Systemic Functional – Multimodal Discourse Analysis (SF-MDA) of KPG reading comprehension source texts

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NATIONAL AND KAPODISTRIAN UNIVERSITY OF ATHENS
FACULTY OF ENGLISH STUDIES

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PhD Thesis:

'Investigating the literacy requirements of

reading comprehension test tasks:

the case of the KPG exams in English'

Supervising Committee:
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Research Context of the Study

- language is conceived as a social phenomenon (Mitsikopoulou 2008)
- candidates are expected to be informed social subjects (Mitsikopoulou 2008)
- communicative performance is discursively defined and multimodal (Dendrinos 2008)
- a variety of discourses, text types and topics (Dendrinos 2008)
- the KPG view of language = a semiotic system in which meanings develop rather than pre-exist (Dendrinos 2008)

Multi- Literacies

- different literacies → discourses = different 'ways of being in the world' (Gee 1996)
- activation of candidates' 'multiliteracies' (Cope and Kalantzis 2000)
- drawing upon consciously or subconsciously attained 'multiple literacies' (Kern 2000)

Multimodality

- multimodality is an "inherent feature" of all aspects of people's life Matthiessen (2013)
- reconceptualisation of the notion of literacy (Unsworth 2006)
- visual aspects of communication → worthy of inspection (Holsanova 2012)
- semiotic division of labour between modes (van Leeuwen 2008, Kress 2010)
- synergistic functioning of modes – 'intersemiosis' (Royce 1998, O'Halloran *et al.* 2012)

The overall aim of the present research

 → to provide an account of the literacy requirements of reading test tasks

- What are the kinds of candidates' socially acquired knowledge that contribute to the effective meaning making of the KPG source texts containing multiple semiotic resources?

Key research questions:

- What kinds of literacy requirements are posed by the multimodal source texts of reading comprehension test tasks?

- What kinds of literacy requirements are created by the generic questions that accompany the source texts?

SF Theory: focus on Halliday's metafunctional principal

- a social semiotic theory where meaning depends on context (Halliday 1978)
- the three kinds of meaning are constructed simultaneously by every semiotic resource (Halliday and Hasan 1985, Halliday 2004, Eggins 2004)

❖ideational metafunction

(i.e., experiential meaning and logical relations)

❖interpersonal metafunction

❖textual metafunction

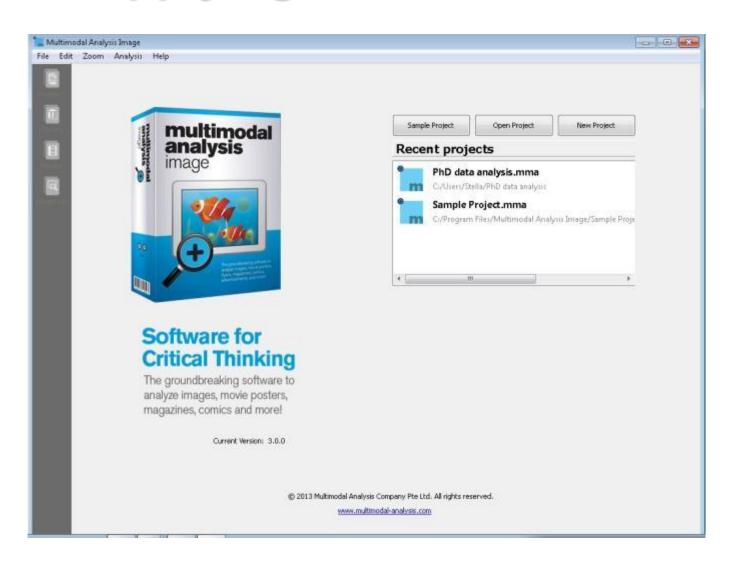# Multimodal Analysis Image (MMA) software (O'Halloran *et al*. 2012)

+ MMA resource book (Tan *et al*. 2012)

< *the Multimodal Analysis Lab, Interactive Digital Media Institute (IDMI) at the National University of Singapore*

- Aim: to shed light on the new literacy skills needed for the meaning-making process while reading multimodal texts

- a 'wide-ranging tool' suitable for researchers to systematically approach a wide variety of new media texts (O'Halloran *et al*. 2012)
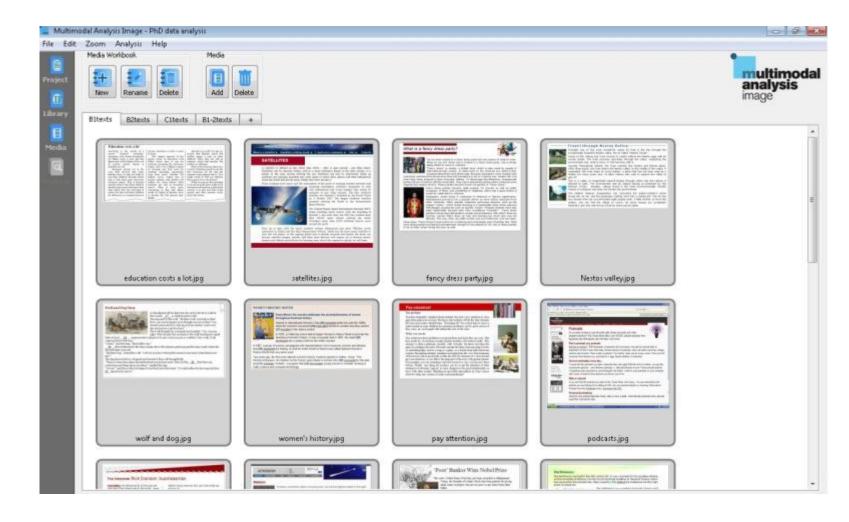
Advantages of Using MMA Software

- interactive software for multimodal analysis (O'Halloran *et al*. 2012)
- systematic identification of the main features, structures and ideas in the data source texts
- understanding of the different features of a variety of text types
- critical analysis of how visual and verbal components work together to create an impact and achieve the purposes of the texts
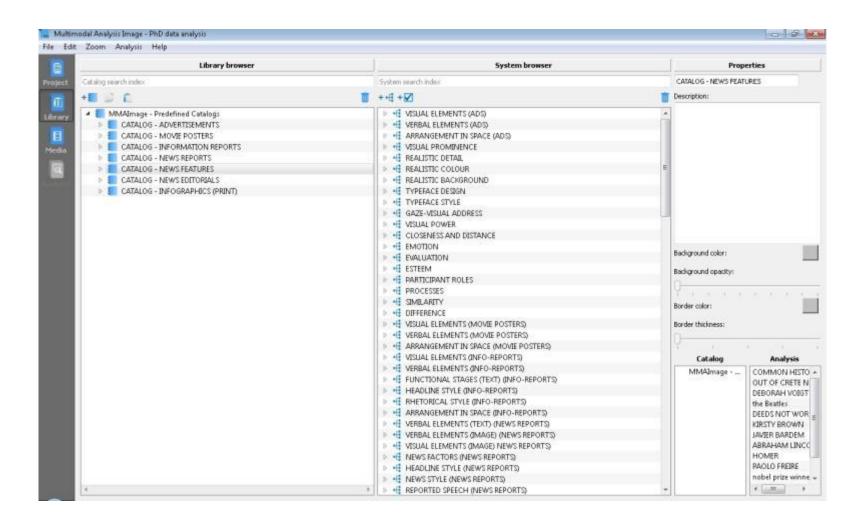- enjoyable working environment through its colourful design

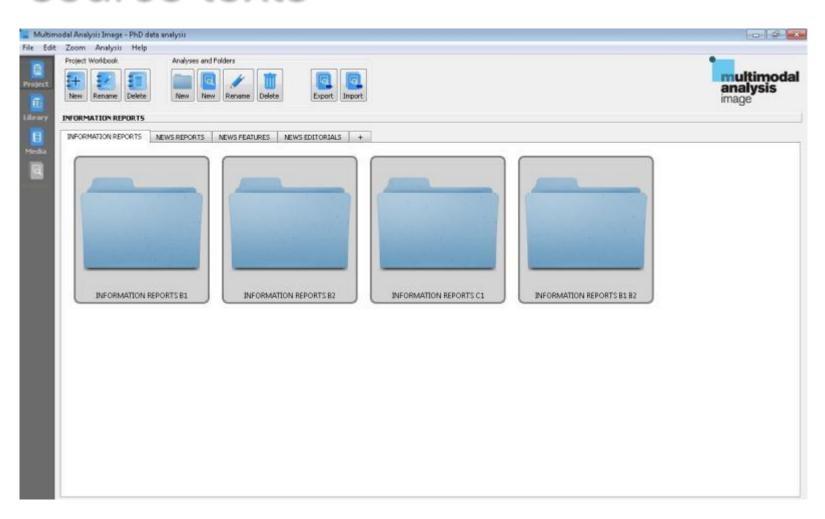# Applying MMA Software

MMA media files

MMA Library – System Choices

Knapp and Watkins (2005) classification of data source texts

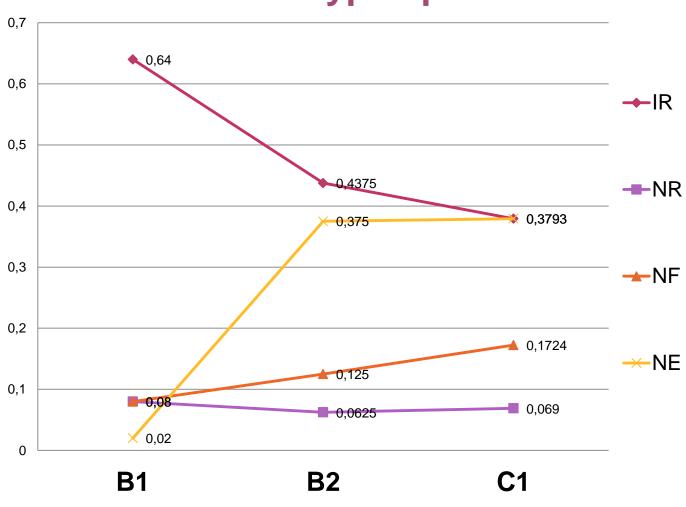| GENRE/ LEVEL	B1	B2	C1
(WEB)ARTICLE-COMMENTARY - REVIEW	21	23	28
LEAFLET	4	9	1
BIOGRAPHY / AUTOBIOGRAPHY	1	1	3
STORY/ NARRATIVE	1		
DIARY	1		
INTERVIEW	1	1	1
ENCYCLOPEDIC TEXT	1		2
BLOG ENTRY	1		
REFERENCE WORK		2	
TOTAL:	34	36	35
	TOTAL OF ALL KPG TEXTS/ PARTS OF TEXTS DATA: 105		
SUM OF ARTICLES/LEAFLETS	25 MDAs	32 MDAs	29 MDAs
	TOTAL OF MULTIMODAL DISCOURSE ANALYSES CONDUCTED: 86		

MMA classification of data source texts

Four MMA text-types

- Information Reports (or factsheets) (henceforth IR)
- News Reports (event reports, sports news) (henceforth NR)
- News Features (special interest stories) (henceforth NF)
- News Editorials (opinion reports and commentaries) (henceforth NE)

MMA Text-types per level

Using MMA catalogues of system choices for MDA

MMA Variables	No.
MMA System Name Catalogues	12
Verbal System Choice categories	9
Visual System Choice categories	6
Elements of verbal analysis	104
Elements of visual analysis	74
Elements of intersemiosis	5
Total No of elements of MDA	183

1. Design Elements

2. Organisational Structure

3. Functional Properties (text)

4. Elements of Composition

Travel through Nestos Valley

Probably one of the most wonderful routes by train is the trip through the exceptionally beautiful Nestos valley, the so-called "Nestos Tempi".

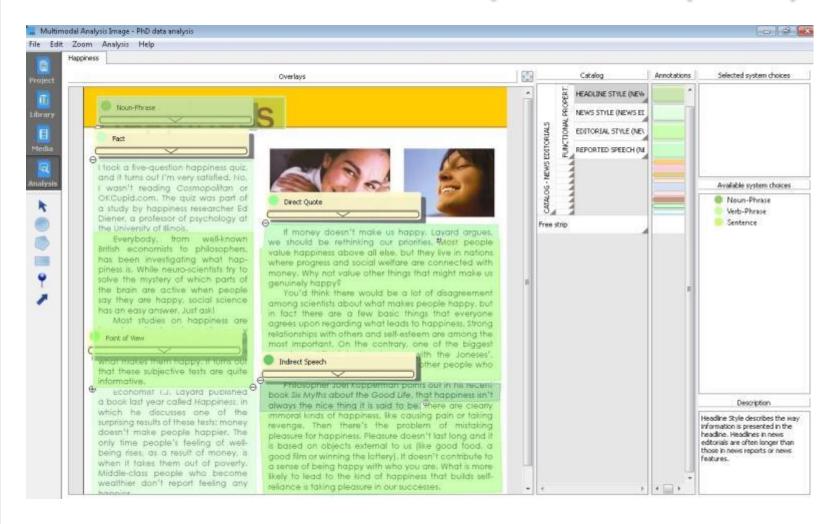Horizontal (left to right)

Sor_____ from _____ to Xanthi follows the Nestos river with its
wo visual mode first _____ retely through the valley, respecting the
env_____ armony with it.

Leaving Thessaloniki behind, the train reaches the Kerkini and Doirani lakes. After Stavroupoli, the train enters the Nestos valley. In the middle of the valley, if requested, the train stops at Livera station -a place that has not been used as a station for many years now- to allow visitors who wish to explore the valley to get off.

This is a valley of magnificent natural beauty through which only the railway is allowed to pass. The environment and its natural beauty is protected by the Ramsar Treaty. Besides, railway travel is the most environmentally friendly means of transport and does not burden the environment.

The Hellenic Railway Organisation has converted the station-master's stone house into an inn, and the passenger waiting room into a restaurant. The inn has two houses that can accommodate eight people each. A little further on from the station, one can find the village of Livera. Its stone houses are completely deserted, and only wild horses tread its stone-paved paths.

5. Elements of Visual Attraction

6. Visual Reality

7. Typography

Overlays

Catalog

Serif

Wide
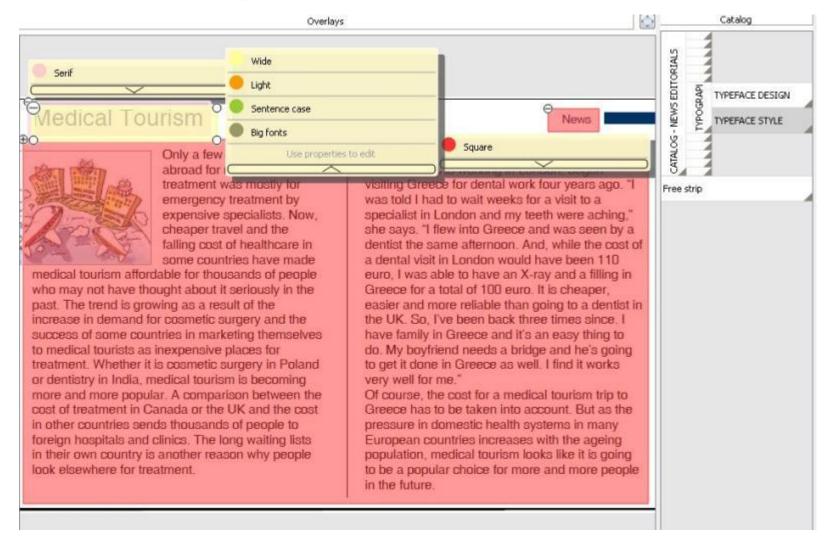Light
Sentence case
Big fonts

Use properties to edit

Medical Tourism

News

Square

Only a few abroad for treatment was mostly for emergency treatment by expensive specialists. Now, cheaper travel and the falling cost of healthcare in some countries have made medical tourism affordable for thousands of people who may not have thought about it seriously in the past. The trend is growing as a result of the increase in demand for cosmetic surgery and the success of some countries in marketing themselves to medical tourists as inexpensive places for treatment. Whether it is cosmetic surgery in Poland or dentistry in India, medical tourism is becoming more and more popular. A comparison between the cost of treatment in Canada or the UK and the cost in other countries sends thousands of people to foreign hospitals and clinics. The long waiting lists in their own country is another reason why people look elsewhere for treatment.

visiting Greece for dental work four years ago. "I was told I had to wait weeks for a visit to a specialist in London and my teeth were aching," she says. "I flew into Greece and was seen by a dentist the same afternoon. And, while the cost of a dental visit in London would have been 110 euro, I was able to have an X-ray and a filling in Greece for a total of 100 euro. It is cheaper, easier and more reliable than going to a dentist in the UK. So, I've been back three times since. I have family in Greece and it's an easy thing to do. My boyfriend needs a bridge and he's going to get it done in Greece as well. I find it works very well for me."

Of course, the cost for a medical tourism trip to Greece has to be taken into account. But as the pressure in domestic health systems in many European countries increases with the ageing population, medical tourism looks like it is going to be a popular choice for more and more people in the future.

CATALOG - NEWS EDITORIALS

TYPOGRAPH

TYPEFACE DESIGN

TYPEFACE STYLE

Free strip

8. Interpersonal Relations

Animal Rights and Animal Wrongs

The normally quiet streets of Oxford are occasionally disturbed by two groups of protesters who disagree about a new animal research laboratory that the University is building. One of the groups, Pro-Test, is made up of scientists and students demanding the right to carry out research freely; the other, SPEAK, consists of animal rights campaigners who say that no animal testing should be allowed.
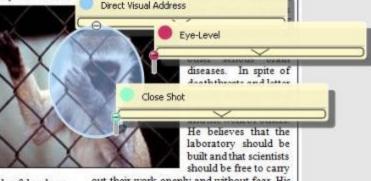
For Mel Broughton, the leader of SPEAK, there is no debate. In his view, all experiments on animals are wrong, cruel and must be stopped. He has been arrested several times, and served three years in prison, although he insists that the SPEAK campaign at Oxford is completely lawful and non-violent.

To his supporters, Broughton is a skilled and passionate leader. Every day, he and his fellow protesters gather outside the site where the new laboratory is being built. The builders work in masks, even though they are protected by the police, and supplies arrive by unmarked lorry so that the companies cannot be identified. The protesters shout abuse, looking a little like animals themselves as they scream in rage at the builders.

The group on the other side of the argument is Pro-Test, headed, perhaps surprisingly, by a 16-year-old schoolboy called Laurie Pycroft. He got the idea after a confrontation with an animal rights protester, and decided to set up a campaign in favour of scientific research and free speech. Within weeks, his campaign had attracted national attention, and its first big demonstration attracted hundreds of supporters.
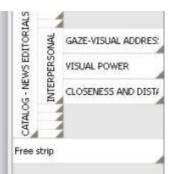
For Tipu Aziz, who is professor of neuroscience at Oxford University, and who has joined Pro-[...] diseases. In spite of death threats and letter [...] He believes that the laboratory should be bui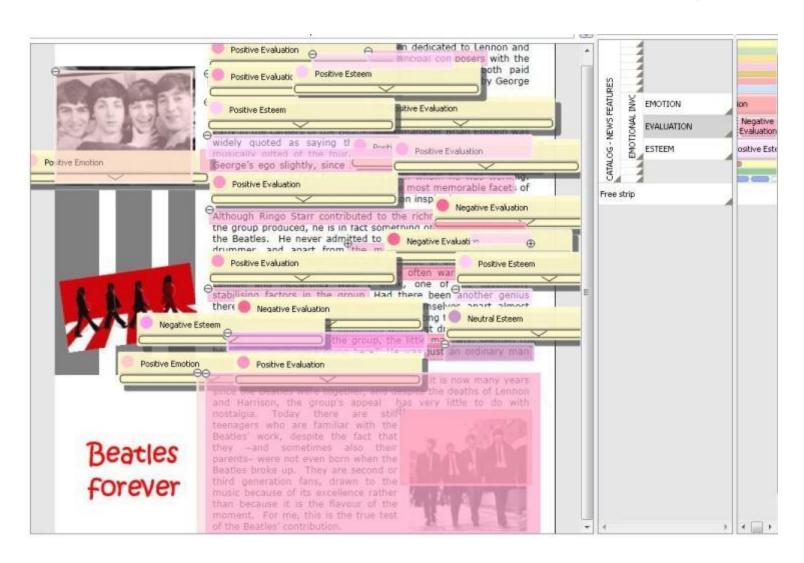lt and that scientists should be free to carry out their work openly and without fear. His own work, he says, has helped over 40,000 people.

On such an emotional issue, there is little chance of reasonable discussion, and to many people it is a question of numbers. Most people would think it right to carry out research on one monkey to save 100,000 human beings. On the other hand, they might question using 100,000 monkeys to save one human. In the end it is a question of where you draw the line, and on that point, it may never be possible to reach an agreement.
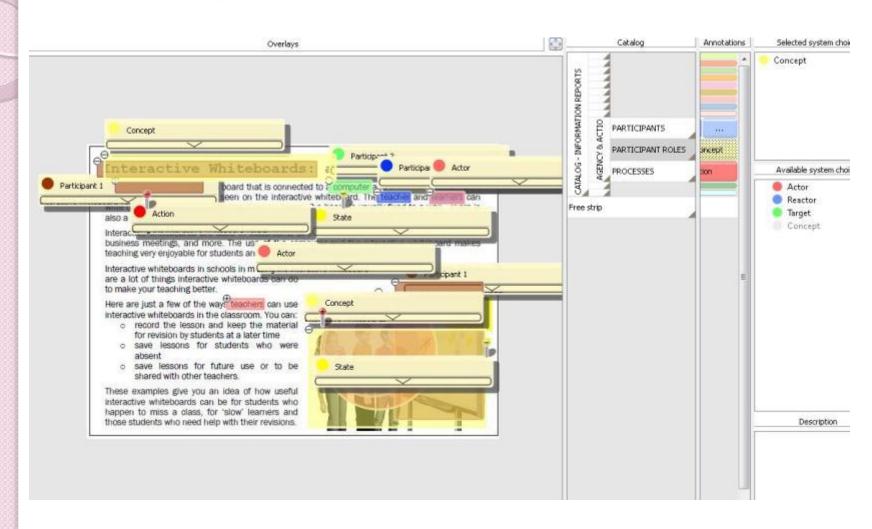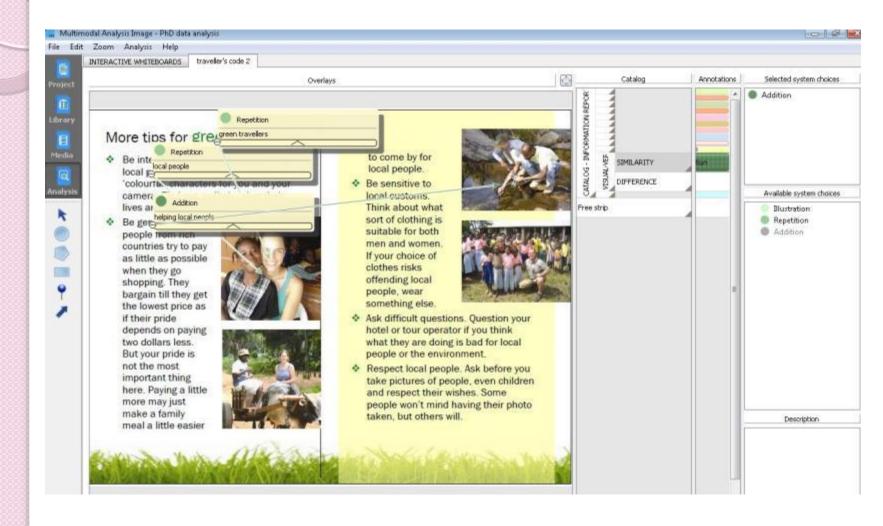
Our Environment, 3 May 2007

Direct Visual Address

Eye-Level

Close Shot

CATALOG - NEWS EDITORIALS

INTERPERSONAL

GAZE-VISUAL ADDRESS

VISUAL POWER

CLOSENESS AND DISTANCE

Free strip

9.Emotional Involvement (text and image)

10. Agency & Action

11. Visual-Verbal Relations

12. Grammar at Text Level

VERBAL	VISUAL	INTERSEMIOSIS
The ideational metafunction of the text		
GRAMMAR AT TEXT LEVEL		VISUAL-VERBAL RELATIONS
COHESIVE DEVICES (LINKS)		SIMILARITY
VERBS		DIFFERENCE
DESCRIBING		
CLASSIFYING & DEFINING		
COMPARING & CONTRASTING		
PERSONAL PRONOUNS		
TENSE		
AGENCY & ACTION	AGENCY & ACTION	
PARTICIPANTS	PARTICIPANTS	

VERBAL	VISUAL	INTERSEMIOSIS
The interpersonal metafunction of the text		
AGENCY & ACTION	**AGENCY & ACTION**	
PARTICIPANT ROLES	PARTICIPANT ROLES	
PROCESSES	PROCESSES	
AGENCY TYPE		
EMOTIONAL INVOLVEMENT (TEXT AND IMAGE)	**EMOTIONAL INVOLVEMENT (TEXT AND IMAGE)**	
EMOTIONAL	EMOTIONAL	
EVALUATION	EVALUATION	
ESTEEM	ESTEEM	
GRAMMAR AT TEXT LEVEL	**INTERPERSONAL RELATIONS**	
PRESENTING INFORMATION	GAZE-VISUAL ADDRESS	
	VISUAL POWER	
	CLOSENESS AND DISTANCE	
	VISUAL REALITY	
	REALISTIC DETAIL	
	REALISTIC COLOUR	
	REALISTIC BACKGROUND	

VERBAL	VISUAL	INTERSEMIOSIS
The textual metafunction of the text		
DESIGN ELEMENTS	DESIGN ELEMENTS	
VERBAL ELEMENTS	**VISUAL ELEMENTS**	
VERBAL ELEMENTS (IMAGE)	**VISUAL-VERBAL ELEMENTS (DRAWING/CARTOON)**	
ORGANIZATIONAL STRUCTURE (TEXT)	**NON-LINGUISTIC ELEMENTS (DRAWING/CARTOON)**	
FUNCTIONAL STAGES	ELEMENTS OF VISUAL ATTRACTION	
FUNCTIONAL PROPERTIES (TEXT)	**VISUAL PROMINENCE**	
HEADLINE STYLE		
RHETORICAL STYLE		
REPORTED SPEECH		
EDITORIAL STYLE		
ELEMENTS OF COMPOSITION		
ARRANGEMENT IN SPACE		
TYPOGRAPHY		
TYPEFACE DESIGN		
TYPEFACE STYLE		

Concluding remarks

- contribution of my work to the development of the MMA software package

- current stage of my PhD work

References

- Cope, Bill and Mary Kalantzis (eds) 2000. *Multiliteracies: Literacy Learning and the Design of Social Futures.* London: Routledge.

- Dendrinos, Bessie. 2008. 'The Reading and Listening comprehension Modules of KPG'. Presentation at in-house seminar

- Eggins, Suzanne. 2004. *An Introduction to Systemic Functional Linguistics*. London: Pinter.

- Gee, James Paul. 1996. *Social Linguistics and Literacies: Ideology in Discourses*. London: Falmer Press

- Halliday, M.A.K. 1976. 'Anti-languages'. *American Anthropologist* 78 (3): 570-84. Reprinted in Halliday 1978, 164-82.

- Halliday, M.A.K. 1978. *Language as a Social Semiotic*: *the Social Interpretation of Language and Meaning.* London: Edward Arnold.

- Halliday, M.A.K. and Ruqaiya Hasan.1985. *Language, Context, and Text: Aspects of Language in a Social-semiotic Perspective.* Geelong: Deakin University Press.

- Halliday, M.A.K and Christian Matthiessen. 2004. *An Introduction to Functional Grammar* (3rd Edition). London: Edward Arnold.

- Holsanova, Jana. 2012. 'New methods for studying visual communication and multimodal integration'. *Visual Communication* 11 (251).

- Jewitt, C. 2009 'Introduction: What Is Multimodality?', in C. Jewitt (ed.) The Routledge Handbook of Multimodal Analysis, pp. 14–27. London: Routledge Kress, G. and Van Leeuwen, T. (1996) *Reading Images: The Grammar of Visual Design.* London: Routledge.

- Kern, Richard. 2000. *Literacy and language teaching*. New York: Oxford University Press.

- Knapp, P. & M. Watkins. 2005. *Genre, Text, Grammar: technologies for teaching and assessing writing.* Sydney : University of South Wales Press.

- Kress, Gunther. 2010. *Multimodality: A social semiotic approach to contemporary communication*. London: Routledge.

- Kress, G. and van Leeuwen, T. 2007. *Reading Images: The Grammar of Visual Design*. Second Edition. London: Routledge.

- Matthiessen, Christian M.I.M. 2013. 'The Multimodal Page: a Systemic Functional Exploration.' In Terry, Royce and Wendy Bowcher (eds.) *New directions in the Analysis of Multimodal Discourse*. London: Routledge.

- Mitsikopoulou, Vasiliki. (ed.). 2008. The KPG writing test in English: A Handbook. University of Athens: RCEL publications (RCEL Publications, Series editors Bessie Dendrinos and Kia Karavas)

- O'Halloran, Kay. 2003. 'Systemics 1.0: Software for Research and Teaching Systemic Functional Linguistics'.*RELC Journal*. 34:155-177.

- O'Halloran, Kay. L. 2008. 'Systemic functional-multimodal discourse analysis (SF-MDA): constructing ideational meaning using language and visual imagery'. *Visual Communication* 7: 443.

- O' Halloran, Kay, Alexey Podlasov, Alvin Chua and Marissa K.L.E. 2012. 'Interactive Software for Multimodal Analysis'.*Visual Communication*. Vol. 11 (3): 363-381.

- O'Toole, M. 1994. *The Language of Displayed Art*. London: Leicester University Press

- Royce, Terry. D. 1998. 'Synergy on the page: exploring intersemiotic complimentarity in page-based multimodal text.' In *JASFL. Occasional Papers* 1(1): 25-49.

- Tan, Sabine, E. Marissa K.L. and Kay O' Halloran. 2012. *Multimodal Analysis Image (Teacher Edition)* Singapore: Multimodal Analysis Company

- Unsworth, Len. 2006. 'Image/ text relations and intersemiosis: towards multimodal text description for multiliteracies education'. In *33rd International Systemic Functional Congress Proceedings.*

- van Leeuwen, Theo. 2008. *Discourse and Practice: New Tools for Critical Discourse Analysis.* Oxford: Oxford University Press

Thank you very much for your attention!