

Post-print of publication in V. Bonsignori, G. Cappelli, E. Mattiello (eds.) *Worlds of Words: Complexity, creativity and conventionality in English language, literature and culture*. Vol. I – Language. (pp. 47-52), Pisa: Pisa University Press.

## Harnessing Multimodal Literacy for Knowledge Dissemination in ESP Settings<sup>1</sup>

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### *Abstract*

Ongoing progress in digital technology continues to have a growing impact in all areas of life and the field of language teaching is no exception. With particular reference to ESP, it is now crucially important to incorporate multimodal digital resources in the classroom that can be leveraged to help learners construct knowledge in specialized discourse domains and exploit the interplay of verbal and non-verbal meanings for a deeper understanding. Towards this goal, researchers at the University of Pisa have compiled a multimodal corpus of video clips representing disciplinary areas of particular interest to ESP students (i.e., business/economics, political science, law, medicine, tourism), as well as a variety of web-mediated genres that can be adapted for classroom use, including OpenCourseWare lectures, TED Talks, and digitally available films, television series, documentaries, interviews, and docu-tours. This contribution provides an overview of the methodological issues involved in designing, collecting, and analysing a multimodal corpus to be exploited by linguists and practitioners working in ESP in higher education.

*Keywords:* specialized discourse; ESP; multimodal literacy; multimodal corpora; multimodal discourse analysis.

### *1. Introduction*

Over the last two decades, rapid developments in digital technology have had an enormous impact on how we communicate and interact with others in all aspects of life. In the field of education, these changing social practices have led to an enhanced awareness of the im-

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<sup>1</sup> Research financed by the Italian Ministry for the University (PRIN 2015 no.2015TJ8ZAS)

portant contribution of semiotic modes beyond verbal language in materials that students encounter during learning activities. This recognition can be conceptualised as *multiliteracies*, a term coined by the New London Group (1996), a group of scholars (including Norman Fairclough, James Paul Gee, and Gunther Kress) who proposed a new agenda for education that surpasses the traditional interpretation of literacy as the ability to read and write. They argued that teaching must respond to society's changing forms of communication by utilizing new technologies characterised by multiple semiotic resources. Since then, the concept of multiliteracies has been widely and successfully applied in both elementary and in secondary educational settings (Jewitt and Kress 2003).

In higher education, there has been a similar even if somewhat belated trend. To this regard, O'Halloran, Tan, and Smith (2016: 256) noted that "Changes in higher education, especially in the use of digital technology, have revolutionised traditional academic practices, with an increasing recognition of the need for students and teachers to develop multimodal competencies across a range of communicative platforms". To become multiliterate, learners must "develop proficiency in meaning-making in linguistic, visual, audio, gestural, spatial, and multimodal designs, with multimodal being a combination of the other modes" (Cloonan 2008: 159). Walsh (2010) further defined this specific competence as *multimodal literacy*, i.e., the ability to construct meanings through "reading, viewing, understanding, responding to and producing and interacting with multimedia and digital texts" (p. 213). In the language classroom, multimodal literacy translates into helping learners become aware of and exploit visual, aural, gestural, and spatial cues to understand and produce texts in the target language more effectively (Crawford Camiciottoli and Campoy-Cubillo 2018). With specific reference to ESP contexts, the multimodal approach can provide learners with a wider set of semiotic resources beyond verbal language to cope with the linguistic, discursive, and pragmatic challenges of domain-specific language.

An ongoing challenge for both linguists and practitioners working in area of ESP is to find ways to leverage the ever-growing influence of digital platforms for learning specialised language. Indeed, if we hope to keep pace with and effectively engage today's sophisticated and digital-savvy learners, it is imperative to incorporate into the ESP curriculum the multimodal and multimedial resources that they so expertly

use in their daily lives, both inside and outside the classroom (Street, Pahl, Rowsell 2011). Thus, it becomes crucially important to utilise digital audiovisual resources that accurately capture authentic and contextualised communication relevant for ESP settings. Such resources can assist learners in constructing knowledge in specialized discourse domains through a deeper understanding of the “discursive interplay” between the verbal and the non-verbal (Salvi in this volume).

In the next section, I describe the contribution of the Pisa research unit within the interuniversity project entitled *Knowledge dissemination across media in English: continuity and change in discourse strategies, ideologies, and epistemologies* towards this goal.

## *2. The ESP Video Clip Corpus: Methodological Issues*

The Pisa research unit aims to explore the interface of knowledge dissemination, multimodal literacy, and ESP. To accomplish this objective, a corpus of video clips has been compiled to represent disciplinary knowledge of particular interest to ESP students, i.e., business/economics, political science, law, medicine, and tourism. It includes a variety of genres, such as web-mediated versions of more traditional instructional formats (e.g., OpenCourseWare lectures, TED Talks), but also digitally available films, television series, documentaries, interviews, and docu-tours containing specialised language that can be leveraged for knowledge dissemination in highly asymmetrical classroom interactions. From this perspective, the research of the Pisa unit is positioned at the low end of the ‘expertise continuum’, thus complementing the work of the other research units in the interuniversity project focusing on various types of popularised discourse across a range of settings encompassing both expert-to-non-expert and expert-to-expert communication (cf. Bondi, Garzone, and Gotti in this volume). The corpus will be annotated and analysed with special attention to challenging verbal elements (e.g., specialised lexis, as well as key phraseological, rhetorical, and cultural features), but also non-verbal features (e.g., prosody, gestures, proxemics) that contribute significantly to meaning.

On a methodological level, the compilation of a corpus of audiovisual materials presents considerable differences with respect to more traditional corpora that are limited to the textual dimension. As Adolphs (2013, p. 1) points out, there is a need to analyse natural speech as an “embodied phenomenon” that includes other semiotic resources such as prosody, ges-

tures, facial expression, and body posture/positioning, which often emerge simultaneously with verbiage when we observe people engaging in oral communication. Thus, collecting such multimodal data presents three key challenges, referred to by Adolphs (2013, p. 2) as the “three R’s”:

- Recording: the act of preserving speech for future analysis, which entails not only the technical aspects linked to the recording itself, but also important issues related to participants, such as ethical concerns, informed consent, and copyright when using material recorded by third parties;
- Representing: how to align and display simultaneous audio, visual, and verbal codes;
- Replaying: how to store and search multimodal data for analytical purposes, also involving the insertion of metadata, coding or annotation schemes.

From an analytical perspective, multimodal corpora present some unique challenges with respect to corpora of exclusively written and/or spoken data. It is necessary to adopt a layered or tiered approach in order to represent the simultaneous interaction of multimodal elements, such as video images, speech representation, prosodic features, hand/ arm gestures, direction of gaze, and facial expressions, as well as the marking of any particular linguistic features of interest. This is typically accomplished through standoff annotation, which is created and stored separately from audio/visual sources.

Scholars working with multimodal data have devised various analytical options. For example, Baldry and Thibault’s (2006) system of multimodal transcription places a series of still images captured from streaming video in a tabular format in which each image is accompanied by the corresponding verbiage, as well as descriptions of the various semiotic resources that may come into play. Wildfeuer (2013) adapts a similar tabular approach for the multimodal analysis of filmic discourse, but also includes camera positioning and shot description which are important elements in this genre. Multimodal annotation software, such as ELAN (Wittenburg *et al.* 2006), allows for an extremely accurate representation of a whole event. Under a streaming video, it is possible to set up multi-tiered analytical components that include the audio wave form, the tran-

script of the speech, and then other layers that can be personalised according to features of interest.

The above criteria for designing and compiling multimodal corpora have been taken into account in the collection of the ESP Video Clip Corpus, which entailed the following steps:

- Identification of appropriate sources that represent specialised discourse within a given genre covered in the corpus design (see above);
- Careful viewing of sources to identify clips that contain features relevant for ESP teaching (e.g. specialised vocabulary, idioms, humour, figurative language, culture-specific references), as well as any non-verbal features of interest), and preparation of separate text file with descriptive/pedagogic notes for each clip);
- Cutting of clips and saving them into individual mp4 files;
- Transcribing the speech of the clips and saving it into corresponding plain text files;
- Annotation within the transcript files for linguistic features of interest, using *ad-hoc* codes similar to POS tagging, e.g., SVTO (specialised vocabulary for tourism).

The corpus thus contains three distinct and layered components (video files, transcript files, teaching notes files), meaning that it will be searchable on various levels. It can then be used to develop audiovisual materials that can be leveraged in the ESP classroom. This will help learners develop the kind of multimodal literacy that will serve them not only for their immediate academic objectives, but also for their future professional careers in their discipline of choice.

### *References*

- ADOLPHS, SVENJA, 2013, "Corpora: Multimodal", In C. Chapelle (gen. ed.), *The Encyclopedia of Applied Linguistics*, Wiley-Blackwell, Malden, pp.1-4,  
<https://doi.org/10.1002/9781405198431.wbeal0233>
- BALDRY, ANTHONY and THIBAUT, PAUL J., 2006, *Multimodal Transcription and Text Analysis*, Equinox, London.
- CLOONAN, ANNE, 2008, "Multimodality Pedagogies: A Multiliteracies Approach", *International Journal of Learning* 15(9), pp. 159-168.

- CRAWFORD CAMICIOTTOLI, BELINDA and CAMPOY-CUBILLO, MARI CARMEN, 2018, "Introduction: The Nexus of Multimodality, Multimodal Literacy, and English Language Teaching in Research and Practice in Higher Education Settings", *System. An International Journal of Educational Technology and Applied Linguistics*, 77, pp. 1-9.
- JEWITT, CAREY and KRESS, GUNTHER (eds.), 2003, *Multimodal Literacy*, Peter Lang, New York.
- NEW LONDON GROUP, 1996, "A Pedagogy of Multiliteracies: Designing Social Futures", *Harvard Educational Review* 66(1), pp. 60-92.
- O'HALLORAN, KAY. L., TAN, SABINE, SMITH, BRADLEY. A., 2016, "Multimodal Approaches to English for Academic Purposes", In K. Hyland and P. Shaw (eds.), *The Routledge Handbook of English for Academic Purposes*, London, Routledge, pp. 256-269.
- STREET, BRIAN, PAHL, KATE, ROWSELL, JENNIFER, 2011, Multimodality and New Literacy Studies. In C. Jewitt (ed.), *The Routledge Handbook of Multimodal Analysis*, Routledge, London, pp. 191-200.
- WALSH, MAUREEN, 2010. "Multimodal Literacy: What Does It Mean for Classroom Practice?", *Australian Journal of Language and Literacy* 33(3), pp. 211-23.
- WILDFEUER, JANINE, 2013, *Film Discourse Interpretation: Towards a New Paradigm for Multimodal Film Analysis*. Routledge, New York.
- WITTENBURG, PETER, BRUGMAN, HENNIE, RUSSEL, ALBERT, KLASSMANN, ALEX, SLOETJES, HAN, 2006, "ELAN: A Professional Framework for Multimodality Research", *Proceedings of LREC 2006, Fifth International Conference on Language Resources and Evaluation*. Retrieved from [http://www.lrec-conf.org/proceedings/lrec2006/pdf/153\\_pdf](http://www.lrec-conf.org/proceedings/lrec2006/pdf/153_pdf).