is supported both linguistically and gesturally. The ethnic Aymara people thumb or wave over their shoulders to indicate space behind themselves when talking about the future, and they sweep forward with their hands and arms while talking about the past events. This radical difference could be explained in that Aymara culture privileges a distinction between seen/unseen and known/unknown. Linguistic markers are used to differentiate what is seen and can be proved from what is heard and cannot be proved. So metaphorically and gesturally, they will place the known past (proved and seen) in the front and put the unknown and unknowable future (not proved, not seen) behind their back.

In the classroom setting, Mittelberg (forthcoming), and Mittelberg and Waugh (forthcoming) investigated gestures of four linguists when they explained a variety of grammatical issues in class. Their gestures visually represented conceptual metaphors embodied in linguistic theories. These linguists frequently used CONTAINER/OBJECT gestures for “words, constituents, sentences, or entire discourses respectively” to manifest the conceptual image schemas that “ideas are objects” or “categories are containers” (Mittelberg, forthcoming: 10). Their hands moved vertically downward to imitate the tree diagram when they explained syntactic structure, dependent clause, and embedded clause (Mittelberg, forthcoming: 15). Such a gesture implied that the most powerful governing elements are situated at the top of the branching structures and the dominated subordinated elements at lower levels, which correspond to the metaphors CONTROL IS UP and BEING SUBJECT TO CONTROL IS DOWN. Gestures are significant in that they “portray a linguistic unit as an imaginary object, container, line, or as a location in space, even if the concurrent speech was not per se metaphoric, but rather featured technical terms such as noun, main verb, sentence” (Mittelberg, forthcoming: 23). Gestures thus allow “grammatical categories as well as operations get translated into the concrete manual modality by evoking correspondences between the intangible and the embodied” (Mittelberg, forthcoming: 23).

Studies conducted in the classroom setting point out that gestures are widely used by teachers. While explaining unplanned vocabulary to her ESL students, the ESL teacher in Lazaraton’s (2004) study gestured more to depict semantic meanings of those words to enhance students’

comprehension. Gestures are suggested to be potentially significant as a type of comprehension input provided to L2 learners in the instructional setting. Corts and Pollio (1999) studied the relationship between spontaneous use of figurative language and gestures in three college lectures by an experienced psychology professor. They found that the confluence of figurative language and gestures occurred in bursts when the lecture dealt with abstract topics beyond students' ordinary experience or presented a different understanding of a known topic. The metaphor was remarkably evident in both the hands and the body as well as in the language of the speaker. They suggested that gestures and metaphors presented and emphasized novel perspectives on significant lecture content. Students in their study also reported a better understanding of lecture information when such information was presented metaphorically rather than literally.

The Study

This study probes patterns of four instructors' metaphorical expressions and gestures in composition classes to argue that gestures and concurrent speech should be investigated in totality to fully understand how abstract EAP writing conventions are metaphorically conveyed. I videotaped the four classes to collect the instructors' verbal explanations and co-speech gestures while explaining EAP writing conventions to the students. There were four participating instructors: TA, TB, TC, and TD. All instructors are native speakers of English, except TA; all are female, except TB. The participating instructors are all experienced composition instructors: TB had taught composition classes for 2.5 years and TA and TC for 3.5 years at the time of data collection. TD has taught composition for more than 10 years at the same university. TA, TB and TC are all graduate students of applied linguistics. TD is a teaching advisor who often trains incoming composition instructors. TA, TB, and TC received the same training when they first started teaching composition at that university to ensure they covered the same basic contents of EAP writing. Thus, the four instructors could be said to share the same discourse community in terms of disciplinary knowledge. It is rather apparent that this shared discourse community contributes to the similar focus of EAP writing in their instruction.

The video camera was connected with a shotgun microphone and set on a tripod in the back of the classroom. The instructors often moved around in

the classroom, wrote on or pointed to the blackboards, and interacted with the students by walking towards them. The instructors' speech was mostly monologic since they focused on conveying concepts to the students, although students were occasionally invited to answer questions or to air their opinions. In addition to teaching the entire class, these instructors held group conferences with students, which normally took place in a quiet, soundproof room, with a round table stationed in the middle. The instructors and the students were sitting around the table. To videotape conferences, I set up the video camera before they started to talk, then left the conference room. When the conference was over, I returned to the conference room to turn off the video equipment. Data transcription focused on instructors' verbal and manual metaphorical expressions regarding conventions of EAP writing. All the verbal utterances were transcribed using ordinary orthography. For gestural data, only those gestures that fell under the metaphoricity dimension regarding the overall structure and conventions of writing were analyzed. The trajectory, shape and location of gestures are described in detail for every gesture. Information about the gestural transcription convention can be found in the Appendix.

Data Analysis

112 video-clips containing relevant gestures were extracted from the data. Overall, the instructors used metaphorical expressions to explain what is expected in English Composition and their gestures enhanced such ideas. In many cases, the verbal expressions clearly would not be understood metaphorically without the accompanied gestures. Gestures and verbal expressions should always be analyzed in totality for full comprehension. Altogether, twelve patterns were generalized from the instructors' data: LINEAR (38), HIERARCHY (33), TIE (26), BUILDING (24), PIE STRUCTURE (22), CONTAINER (20), JOURNEY (20), EXPLORATION (11), SCALE (9), WEAVING (7), PROJECTOR (3) and ONGOING PROCESS (2). The number of instances for each pattern is indicated in the parentheses. Each pattern focuses on a different facet of EAP writing, such as the linear progression of ideas and the hierarchical and encompassing function of the thesis statement. However, it should be noted that the division into the twelve patterns does not exclude the possibility that the verbal utterances and the gestures can imply more than one metaphor at

the same time. For example, the linearity pattern is often associated with the JOURNEY metaphor, and the hierarchical function of the thesis statement is sometimes implied in the BUILDING metaphor. This paper selectively presents some patterns to illustrate the importance of analyzing gestures and verbal utterances in totality to fully comprehend the metaphors of EAP writing. In each example, the underlined words of the verbal utterances indicate parts of the speech synchronizing with gesture, and gestures are described in square brackets.

LINEARITY metaphor

All instructors emphasized that a good piece of writing in English is linearly structured. Gesturally, the instructors moved their hands from a higher place to a lower place, or they moved their hands away from their body, to indicate the flow of information in the essay. In Example 1, TA commented upon one student's paper on the structure.

Example 1:

TA: "He is pretty organized, he has three, eh, three strategies laid out and eh, support through good evidence." [moving her RH downward, pausing three times on the path; same downward gesture]



Figure 1

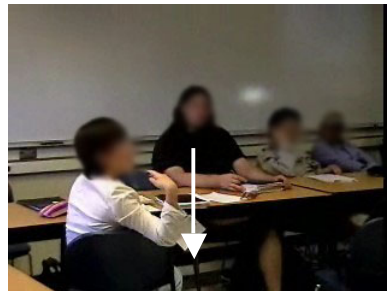


Figure 2

In figure 1, TA's right hand was positioned higher than its position in figure 2. This occurred as TA moved her hand downward from a higher place to a lower place to delineate the movement of ideas in that student's paper. Verbally she emphasized the inherent relationship between the ideas

presented in the paper. TD revealed the same pattern of downward movement when she explained how to structure multiple ideas in example 2.

Example 2:

TD: "... so anyway, when you can, try to separate things [LP facing the students, moving downward and pausing on the path] so that you can get five paragraphs on just one thing." [LH forming a half-open container shape, LH moving downward, pausing on the path]



Figure 3



Figure 4

Here, TD produced a similar downward-movement gesture to indicate the progression of ideas in the essay, as demonstrated by the different positions of her hands in figures 3 and 4. Linguistically, TD emphasized the need to have multiple paragraphs/ideas; gesturally, she highlighted that these related paragraphs help the essay move forward linearly. One commonality of these two instructors' gestures is the sequential linearity movement of ideas, as they talked about what the students should do for a good piece of writing. However, one might argue that these gestures could be taken to literally indicate the spatial location of different paragraphs. Examples of how instructors gestured while talking about problematic essays will show a contrast to help us see why those two gestures reflect linearity metaphor.

Locales of gestures need to be examined first for that purpose. TA and TD produced the downward linear gestures at the center front of their bodies. Since the center front is the main stage of gestural production, we could interpret that ideas manifested in this area bear certain importance. This continuity was broken in example 3 when TC pointed out why certain ideas should not be presented in the same piece of writing when she moved her hands sideways, as seen in figure 5. Her gestures were not produced in the

center stage, but to the side of her body. The non-linear trajectory of gestures proves that an essay without linear development is problematic.

Example 3:

TC: “You must back up everything that you say in this paper, must be given by the context, [opening BH widely around the body as if wrapping something inside the boundary] which is given by your secondary text. [...] Students thought that secondary text is I can make my own assertion [...]” [turning body to left, hands opening wide in that direction in an emphatic way, head still facing the original direction]

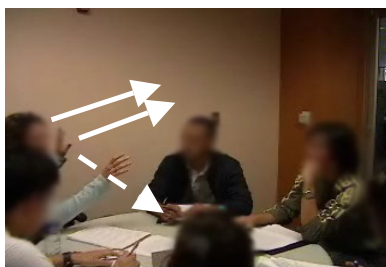


Figure 5

Before TC turned her body and hands sideways, she was facing straight ahead and all her previous gestures of how the students should use grounded claims in their writing were produced in the center stage in the direction indicated by the dotted line in figure 5. When TC explained why it was wrong that some students, instead of grounding their claims from the secondary texts, proceeded with their own ideas, she turned her body and hands sideways, shown by the two solid lines in figure 5. Her head remained unmoved. This formed a contrast to the previous linear-movement gestures and clearly indicated that those ungrounded claims were on the wrong track as they violated the linear-movement pattern. In example 4, the same pattern occurred when TC analyzed why one student’s paper was problematic. She said,

Example 4:

TC: “You kind of talking about American beauty, happiness, [move BH and body to the left] then you talk about your secondary text. [move BH and body to the right]

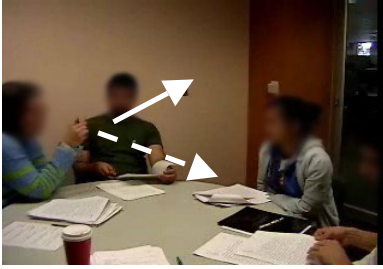


Figure 6

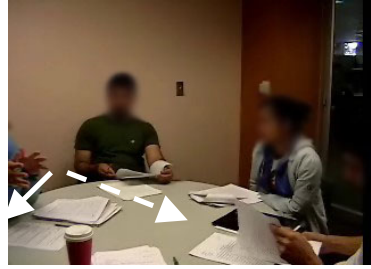


Figure 7

Here TC did not produce the linearity gesture. She first moved her hands to the left side of her body in figure 6 to indicate part of the essay was moving along one direction, then she moved her hands to the right side of her body in figure 7 to indicate part of the essay was moving along the opposite direction. By contrasting two lines in opposite directions, TC clearly indicated that the essay violated the linearity progression of EAP writing.

These examples illustrate that sideways gestures are associated with the fact that they sidetrack the essay from being linear. In all, these instructors' gestures share the same concept that according to the EAP writing convention, an EAP essay should progress linearly.

HIERARCHY metaphor

Another highlighted pattern is the hierarchical function of the thesis statement. As a writer strategy, a good thesis statement will help writers decide and organize supporting points. As a reader strategy, a good thesis statement should help readers predict the forthcoming ideas in the essay. Learning how to write a good, effective thesis statement is one of the priorities of students in EAP writing classes. In example 5, TD emphasized its importance.

Example 5:

TD: “the thesis needs to talk about both these things. So please make sure your thesis is about the whole thing.” [LH drawing a curve above her head]



Figure 8

The locale of this gesture in figure 8 is significant. TD put her left hand above her head and drew a curve line. The shape of this gesture reminds us of a roof, or a canvas that could cover the materials beneath, thus indicating that the thesis statement is not merely a sentence but an encompassing coverage of the forthcoming ideas. The locale indicates that the thesis is higher in the hierarchical structure of the essay for its controlling function. It fits the idea that CONTROL IS UP, CONTROL IS HIGHER. The above gesture clearly reveals the hierarchical, comprehensive and encompassing aspect that the thesis statement is expected to fulfill.

In examples 1-5, the verbal expressions are not metaphoric per se. Instead, they are technical explanations such as “organized (...) three strategies laid out”, “get five paragraphs on just one thing”, “make assertion”, “thesis is about the whole thing”. Without the concurrent gesture, one might not get the metaphorical meaning of linearity, violation of linearity, and hierarchy easily from the speech. Through the imagistic representation, gestures spontaneously reflect the inner conceptualization of how these instructors internalize metaphorical sense of EAP writing even when they do not plan to use metaphors to explain EAP writing. Many other instances in this study bear the same feature that it is the gestures, not the speech, that reflect the metaphorical meaning. This proves the significance of gestures in relating metaphorical concepts.

However, gestures and metaphorical expressions do not always occur simultaneously. Example 6 is an instance of metaphorical expression without corresponding gestures. Although no gesture was produced, the word “forecast” clearly featured the prediction function of the thesis statement.

Example 6:

TD: “Provide a roadmap by stating your thesis and forecasting important sections. Okay, forecast is how you prove the thesis. So somewhere near your thesis, you need a statement that gives your proof. You use the story to prove your point and you can put some kind of forecast, just like the weather forecast [...] Forecast is the same thing. You are gonna forecast the main point of your essay”.

This FORECAST metaphor helps students relate the familiar phenomenon of weather prediction to the relatively new and abstract concept of a thesis statement to establish the connection that thesis statement serves as a forecast to the rest of the essay.

The HIERARCHY metaphor sometimes interweaves with the BUILDING metaphor, though one can only infer the sense of “building” from the overarching function of a thesis being a roof. TC’s utterance “whole paper is framed inside that [thesis statement]” will lead to the implication of an essay as a building. The thesis serves as the mainframe that controls the rest of the building/the essay. So, “your point and particularly the way you illustrate your point need to be framed inside that [thesis] the whole time”. This utterance from TC focused on the controlling and framing function of the thesis statement about what supporting ideas can be presented within its framework. Once the “frame” is set, the rough shape of the building is set. Similarly, when the writer sets up the thesis, he/she will have a clear idea about what to discuss in the essay.

BUILDING metaphor

The BUILDING metaphor was used to emphasize different aspects of the essay. As previously explained, the building metaphor was sometimes implied with other metaphors. In example 7, TC’s gestures and speech co-establish a relationship between the thesis and the infrastructure of a building.

Example 7:

TC: “You need to frame your point, you need to, whatever you are gonna say, you need to frame inside of this idea here”. [BH facing each other, moving up and down above the space designated as the thesis statement; same gesture]

TC's gesture suggests that the thesis is the infrastructure of the building and all relevant, supporting ideas should fit into this structure. TC also moved her hands parallel to each other: she did not move her hands in an extended manner, nor did she narrow down the container shape of her hands. The unchanged shape of her hand gestures marked a boundary and conveyed the idea that the supporting ideas should follow the framework set up in the thesis: no new ideas unpredicted in the thesis should be presented in the body paragraphs; nor should any ideas that are covered in the thesis be left unaddressed in the essay.

In example 8, TC discussed how the thesis statement served as the foundation of the building from another perspective.

Example 8:

TC: “you have to make sure that every claim you made is grounded in this idea, [RH holding a pencil, circling around the area that was assigned as the thesis statement from earlier utterances] and you have to make every point use the same language as this idea.” [moving RH back and forth as if between the thesis and points]



Figure 9

The circular gesture in figure 9 clearly conveys that the thesis statement is more than just a sentence. It enhanced the foundational function of the thesis statement (in the BUILDING metaphor) represented in the verbal expression “grounded in this idea”. Here, the correspondence between the thesis statement and the foundation is different from the correspondence between the thesis statement and the roof. TD expressed similar ideas of essay development in example 9.

Example 9

TD: "... it seems that he has got several strong ideas that he might build on, ...". [putting LH on top of the paper and raising the hand]

The thesis statement could be interpreted differently as the roof or the foundation, depending on how one looks at it. In example 9, TD seemed to use the building metaphor in the sense of the foundation when she raised her hand upward in figure 10 to emphasize how supporting ideas were built upon the thesis statement. This forms a contrast to example 5 of viewing thesis statement as a roof when she positioned her hand above her head to indicate the thesis statement. This difference actually reflects two approaches of writing. Some tend to write the thesis statement after they finish all supporting ideas. In this way, it serves as a sentence to wrap up the main ideas, hence the roof. Some tend to have a clear vision of what they are going to write in the essay, and they start from the central claim to the detailed argument, hence the foundation. The different metaphorical meaning of viewing thesis as "roof of the building" or "foundation of the building" is clearly represented in the instructors' gestures and speech.



Figure 10

One thing we should pay attention to is how gestural production is materialized based upon the presence of available materials in the context. TD's gesture in example 9 will illustrate this point. When TD raised her hand, the size of her gesture was based on the size of the paper she was holding. Even when TD verbally articulated the word "building", her hand did not specify the size of a real building but a virtual building based on the size of the paper. In figure 11, example 11, once again we can see that TB's gesture of a container was based on the size of the paperboard, not the size of a piece of a paper or the size of a whiteboard, since paperboard was what was available to him at that moment.

CONTAINER metaphor

The CONTAINER metaphor implies that an essay is a container that needs to be filled with ideas. A good essay is one with supporting facts, just like a container filled with sufficient materials. An essay only giving opinion with no evidence is an empty container. Though the instructors never explicitly used the word “container”, the CONTAINER metaphor was clearly embedded in their speech and gestures. In example 10, TD suggested that the student writer should discuss one of the ideas he proposed in a separate paragraph.

Example 10:

TD: “[...] that is such an important nice factor, probably deserves its own paragraph [...] [BHC] he has got several really crucial factors right here, (...) it is shouting for its own paragraph”.

Here TD posed both hands in a container shape when she suggested that one point should be taken out from the current paragraph to be fully developed in a new paragraph. Her hands clearly indicated the container sense. We will miss this point if we only analyze her verbal utterances. Again the gesture, not the speech, conveyed the metaphorical meaning of a paragraph as a container. This can be seen in example 11 as well.

Example 11:

TB “[...] so I imagine, what the next paragraph talk about [...]” [moving BH to form a large container shape following the boundaries of earlier written paragraphs in the paperboard]

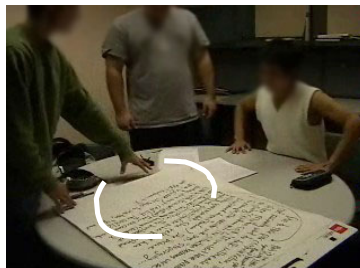


Figure 11

The container meaning would be not perceived if TB only moved his hand linearly to indicate the progression of paragraphs. TB moved both hands in figure 11 to form a container shape to define the boundary of the paragraph. This gesture clearly implies certain contents are needed to fill the container. A mere examination of TB's speech will not help one comprehend the CONTAINER metaphor.

While commenting upon one student's revised paper, TA's words and gestures in example 12 co-expressed the idea of essay being a container.

Example 12:

TA: "You are trying to put too much information in that loooong, uh, passage. [LH moving up and down at "too much"; raising LH above her head then moving down at "long" with the lengthened vowel "o"; thumb and index finger of LH forming an open-container] After you cut it down, I feel it is more focused and even more clear". [narrowing the open-container shape gesture]



Figure 12



Figure 13

TA's thumb and index finger of her left hand were formed in an open container shape (in figure 12), then she narrowed the size of this container (in figure 13) when she talked about how the writer "cut down" the length of the paragraph in the revised version. The size of the container decides how much materials should be put inside. Similarly when one views paragraph as a container, the length of the paragraph will also decide how much information is proper.

Conclusion

Cameron (2005: 4) argues that any specific use of language is “embedded in nested series of contextual frames” radiating from the physical, social, interactional, linguistic to the conceptual context. In the educational institution, conceptual context relates to “ways of thinking and knowing” (Cameron, 2005: 4). In this context, “with its asymmetric power relations between teacher and pupils” (Cameron, 2005: 5), and the institutional role of teaching, the teacher discourse or classroom expository discourse aims at helping students establish new knowledge and concepts. Studies on metaphors used in the pedagogical setting (Ungerer & Schmidt, 1996; Cortazzi & Jin, 1999; Wee, 2005) indicate that metaphors are recognized as useful pedagogical tools to help students bridge the known and the unknown. When we “explore metaphor in its most ordinary guises” (Cameron, 2003: 7), we find that teachers do employ metaphors for abstract concepts (Corts & Pollio, 1999; Mittelberg, forthcoming). When we view teacher discourse or classroom expository discourse as a special language, which aims at helping the less capable to comprehend and to conceptualize new knowledge, we could appreciate the impact of metaphors in this discourse. Grounded in real authentic data for composition instructors’ verbal and manual metaphorical expressions, this study examines how metaphors function in classroom expository discourse to clarify abstract concepts for learners. The analysis of a few selected patterns points out that verbal and manual metaphors are indeed used as a useful mediational tool. However, unlike Corts and Pollio (1999) study, the current study indicates that metaphors seem to be employed for both specific and abstract topics. If we ignore the co-speech gesture, the metaphorical sense will not be detected from the ordinary daily language when the instructors commented specifically on why a paper is good or needs improvement.

In line with Corts and Pollio (1999) and Mittelberg (forthcoming), this study points out that teachers resort to spontaneous multimodal resources for a better effect. Unlike speech, gestures are usually not pre-planned but produced at the moment of speaking. The spontaneity of gestural production provides a better means to examine speakers’ inner conceptualization, since gestures concretize abstract ideas in a visual mode. Through a combined analysis of gestures and speech, this paper emphasizes the importance of gestures and the need to analyze gestures and speech in totality to help students understand the metaphorical idea of certain conventions of EAP writing. However, studies on metaphors scarcely take

gestures into consideration. As indicated in this paper, leaving gestures outside the picture will prevent us from fully understanding the metaphors when speech itself is not metaphorical per se. Since classroom expository discourse tends to make more use of metaphors, the incorporation of gestures into the picture seems to be even more essential to fully appreciate the implied metaphors.

Though gestures are not pre-planned, Lazaraton (2004) finds that teachers tend to use gestures more often when they are unprepared for certain topics in class. In this way, gestures help them organize their own thought and their own linguistic production. Though gestural usage is closely related to language use, especially when the purpose of discourse is to explain knowledge and concept, it will be contrived if teachers design certain gestures to enhance their speech. On the other hand, speech can be pre-designed. As a matter of fact, the majority of teachers do prepare what to teach and how to teach prior to the actual teaching. Pedagogically, if teachers could think of ways to incorporate more metaphorical expressions when they explain abstract concepts, this could help students better conceptualize new knowledge. I want to end the paper with one of my students' verbal evaluation when I taught EAP writing class as a graduate TA several years ago. The student wrote that the UMBRELLA metaphor that I had discussed frequently in class helped him get the "uh-ha" moment of how to structure his essay writing for his main argument and supporting points for academic purpose.

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Appendix: Data transcription conventions

SPEECH:

[...]=ellipsis

GESTURE:

description of gestures, trajectory, shape, location is indicated []

BH=both hands;

BHC=both hands open, facing each other, forming a half-open container shape;

LH=left hand;

LP=left palm;

RH=right hand.