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From the Editor

MULTIMODAL MEANS OF INSTRUCTION: BROADENING ACADEMIC LITERACIES AND PRACTICES

Departing from the concept of multimodality as “a field of application rather than a theory” (Bezemer and Jewitt 2010: 180), the current volume aims at presenting multimodal practices in different learning environments. Multimodal means of instruction can overtly change communication landscapes in terms of spaces and texts. In this volume, new academic identities are revised departing from multimodal texts (visual texts, written texts that use images, written texts that discuss visuals, etc.) which combine with the primary aim of generating meaning.

This issue intends to delve into the definition of Multimodality in order to promote multimodal learning environments by revisiting theories and practices of multimodal education. The volume includes valuable contributions to Multimodality in education trying to ease the differences between conventional teaching practices and the fast constant changes of the modern society (Kress and Van Leeuwen 2001). The volume works as an updated reference for multimodality in different spaces, varied modes and diverse texts within disciplinary variations for pedagogical practices.

The volume is divided into two main sections, a wider section with four full papers and a following section with a book review. In the opening article of this volume **Stefania Consonni** analyses PowerPoint (PPT) as a leading genre in academic discourse, focussing on the implementation of student motivation boosting strategies. She explores how PPT can be used to motivate teachers and students from two perspectives, ideational and interactional, using multimodal and critical discourse analysis approaches.

In the next contribution, **Larissa D’Angelo** discusses the effectiveness of the pre-formatted construction of discourse through PowerPoint presentations by observing the abuse of bullet point presentations, the limited format and size of slides that support minimum content and the ever-present risk of overwhelming viewers with too much text

or data. She concludes that multimodal PowerPoint artefacts simply enrich and accompany what the presenter has to say, and recommends presenters to regain confidence in their oratorical skill instead of allowing the slides dominate their presentations.

In the next article, **Ruth Breeze** brings us closer to multimodality in Fine Arts. She focuses on the genre of single image account (SIA) (Swales 2016) for didactic purposes by examining pedagogical resources on the National Gallery's website. She argues that SIAs are combined with suggestions to enhance primary school pupils' learning through creative activities across a variety of modes. She eventually proposes guidelines for writing SIAs for educational purposes in other contexts.

In the final contribution to this issue, **Tamara Hernández** analyses feedback on written production and how the use of new technologies in the classroom such as Grammar Checker can aid both, the teacher in the correction process and the students in their language development. After comparing feedback provided by the teacher and feedback provided by the software Grammar Checker to a group of English as foreign language students, she concludes that Grammar Checker can be a potential tool for self-correction and that feedback may facilitate students' language development.

In the book review that follows, **Lucía Bellés-Calvera** revises the publication *Multimodality in Higher Education*, by Archer and Breuer (2016). The volume deals with multimodal writing practices and pedagogies in tertiary education. The work approaches forms of academic writing that have been catalogued as academic genres, therefore known by an academic discourse community that has previous knowledge on the genre and its conventions. The volume is undoubtedly a valuable contribution to the dissemination of multimodal knowledge in Higher Education.

I would like to close this Editorial by especially thanking my colleague and co-editor of this volume Carmen Sancho Guinda. Likewise, I am grateful to all the scholars that have collaborated in the peer-review process of the articles that make up this volume.

Begoña Bellés-Fortuño
Editor
Universitat Jaume I, Spain

References

- Bezemer, J. and Jewitt, C.** 2010. "Multimodal Analysis: Key Issues". In Litosseliti, L. (Ed.), *Research Methods in Linguistics*. London: Continuum, 180-197.
- Kress, G. and Van Leeuwen, T.** 2001. *Multimodal Discourse: The Modes and Media of Contemporary Communication*. London: Arnold.
- Swales, J.** 2016. "Configuring image and context: writing 'about' pictures". *English for Specific Purposes*, 41, 22-35.

Multimodal literacy in academic environments: PowerPoint as a motivational genre

Stefania Consonni

stefania.consonni@unibg.it

Università degli Studi di Bergamo, Italy

ABSTRACT

This paper explores PowerPoint (PPT) as a leading genre in academic discourse, focussing on the implementation of student motivation boosting strategies. ICT nowadays plays an increasingly important role in pedagogy, by reinforcing the informative and persuasive impact of instructional materials through multimodal strategies including verbal and visual codes, as well as performative elements. A hybrid genre in academic oratory, PPT offers corporeality of knowledge, modularity and easily transmittable format, providing presentations with structure and facilitating ordering and summarizing operations. PPT can therefore be ranked among today's epistemic machineries, whereby knowledge is construed by discourse. The paper analyses the semiotic and metadiscursive features of a corpus of presentations produced in various universities for both academic staff and students. Research questions explore how PPT can be used to motivate teachers and students, from both an ideational and interactional standpoint. An integrated analytical approach is employed, bridging multimodal and critical discourse analysis.

Keywords: *Multimodality, PowerPoint, digital literacy, motivation, academic discourse, genre analysis*

I. INTRODUCTION

This paper addresses the ways in which Information and Communication Technology (ICT), and particularly PowerPoint (PPT), is affecting the semiotic and linguistic features of academic communication, both in symmetric and asymmetric settings, with a specific focus on the dissemination and implementation of student motivation boosting strategies. Motivation is a major factor in today's pedagogy: as the Latin root of the word suggests, to motivate students means 'to move' them, i.e., to incentive or drive them to act in order to achieve specific results or goals (Williams and Williams 2011: 2). As socio-cognitive psychology indicates, motivation and cognition work in concert, in that individuals have the ability to discern how to regulate their behaviour so that it meets their learning goals (Eccles and Wigfield 2002: 123). Research on the psychopedagogy of foreign languages and the pedagogical influence of ICT (Dörnyei 2001; Dörnyei and Schmidt 2001) has shown in particular that students should be encouraged to play an active role in the educational process (Bellés-Fortuño and Ollero 2015: 146),

for this can optimise the degree of their commitment to (and pleasure in) learning. This means that reluctant learners can become self-regulated learners, i.e., they can learn how to apply agency, purpose and self-efficacy beliefs, and set goals and performance outcomes for themselves.

Presentation software nowadays plays an increasingly important role in supporting and reinforcing the informative and persuasive impact of instructional materials through multimodal strategies – including verbal and visual codes, structured and performative elements, as well as kinesic and paralinguistic features – which prove crucial in motivating students. While there is some debate around the argumentative style of PPT, especially targeting its syntactically deprived, noun-phrase-bullet-point repetitiveness (Tufte 2003), evidence shows that, from the point of view of students, PPT's motivational impact cannot be denied, in terms of both promoting intentions and boosting results (Amare 2006; Kosslyn et al. 2012; Stark and Paravel 2008; Susskind 2005). A number of affordances contribute to the pedagogical efficacy of slideshows, including argumentative immediacy, corporeality of knowledge, modularity, easily transmittable format (Kaplan 2011), as well as the facilitation of pacing and summarizing operations (Lari 2014; Paoletti et al. 2012).

This paper investigates the multi-literacy strategies employed in a corpus of motivational PPT presentations from various universities, aimed at both academic staff (i.e., instructing lecturers on how to motivate students) and at students themselves (i.e., offering advice on how to optimize resources and skills). An integrated methodological framework will be employed, bridging multimodal, critical discourse and genre analysis. As a matter of fact, PPT meaning-making processes stem from a conflation of verbal language (Alley and Neely 2005; Blalock and Montgomery 2005; Burke and James 2008; Paoletti et al. 2012), visual strategies (Clark 2008; Diani 2015; Wysocki 2003, 2007), and bodily communication, such as gesticulation and pointing (Jurado 2015; Knoblauch 2008), all of which make PPT a hybrid genre in academic oratory. As multi-semiotic objects, PPTs will be here investigated from two intertwined perspectives, stemming from Systemic Functional Grammar metafunctions (Halliday 2002, 2004):

(i) on the ideational level – dealing with the ways in which a visual and textual construct can signify the ‘real’ world inside its semiotic boundaries, and thus convey extra-linguistic experience (Halliday 2004: 29) – the representation of informative meanings in PPTs will be examined. A typology of the semiotic modes employed in the corpus will single out the referential strategies building a unified image of students’ self-confidence and study skill optimisation. Such multimodal analysis will highlight the visually realised aspect of motivation discourse in the corpus, stimulating the following research question: to what extent, and with what effects, does the intersemiotic translation of different modes (Jakobson 1959: 233) shape the ideational component of PPT as a multi-literacy genre in academic discourse?

(ii) on the interpersonal level – dealing with the creation of contact and engagement strategies between a visual and textual construct and its embedded audience, and accounting for the linguistic construction of social relationships (Halliday 2004: 29) – the paper will identify and quantify the most recurrent metadiscursive features employed in order to maximize engagement of both teachers and learners. A typology of the most frequent engagement markers and functions (Hyland 2005: 53-54; Heino, Tervonen and Tommola 2002) will showcase the interactional significance (and verbal realisation) of motivation discourse in the PPT corpus. The following research question will be addressed: how do different realisations of engagement within the instructional community contribute to define the rationale for PPT as a prominent genre in academic communication?

The interaction between the ideational and interactional features of PPT as an academic genre will lastly be explored, following a social semiotic approach to multimodal analysis (Kress and Van Leeuwen 1996, 2001), in order to examine the extent to (and the ways in) which each level contributes in the resemiotization process construing PPT as an example of synoptic/multi-semiotic textuality (Charles and Ventola 2002: 172).

II. MATERIALS

For the purpose of this analysis, a corpus of 32 PPT presentations, recently produced by different universities in 22 countries (including Europe, Africa, China, India, Russia and the USA), has been assembled. The Google search engine (KW: “academic motivation .ppt”) has been used in order to retrieve the documents. Given PPT’s diffusion as the “most ubiquitous form of digitally assisted demonstration”, aimed at a manifold “socio-technical assemblage” of audiences (Stark and Paravel 2008: 3), and assuming academic motivation to be a complex psycho-social phenomenon (Eccles and Wigfield 2002), an equal number of slideshows targeted to lecturers and to students have been sampled. The former instruct academic staff on how to inspire intentional learners, stimulate commitment to attend class and perform well in exams, while the latter train students to set goals, enhance competence and self-efficacy perception, develop study skills and autonomous behaviour, etc. Two subcorpora have thus been obtained, contrasting symmetric (subcorpus 1) vs. asymmetric (subcorpus 2) communication contexts, totalling 1,213 slides and 56,288 words, as can be seen in Table 1.

Table 1. Distribution of materials in the corpus.

	Number of slides	Number of words
Subcorpus 1 (Symmetric) Staff to staff	744	38,254
Subcorpus 2 (Asymmetric) Staff to students	469	18,034
Total	1,213	56,288

III. METHOD

This study incorporates socio-visual semiotics and metadiscourse analysis. On the ideational level, a contrastive analysis of the visual communication strategies employed in the corpus will be carried out, highlighting the different semiotic resources employed in PPTs in order to convey referential contents, in both symmetric and asymmetric settings. A multiplicity of visual modes – all of which carrying significant functional load (Tardy 2005: 320) – can be evidenced to interact simultaneously and synergetically

(Diani 2015: 103) in the corpus. A typology of four semiotic types of visuals will be organised:

- a) the *numerical* mode, i.e., the quantitative presentation of empirical data via mathematical formulae and/or such devices as numerical tables (Bertin 2001; Rowley-Jolivet 2002);
- b) the *graphical* mode, i.e., the presentation of information to be found in graphs, diagrams, maps and other artefacts based on info-graphical strategies (Bertin 2011), aiming at the conceptual framing and synoptic visualization of empirical quantities, so as to display information incidence, evidence, recurrence patterns, etc.;
- c) the *scriptural* or *linguistic* mode, i.e., the presentation of information using written verbal language (Rowley-Jolivet 2000, 2002), pivoting on the linguistic and argumentative construction of information;
- d) the *figurative* mode, i.e., the presentation of information using visual artefacts such as photographs, images, webpages, etc. (Rowley-Jolivet 2002, 2004), which hinge on allusive and affective symbolizations of empirical reality, so as to elicit emotional responses on the part of the viewer.

It should be noted that (a) and (b) are monosemic modes, in that, by referring to empirical quantities in extra-linguistic reality, the meaning of every sign is defined beforehand, and known prior to (and regardless of) any “observation of the collection of signs” (Bertin 2011:2). While both mathematics and graphics display high adherence to empirical phenomena, i.e., they generally tend to be perceived as unambiguous, objective, neutral and non-culture driven, they differ as to their perceptual structure, for graphics visually provides instantaneous perception to quantitative phenomena which would otherwise require longer processing. In the light of this, it is possible to explain today’s growing need for the visualization of data and information (Friendly 2009; Tufte 2001). (C) and (d) are instead polysemic modes, because “the meaning of the individual sign follows and is deduced from consideration of the collection of signs”, so that “signification becomes subjective and thus debatable” (Bertin 2011: 2).

Although the difference between written language and figurative imagery largely amounts to their appeal to different sensory stimuli (hearing and sight), and to the different referential and social interactions strategies they employ, both are perceived as being on the opposite side of the referential spectrum from mathematics and graphics, as they tend to be considered subjective, biased and culture driven. Although social semiotics has fully clarified that visual language works on a lexicogrammar of its own, realizing meanings as linguistic structures do (Kress 2003, 2010; Kress and Van Leeuwen 1996, 2001; Van Leeuwen 2004, 2005), and that no human (re)presentation of extra-linguistic reality is ever without cognitive effects, such perception may have an explanation. As a matter of fact, while numerical and graphical visuals tend to naturalize the distance between their semiotic boundaries and the reality they – as signs – stand for, the scriptural and figurative modes tend to emphasize such hiatus, and to display their “rich cultural load” (Rowley-Jolivet 2000: 4), since in the case of polysemic codes, the “reading operation takes place between the sign and its meaning”, whereby ambiguity and subjectivity are brought in the process (Bertin 2011: 2). Reading pictures, as well as reading words, actually involves not only construing meanings from what we see/read, but also from what we know (Kostelnick 1993: 244), which makes both operations overtly cognitive in nature. Figure 1 offers a schematization of the semiotic modes along the (perceived) referential continuum.

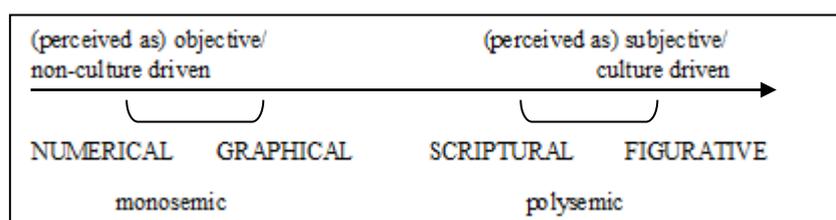


Figure 1. The four semiotic modes along the referential continuum.

The present analysis will account for the proportions, functions and variation patterns of numerical, graphical, scriptural and figurative slides in both PPT subcorpora. The cognitive interplay among all types can, as a matter of fact, provide an ideational picture of PPT as an integration code (Kress and Van Leeuwen 2004) hinging on semiotic spanning processes among concurrent co-textual modes (Charles and Ventola 2002).

On the interpersonal level, a microscopic bottom-up linguistic analysis will be carried out – within the scriptural slides of both PPT subcorpora – in order to identify and quantify the most recurrent interaction-oriented metadiscourse features creating engagement effects with readers/viewers. A typology of engagement markers (Hyland 2005: 53-54; Heino, Tammola and Tervonen 2002; Vassileva 2002; Webber 2002, 2005) will be organised and discussed, accounting for the verbal realizations of motivation discourse:

- a) READER PRONOUNS (*you, your, yourself*), i.e., direct appeals to the audience embedded in presentations, which are highly expected to develop a sense of meanings being specifically produced for them;
- b) COMMUNITY PRONOUNS (inclusive *we, our, ourselves*), i.e., appeals to an integrated educational community, in which a sense of togetherness and commonality is built;
- c) QUESTIONS, i.e., structures positing meanings interrogatively rather than assertively, covering doubts the audience may have on specific aspects, suggesting or anticipating a cognitive gap that the presentation will deal with, signalling “queries in need of reply, interpretation, and conclusion” (Soler 2007: 100);
- d) IMPERATIVES, i.e., directive structures conveying do’s and don’ts to be implemented;
- e) OBLIGATION, or compulsion, modals (*should, must, have to, need to*), i.e., modals implying “to a greater or lesser extent, that the speaker is advocating a certain form of behaviour” from the part of the audience (Quirk and Greenbaum 1990/2008: 68).

The proportions, functions and variation patterns among the five types of engagement markers and between the subcorpora will be discussed, in order to evidence the ways in which two different segments of a discourse community are targeted by specific interactional resources and pragmatic strategies.

IV. RESULTS

IV.1. Ideational level

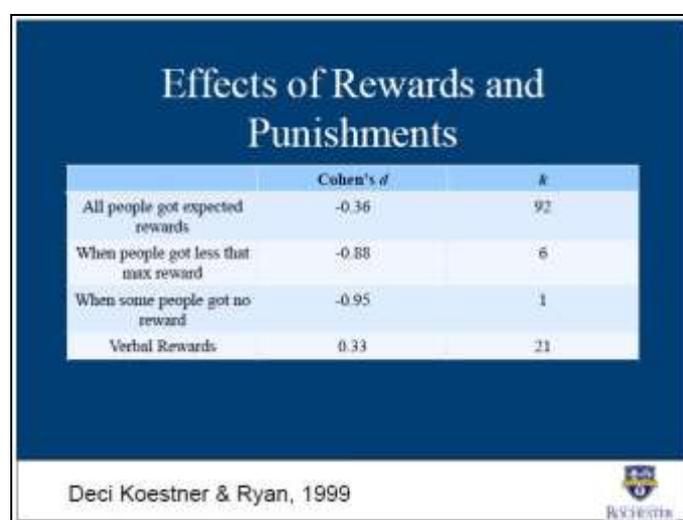
Table 2 provides a breakdown of the semiotic types of slides (numerical, graphical, scriptural and figurative) to be found in each PPT presentation, and in each subcorpus.

Table 2. Semiotic modes in PPT presentations: variations between subcorpora

PPT	No. SLIDES	AVG.	NUMERICAL	GRAPHICAL	SCRIPTURAL	FIGURATIVE
SUBCORPUS 1: symmetric context (staff to staff)						
01	29	46,5	3	1	25	0
02	48		5	7	35	1
03	35		0	3	18	14
04	40		0	9	30	1
05	25		2	2	21	0
06	26		3	5	18	0
07	48		0	0	45	3
08	24		0	2	18	4
09	35		0	1	33	1
10	28		0	2	25	0
11	65		0	3	58	4
12	18		0	1	17	0
13	72		0	28	41	3
14	21		0	0	21	0
15	102		0	1	86	15
16	128		0	4	105	19
Tot. SUBCORPUS1: 744			13 (1,8%)	69 (9,3%)	596 (80,1%)	65 (8,8%)
SUBCORPUS 2: asymmetric context (staff to students)						
17	61	29,3	0	7	18	36
18	24		0	2	18	4
19	28		0	0	11	17
20	21		0	0	21	0
21	28		0	2	25	1
22	37		0	0	10	17
23	34		0	3	23	8
24	9		0	0	5	4
25	20		2	4	14	0
26	22		0	1	19	2
27	25		1	0	16	8
28	25		0	7	10	8
29	21		0	0	16	5
30	15		0	0	8	7
31	42		0	22	20	0
32	57		0	6	49	2
Tot. SUBCORPUS 2: 469			3 (0,7%)	54 (11,5%)	283 (60,4%)	119 (25,4%)

The typology has been organized following the referential continuum in Figure 1. Beside the disparity in the total (744 vs. 469), and in the average number of slides (46,5 vs. 29,3) in the subcorpora – which could be explained in terms of the different attention span and literacy standards to be expected from an expert vs. student audience – the table evidences some remarkable variations among the semiotic modes.

Numerical slides, presenting empirical reality via quantitative tables and formulae, seldom occur in both subcorpora (1,8% in subcorpus 1 and 0,7% in subcorpus 2). Their typical function is to provide figures as empirical, or scientific, evidence to what is being discussed in the presentation, as is shown for instance in Figure 2 (Williams 2013, from subcorpus 1), informing lecturers about the statistical significance of typical operant conditioning measures. Given that the pragmatic purpose of the PPT corpus in consideration is to motivate people, whatever their role in the educational process, it is not surprising that numerical slides should appear as the least frequent mode: as a highly discipline-specific type of visual, they can perform gate-keeping functions with respect to the lay audience, thus producing ostracism and exclusion effects (Kostelnick 1993: 250).



	Cohen's <i>d</i>	<i>N</i>
All people got expected rewards	-0.36	92
When people got less than max reward	-0.88	6
When some people got no reward	-0.95	1
Verbal Rewards	0.33	21

Deci Koestner & Ryan, 1999

Figure 2. Numerical slide (Williams 2013)

A fairly similar trend is shown in both subcorpora by another token of highly specialized visual communication: amounting to 9,3% of subcorpus 1 and 11,5% of subcorpus 2, graphical slides are represented by diagrams, charts, maps and other data visualization devices, which present extra-linguistic reality by means of picturing relevant numerical

quantities. Although the graphical portrayal of quantitative information may be perceived as an epistemologically neutral operation, one which does not interfere with the objective rendering of reality as it is, outside of any semiotic system, this is merely the effect of epistemic and social naturalization. A graph, for instance, is designed in order to show evidence, emphasize relevance of information, frame significant data, etc. Despite its monosemic character, it is in itself a cognitive operation, entailing a certain degree of interpretation of extra-textual reality. The reading of empirical data through patterns is easier to perceive in visual rather than in numerical (or textual) form, because of the highly informative – and claim-making – potential of info-graphical compositional knowledge. This makes the graphical mode an optimal resource for the coding of topological meanings in computational terms (Rowley-Jolivet 2000: 6), and a most effective strategy in discipline-oriented professional visualization, one that is also deeply linked to the epistemology of the disciplinary field in which such visuals are produced (ibid.). In both PPT subcorpora under examination, graphical slides have this function, as can be seen in Figure 3 (Mertz 2013). This graphical slide from subcorpus 2 shows students how to develop leadership skills by visualizing the quantitative relationship between task- (or individual-)focused behaviour and social (or supportive) behaviour.

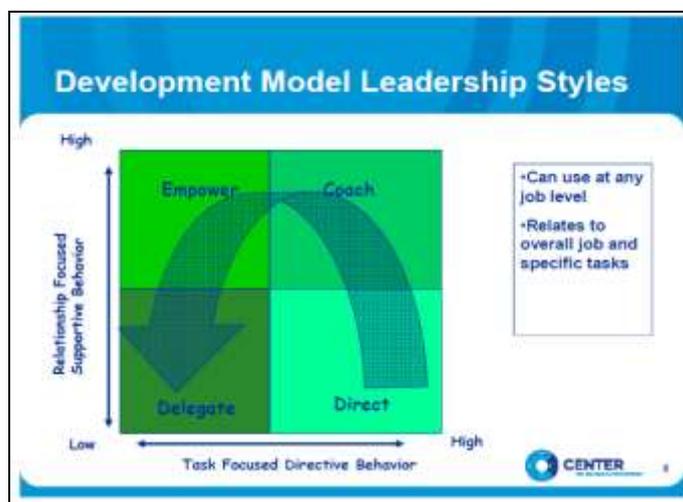


Figure 3. Graphical slide (Mertz 2013)

Opposite trends are instead shown by the two most frequent semiotic modes in both subcorpora, namely, the polysemic ones: linguistic slides amount to 80,1% of subcorpus

1 vs. 60,4% of subcorpus 2, while figurative slides represent 8,8% of subcorpus 1 vs. 25,4% in subcorpus 2. A closer look at the data reveals that approximately twice as many scriptural slides can be found in subcorpus 1 (596) than in subcorpus 2 (283), while the reverse applies to figurative slides (119 in subcorpus 2 vs. 65 in subcorpus 1). This seems to suggest that in staff-to-staff presentations, when it comes to the preferred strategy for structuring ideational contents, especially when typological meanings are involved, words are expected to be more effective than pictures: that is, when targeting the logical and argumentative competence of academic staff, the verbal and linguistic construction of information prevails, as can for instance be inferred from Figure 4 (Wood 2017, from subcorpus 1), explaining a researcher's key findings in psycho-cognitive pedagogy.

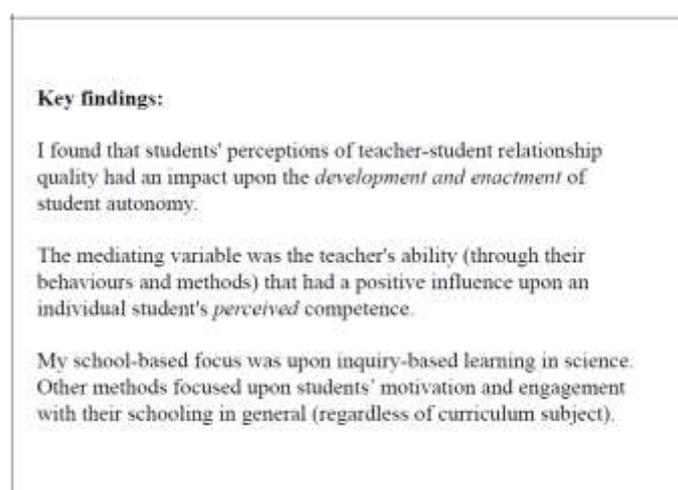


Figure 4. Scriptural slide (Wood 2017)

Conversely, the dominant mode in asymmetric presentations is the allusive, affective and persuasive representation of polysemic visuals. Figurative language is preferred when an emotional response – which is at the foundation of self-motivation processes (Clark 2003) – is being elicited, as can be inferred from Figure 5 (Salama 2014, from subcorpus 2), featuring a portrait of what motivation and team work may look like, in the shape of an inspiring illustration of social-supportive behaviour. Being endowed with a high degree of iconicity, i.e., a complex referential load, which makes signification a subjectively biased operation, calling for disambiguation from the part of the viewer in order to be fully understood, figurative imagery pivots on the emotional response of the

audience, who is engaged in complementing the allusive stimuli offered by the visuals with personal meanings. For this reason, figurative visuals are typical of advertising language, for their main function is a persuasive one (Rowley-Jolivet 2002: 30). On the contrary, specialized visuals such as graphical devices, which are typical of scientific language, have a highly eidetic potential, i.e., they are endowed with predetermined discipline-specific informational meanings, which are required for such visuals to be understood at all. While graphical visuals are monosemic, eidetic and stylised, and perform an informative and argumentative function, figurative visuals are polysemic, iconic and allusive, and have a persuasive and promotional function.



Figure 5. Figurative slide (Salama, 2014)

The proportions of figurative and linguistic slides within each PPT subcorpus can be further observed in Charts 1 and 2. Symmetric contexts display nearly the same amount of graphical and figurative slides, while the figurative *vs.* scriptural ratio is nearly 1:10 (see Chart 1). In asymmetric contexts, there are twice as many figurative than graphical slides, while the figurative *vs.* scriptural increases to approximately 1:2 (see Chart 2).

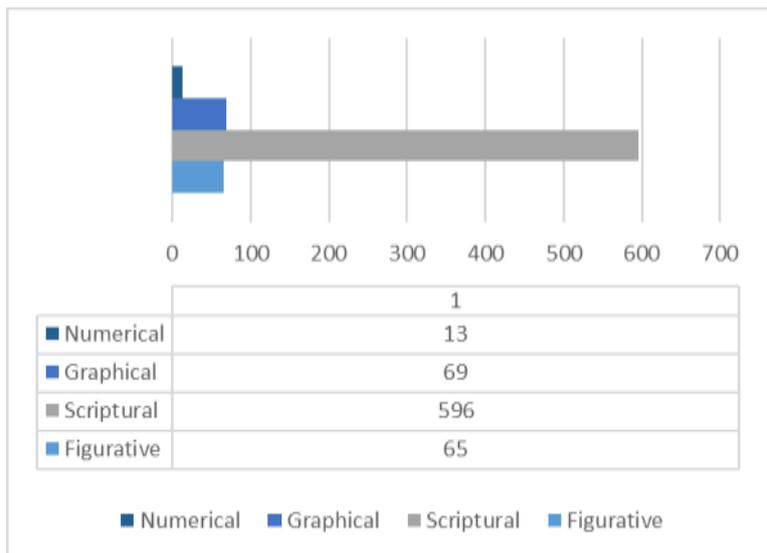


Chart 1. Semiotic modes in subcorpus 1

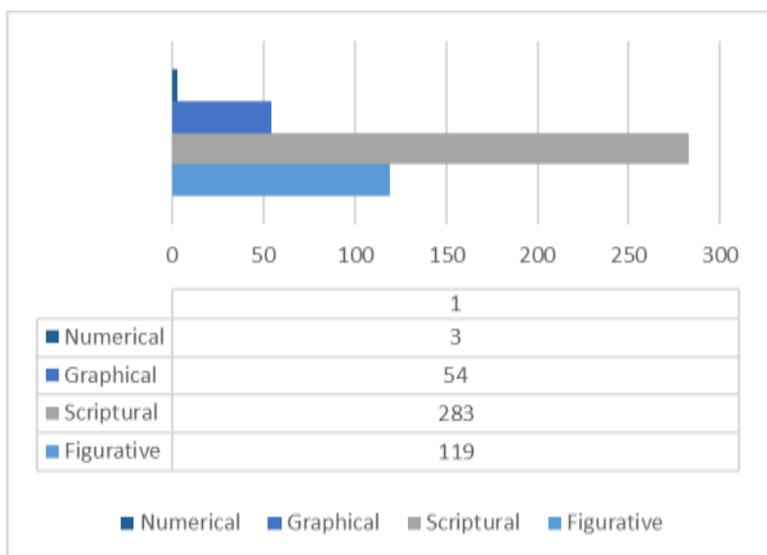


Chart 2. Semiotic modes in subcorpus 2

With respect to such tendencies, it can be observed that different pragmatic functions are associated with the discursive modes of the subcorpora (Sala 2008: 16). This appears to be a more convincing explanation than the alleged objectivity of verbal language *vs.* the subjective bias of visual language. Being targeted to the verbal literacy skills expected from academic staff, the PPT presentations in subcorpus 1 obey a predominantly informative and argumentative function, as can easily be expected in expert-to-expert

disciplinary communication, where “knowledge production is carried out and codified” in writing (Berkenkotter and Huckin 1995: 1). On the contrary, addressing the visual literacy skills of students, and being meant to elicit a psychological response from them as a trigger to better self-management strategies, the presentations in subcorpus 2 exploit the attractiveness of visual display and obey a persuasive and promotional function.

Both discursive modes – the verbal/argumentative and the visual/persuasive – are reflected in the rationale for PPT as a leading academic genre, in both research and instructional settings. On the one hand, in symmetric contexts, the cognitive architecture and impact of what is considered the most typical “conferencing product” (Campagna 2009: 387) is granted by the functional collaboration between verbal (i.e., running text) and visual discourse formulations (i.e., use of visuals, formatting devices, etc.; Virbel et al. 1999: 35). The synchronous visual-cum-verbal progression (Rowley-Jolivet 2000: 13) is as a matter of fact perceived and decoded as an integrated whole by the audience. Conversely, in asymmetric contexts, the multi-literacy stimuli offered by PPT can be said to be effective as concerns the transfer of contents from experts to learners: evidence from social and behavioural sciences (Kosslyn et al. 2012; Paoletti et al. 2012) shows that PPT’s conflation of lexico-syntactical and visual structures tends to be preferred by students over traditional media (such as blackboards or transparencies), in that it facilitates and strengthens information processing operations, to such an extent that students tend to tag themselves as “visual learners” (Amare 2006: 302). By stimulating the perception and retention of materials, PPT textuality both enhances students’ self-efficacy beliefs (Susskind 2005: 211) and boosts their motivation towards learning (Corbeil 2007; Ilter 2009; Lari 2014; Oommen 2012; Wang 2011). Interestingly, motivation seems to emerge from the investigated PPT corpus as a psycho-social outcome of multi-semiotic textuality.

IV.2. Interpersonal level

Table 3 provides a breakdown of the most recurrent metadiscursive resources to be found in the linguistic slides of both subcorpora, and meant to elicit engagement and commitment from the part of the audience embedded in PPT presentations. Data are presented in normalized figures (per 10,000 words). It can clearly be seen that there is a

much higher frequency of engagement markers in subcorpus 2 than in subcorpus 1 (542,86 vs. 325,97). Although, as shown in Table 2, subcorpus 2 has approximately half as many scriptural slides as subcorpus 1 (283 vs. 596), the average frequency of markers in scriptural slides is over twice as high in subcorpus 2 (45,23) than in subcorpus 1 (20,37). Motivational discourse addressing students seems in fact more in need of specific linguistic resources in order to signal the inclusion of readers as discourse participants, emphasising on the one hand commonality – as is the case of the inclusive pronouns *we, us, our, ourselves* – and on the other the individuality of each reader/viewer, who needs to be constantly made aware (by means of reader pronouns such as *you, your, yourself*) of being the presentation’s designed addressee and beneficiary.

Table 3. Engagement markers in PPT presentations (normalized frequency per 10,000 words): variations between subcorpora

PPT	No. ENGAGEMENT MARKERS	AVG.	READER PRONOUNS (<i>you, your, yourself</i>)	COMMUNITY PRONOUNS (<i>we, us, our, ourselves</i>)	QUESTIONS	IMPERATIVES	OBLIGATION MODALS (<i>should, must, have to, need to</i>)
SUBCORPUS 1: symmetric context (staff to staff)							
01	3,66	20,37	0	2,35	1,04	0	0,26
02	3,92		0,26	1,82	1,04	0	0,78
03	16,99		3,66	0,26	6,53	6,53	0
04	4,44		1,56	0,26	2,61	0	0
05	7,05		0,26	0	6,79	0	0
06	9,41		0,26	0	0,78	7,58	0,78
07	44,7		9,14	1,04	1,82	32,67	0
08	10,19		1,82	0,52	0,78	6,79	0,26
09	12,80		2,35	0	2,61	7,05	0,78
10	7,05		3,39	2,35	1,3	0	0
11	60,64		27,97	4,44	8,88	18,82	0,52
12	12,28		5,48	2,09	1,3	3,39	0
13	6,79		0,26	0	6,53	0	0
14	3,92		0	0	0	2,35	1,56
15	48,88		10,19	2,09	14,37	20,91	1,30
16	73,19		23	14,37	17,51	17,25	1,04
Tot. SUBCORPUS 1: 325,97			89,66	31,63	73,97	123,38	7,32

SUBCORPUS 2: asymmetric context (staff to students)							
17	28,27	45,23	8,87	0,55	10,53	8,31	0
18	49,35		28,27	1,66	13,3	5,5	0,55
19	37,7		15,52	0	2,21	18,85	1,1
20	12,75		6,65	2,21	3,88	0	0
21	75,41		19,4	1,66	23,28	23,84	7,2
22	42,69		28,83	3,88	1,66	8,31	0
23	21,62		9,42	1,1	1,1	9,98	0
24	28,27		18,29	0,55	0,55	7,76	1,1
25	29,38		16,63	0,55	7,76	4,43	0
26	29,38		13,3	1,1	7,76	7,2	0
27	8,87		7,2	0	1,66	0	0
28	8,87		2,21	0	0,55	5,5	0,55
29	32,16		14,41	2,77	3,88	9,98	1,1
30	63,76		34,93	13,86	5,5	8,87	0,55
31	14,97		6,09	1,1	6,65	1,1	0
32	59,33		13,3	3,32	12,19	25,5	4,99
Tot. SUBCORPUS 2: 542,86			243,43	34,38	102,58	145,28	17,19

The preferred interactional features in both subcorpora are reader pronouns and imperatives, albeit in inverted proportions. While imperatives are the most widely used category in subcorpus 1 (123,38), followed by reader pronouns (89,66), reader pronouns rank first in subcorpus 2 (243,43), followed by imperatives (145,28). The proportions within each subcorpus can be further observed in Charts 3 and 4. Symmetric contexts show a *you* vs. *we* ratio of 3:1, while the imperative vs. *you* ratio is approximately 4:3 (see Chart 3); in asymmetric contexts, the *you* vs. *we* ratio increases to 7:1, while the imperative vs. *you* ratio declines to 3:5 (see Chart 4). This seems to indicate that community pronouns, emphasising common knowledge or experience, or advocating team spirit (Vassileva 2002: 270), are a favourite interactional resource when motivation discourse is meant for academic staff, whereas reader pronouns, stressing individual worth and thus boosting individual effort, are a typical resource when students are being addressed.

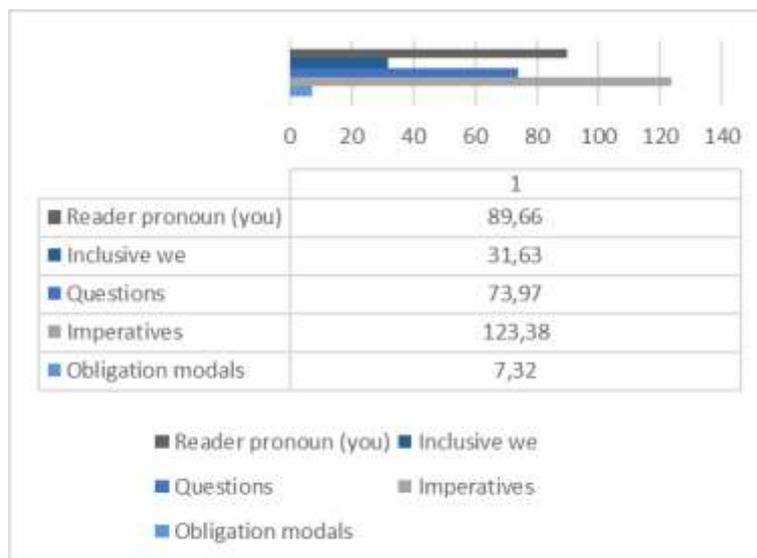


Chart 3. Engagement markers in subcorpus 1 (normalized frequency per 10,000 words)

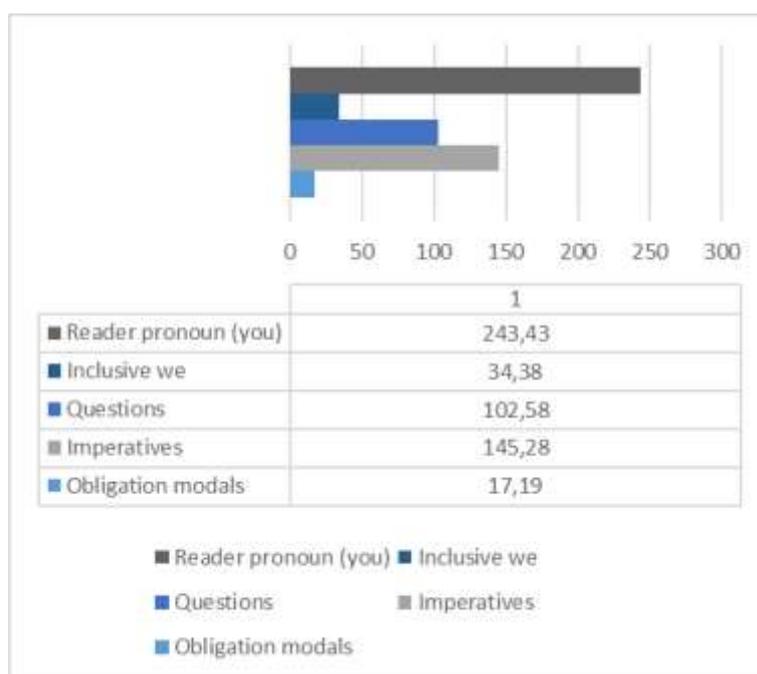


Chart 4. Engagement markers in subcorpus 2 (normalized frequency per 10,000 words)

The charts also reveal information about the third preferred resource for engagement in the PPT corpus, i.e., questions. While asymmetric contexts use way less than half as many questions as reader pronouns (102,58 vs. 243,43), in symmetric contexts the proportion significantly changes to approximately four interrogative structures every five reader pronouns (73,97 vs. 89,66). Questions are typical of PPT's conventionalized

cognitive style (Tufte 2003), and of PPT as an “open-for-discussion” tool (Webber 2002) for communicating state-of-the-art knowledge to an audience who is expected to react, either asking questions or producing comments. As can be seen in Figure 6 (Landis 2005, from subcorpus 1), the typical PPT slide follows an add-on, theme-rheme (or gap-filler) information sequence, eliciting the reader/viewer’s curiosity via the heading, and providing answers in the body text (usually organized through bullet points). If slides in general are organized in gap-filler slots, in the case of subcorpus 1 this seems to match the possible informational request of an expert audience, who, being engaged by a possible gap in their knowledge system, will probably look forward to developing new educational protocols. In the case of a student audience, instead, PPT’s argumentative structure tends to be perceived as facilitating the understanding and retention of instructional materials (Susskind 2005: 204). In both contexts, the use of interrogative structures can be said to function as an interactional booster of standard PPT gap-filler argumentative patterns.



Figure 6. Typical question slide (Landis 2005)

Overall, results on the interpersonal level seem to confirm that different engagement strategies are needed in different communicative situations. The behaviour of imperatives and questions in the subcorpora seems in particular to substantiate what was hypothesized at the ideational level (cf. IV.1 above). Metadiscursive resources

complement the verbal and argumentative tenor of subcorpus 1 with explanatory and normative features: as a matter of fact, symmetric presentations frequently anticipate and clarify possible cognitive gaps from the part of lecturers, as well as establish the do's and don'ts of motivating students. Questions and imperatives are not perceived here as Face Threatening Acts (Goffman 1967), for subcorpus 1 addresses a professional audience, expecting explicit instructions and caveats from PPTs. The visual and persuasive tenor of subcorpus 2, on the contrary, needs differently cogent interactional resources, for its purpose is to enthuse individuals to commit to volitional learning – which involves the massive use of reader pronouns and of figurative imagery (as shown in IV.1). Imperatives also frequently occur in subcorpus 2. Here, however, directives tend to be packaged in specific argumentative sections within each PPT presentation (as can be seen in Figure 7, Holmes 2013, from subcorpus 2), do's and don'ts sections which students may decide not to access in case they do not wish to take specific advice. Such strategic hedging of imperatives in subcorpus 2 contributes to dismantle the face-threatening potential of directives, while keeping the potential benefits of instructional discourse active

IV. CONCLUDING REMARKS

By bridging socio-visual semiotics and metadiscourse analysis, this study has investigated the ideational and interpersonal strategies structuring PPT as a resourceful genre for the implementation of motivation strategies in academic environments. Results from multimodal analysis have shown, on the ideational level, that the construction of informative meanings in PPTs hinges on the intersemiotic translation of different modes (Jakobson 1959: 233), i.e., the interaction and integration of the numerical, graphical, scriptural, and figurative mode. The coexistence of four semiotic systems, interacting with one another along the referential continuum and activating across different pragmatic purposes and communicative settings, construes PPT as an integration code among a plurality of literacy practices, combining and synergizing monosemic and polysemic systems of signification (Kress and Van Leeuwen 2001). A synoptic screen genre (Charles and Ventola 2002: 172), the PPT slideshow is characterized by a combination of multi-semiotic resources constituting a whole and

coherent communicative act (Degano 2012), both in research and pedagogical settings. Meaning-making processes are distributed, and constantly resemiotized (Iedema 2001), across all modes, accommodating flexible functional variation patterns, as evidenced by the contrastive analysis between the subcorpora. The flexibility with which each semiotic mode can modulate itself within the same communicative event suggests PPT as a hybrid “inscribed genre”, that is, a mainly (albeit not exclusively) written genre combining “language, image, and graphics in an integrated whole” (Van Leeuwen 2004: 10).

Such hybridity explains PPT’s efficacy in academic discourse, with respect to both informative and argumentative (Diani 2015) and persuasive and promotional functions (Busà 2010). In this respect, results on the ideational level seem to confirm – in line with (and in the light of) recent linguistic and psycho-pedagogical research (Bellés-Fortuño and Ollero 2015; Bellés-Calvera and Bellés-Fortuño 2018; Dörnyei 2001) – that PPT may positively influence students’ task-focused and social supportive behaviour. Both effects can impact the building of a unified image of self-confidence, and the optimisation of students’ study skills and general organisation. Motivation seems therefore to be an interestingly psycho-social and discursive phenomenon.

Results from metadiscourse analysis (and on the interpersonal level) have shown how motivational PPTs hinge on a typology of interactional markers – namely, reader and community pronouns, imperatives, and questions – whose function is to maximize engagement and commitment from the part of both teachers and learners. Engagement markers are the main linguistic manifestation of motivation discourse in the PPT corpus, and, as in the case of the abovementioned four semiotic modes, they also evidence functional variation patterns along different pragmatic purposes and communicative contexts. Interactional outcomes of motivation discourse can encompass a range of functions, from explanatory to normative to emotional ones, depending on the proportions among the various types of metadiscourse used in the subcorpora, and complementing the argumentative efficacy of PPT as a leading genre in academic contexts. The case of questions and imperatives seems in particular to highlight the high potential for dialogical communication, and for the eliciting of various degrees of commitment on the part of the reader, which is typical of PPT’s standard logical structure, usually built on gap-filler (or theme-theme) information sequences. Reader

and community pronouns also seem a typical resource of PPT as a hybrid “inscribed genre” (Van Leeuwen 2004: 10), whereby repeated appeals to individual readers and the pedagogical community – also crucial in the process of motivating both oneself and others – are accommodated by the multi-semiotic affordances of the genre.

In conclusion, this paper has aimed to suggest that the motivational impact of PPT in a constructivist academic environment can be found at both the ideational and the interpersonal level. It is distributed across four signification systems, stemming in different ways from the ideational expression of empirical experience offered by various types of visuals (such as, for instance, graphical devices and/or figurative imagery), as well as from the linguistic construction of dialogical roles between academic staff and students in the communication of experiential meanings (as is the case of metadiscourse markers). Multimodal literacy can therefore contribute, on the one hand, to the development of committed, autonomous and creative behaviour on the part of individual students, and, on the other, to the reinforcement of social processes of “communication and collaboration among students” as well as between students and teachers (Bellés-Calvera and Bellés-Fortuño 2018: 107). In the light of the above, potential implications of the present study may include extending the analysis to the third metafunction Systemic Functional Grammar metafunction (Halliday 2002, 2004). Researching PPT as a fully trifunctional language may help further research focus on the ways – also including “performative” aspects of PPT, such as kinesic and paralinguistic features (Van Leeuwen 2004: 10) – in which the trifunctional load is worked out among the different resources in the multi-semiotic mix.

REFERENCES

- Alley, M. and Neeley, K.A.** 2005. “Rethinking the design of presentation slides: A case for sentences headlines and visual evidence”. *Technical Communication*, 52 (4), 417-427.
- Amare, N.** 2006. “To slideware or not to slideware: Students’ experiences with Powerpoint vs. lecture”. *Journal of Technical Writing and Communication*, 36 (3), 297-308.

- Bellés-Calvera, L. and Bellés-Fortuño, B.** 2018. “Written Corrective Feedback with Online Tools in the Medicine Classroom: Bombay TV”. In López-García, C. and Manso, J. (Eds.), *Transforming Education for a Changing World*. Eindhoven, NL: Adaya Press, 106-199. 4 August 2018. <http://www.adayapress.com/wp-content/uploads/2017/07/CTED11.pdf>
- Bellés-Fortuño, B. and Ollero, N.** 2015. “Motivation: A key to success in the foreign language classroom? A case study on vocational training and higher education English courses”. DOI: <http://dx.doi.org/10.4995/HEAd15.2015.431>
- Berkenkotter, C. and Huckin, T.N.** 1995. *Genre Knowledge in Disciplinary Communication*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Bertin, J.** 1973. *Semiologie graphique: Les diagrammes, les réseaux, les cartes*. Engl. transl. *Semiology of Graphics: Diagrams, Networks, Maps*. Madison: University of Wisconsin Press.
- 2011. *Graphics and Graphic Information Processing*. Berlin: De Gruyter.
- Bhatia, V.J.** 2004. *Worlds of Written Discourse: A Genre-Based View*. London: Continuum.
- Blalock, M.G. and Montgomery, R.D.** 2005. “The effect of PowerPoint on student performance in principles of economics: An exploratory study”. *Journal for Economics Educators*, 5 (3), 1-7.
- Bucchi, M.** 1998. *Science and the Media: Alternative Routes in Scientific Communication*. New York: Routledge.
- Burke, L.A. and James, K.E.** 2008. “PowerPoint-based lectures in business education: An empirical investigation of student-perceived novelty and effectiveness”. *Business Communication Quarterly*, 71 (3), 277-296.
- Busà, M.G.** 2010. “Sounding natural: Improving oral presentation skills”. *Language Value*, 2 (1), 51-67.
- Campagna, S.** 2009. “Projecting Visual Reasoning in Research Conference Presentations”. In Gotti, M. (Ed.), *Commonality and Individuality in Academic Discourse*. Bern: Peter Lang, 371-392.

- Charles, C. and Ventola, E.** 2002. "A Multi-Semiotic Genre: The Conference Slide Show". In Ventola, E., Shalom, C. and Thompson, S. (Eds.), *The Language of Conferencing*. Bern: Peter Lang, 169-209.
- Clark, J.** 2008. "PowerPoint and pedagogy: Maintaining student interest in university lectures". *College Teaching*, 56 (1), 39-45.
- Clark, R.E.** 2003. "Fostering the work motivation of individuals and teams". *Performance Improvement*, 42 (3), 21-29.
- Corbeil, G.** 2007. "Can PowerPoint presentations effectively replace text-books and blackboards for teaching grammar?". *CALICO Journal*, 24 (3), 631-656.
- Diani, G.** 2015. "Visual Communication in Applied Linguistics Conference Presentations". In Crawford Camiciottoli, B. and Fortanet-Gómez, I. (Eds.) 2015. *Multimodal Analysis in Academic Settings: From Research to Teaching*. London: Routledge, 83-107.
- Dörnyei, Z.** 2001. *Motivational Strategies in the Language Classroom*. Cambridge: Cambridge University Press.
- Dörnyei, Z. and Schmidt, R. (Eds.)** 2001. *Motivation and Second Language Acquisition*. Honolulu, HI: University of Hawai'i, Second Language Teaching and Curriculum Center.
- Eccles, J.S. and Wigfield, A.** 2002. "Motivational beliefs, values, and goals". *Annual Review of Psychology*, 53, 109-132.
- Friendly, M.** 2009. "Milestones in the history of thematic cartography, statistical graphics, and data visualization". 2 February 2018. <http://www.datavis.ca/papers/gfkl.pdf>
- Goffman, E.** 1967. *Interaction Ritual: Essays on Face-to-Face Behaviour*. Chicago: Aldine.
- Gotti, M.** 2003. *Specialized Discourse*. Bern: Peter Lang.
- Greenbaum, S. and Quirk, R.** 1990/2008. *A Student's Grammar of the English Language*. London: Pearson.
- Halliday, M.A.K.** 2002. *On Grammar*. London: Continuum.

- 2004. *An Introduction to Functional Grammar*. Third edition. London: Hodder Arnold.
- Heino, A., Tervonen, E. and Tommola, J.** 2002. “Metadiscourse in Academic Conference Presentations”. In Ventola, E., Shalom, C. and Thompson, S. (Eds.) 2002. *The Language of Conferencing*. Bern: Peter Lang, 127-146.
- Holmes, S.** 2013. “Key strategies for student success: Insider information from the academically dismissed”. 2 February 2018. https://cdn.dal.ca/content/dam/dalhousie/pdf/management/Faculty%20%20Staff/Key%20Strategies%20for%20Student%20Success.pptx.lt_389309371cbf3e6e51b7890576be7761.res/Key%20Strategies%20for%20Student%20Success.pptx
- Hyland K.** 2005. *Metadiscourse: Exploring Interaction in Writing*. London: Continuum.
- Iedema, R.** 2001. Resemiotization. *Semiotica*, 137 (1-4), 23-39.
- Ilter, B.G.** 2009. “Effect of technology on motivation in EFL classrooms”. *Turkish Online Journal of Distance Education* 10 (4). 10 December 2017. <https://files.eric.ed.gov/fulltext/ED506782.pdf>
- Jakobson, R.** 1959. “On Linguistic Aspects of Translation”. In Brower, R.A. (Ed.), *On Translation*. Cambridge: Harvard University Press, 232-239.
- Jurado, J.V.** 2015. “A Multimodal Approach to Persuasion in Conference Presentations”. In Crawford Camiciottoli, B. and Fortanet-Gómez, I. (Ed.) 2015. *Multimodal Analysis in Academic Settings: From Research to Teaching*. London: Routledge, 108-130.
- Kaplan, S.** 2011. “Strategy and PowerPoint: An inquiry into the epistemic culture and machinery of strategy making”. *Organization Science*, 22 (2), 320-346.
- Knoblauch, H.** 2008. “The performance of knowledge: Pointing and knowledge in PowerPoint presentations”. *Cultural Sociology*, 2 (1), pp. 75-97.
- Kosslyn, S.M., Kievit, R.A., Russell, A.G. and Shepard, J.M.** 2012. “PowerPoint presentation flaws and failures: A psychological analysis”. *Frontiers in Psychology*, 3, 1-22.

- Kostelnick, C.** 1993. "Viewing Functional Pictures in Context". In Blyler, N.R. and Thralls, C. (Eds.) 1993. *Professional Communication: The Social Perspective*. London: Sage, 243-256.
- Kress, G.** 2003. *Literacy in the New Media Age*. London: Routledge.
- 2010. *Multimodality: A Social Semiotic Approach to Contemporary Communication*. London: Routledge.
- Kress, G. and Van Leeuwen, T.** 2001. *Multimodal Discourse: The Modes and Media of Contemporary Education*. London: Hodder.
- Landis, R.B.** 2005. "Motivating students to succeed". 2 February 2018. www.ecs.csun.edu/ecs/docs/motivate.ppt
- Lari, F.S.** 2014. "The impact of using PowerPoint presentations on students' learning and motivation in secondary schools". *Procedia*, 98, 1672-1677.
- Mertz, B.** 2013. "Motivating and developing others". 2 February 2018. https://accelerate.ucsf.edu/files/MDP_MertzMotivatingDevelopingOthers2015.ppt
- Muir-Herzig, R.G.** 2004. "Technology and its impact in the classroom". *Computers & Education*, 42, 111-131.
- Oommen, A.** 2012. "Teaching English as a global language in smart classrooms with PowerPoint presentations". *English Language Teaching*, 5 (12). 10 December 2017. <https://files.eric.ed.gov/fulltext/EJ1080100.pdf>
- Paoletti, G., Bortolotti, E. and Zanon, F.** 2012. "Effects of redundancy and paraphrasing in university lessons: Multitasking and cognitive load in written-spoken PowerPoint presentation". *International Journal of Digital Literacy and Digital Competence*, 3 (3), 1-11.
- Raffo, M.** 2016. "Translation and popularization: Medical research in the communicative continuum". *Meta*, 61, 163-175.
- Rowley-Jolivet, E.** 2000. "Image as text: Aspects of the shared visual language of scientific conference participants". *Asp*, 27-30, 133-154.

- 2002. “Visual discourse in scientific conference papers: A genre-based study”. *English for Specific Purposes*, 21 (1), 19-40.
- 2004. “Different visions, different visuals: A social-semiotic analysis of field-specific visual composition in scientific conference presentations”. *Visual Communication*, 3 (2), 145-175.
- Sala, M.** 2008. *Persuasion and Politeness in Academic Texts: An Introduction*. Bergamo: Celsb.
- Salama, R.** 2014. “Motivation towards teamwork”. 2 February 2018. www.pitt.edu/~super4/36011-37001/36041.ppt
- Soler, V.** 2007. “Writing titles in science: An exploratory study”. *English for Specific Purposes*, 26, 90-102.
- Stark, D. and Paravel, V.** 2008. “PowerPoint in public: Digital technologies and the new morphology of demonstration”. *Theory, Culture & Society*, 25 (5), 30-55.
- Susskind, J.E.** 2005. “PowerPoint’s power in the classroom: enhancing students’ self-efficacy and attitudes”. *Computers & Education*, 45, 203-215.
- Tardy, C.M.** 2005. “Expressions of disciplinarity and individuality in a multimodal genre”. *Computers and Composition*, 22 (3), 319-336.
- Tufte, E.R.** 2001. *The Visual Display of Quantitative Information*. Cheshire, CT: Graphics Press.
- 2003. *The Cognitive Style of PowerPoint*. Cheshire, CT: Graphics Press.
- Van Leeuwen, T.** 2004. “Ten Reasons Why Linguists Should Pay Attention to Visual Communication”. In LeVine, P. and Scollon, R. (Eds.) 2004. *Discourse and Technology: Multimodal Discourse Analysis*. Washington, DC: Georgetown University Press, 7-19.
- 2005. *Introducing Social Semiotics*. London: Routledge.
- Vassileva, I.** 2002. “Speaker-Audience Interaction: The Case of Bulgarians Presenting in English”. In Ventola, E., Shalom, C. and Thompson, S. (Eds.) 2002. *The Language of Conferencing*. Bern: Peter Lang, 255-276.

- Virbel, J. et al.** 1999. “A linguistic approach to some parameters of layout: A study of enumerations”. *AAAI Technical Report*, 4, 35-43.
- Wang, M.J.** 2011. “Using multimodal presentation software and peer group discussion in learning English as a second language”. *Journal of Educational Technology*, 27 (6), 907-923.
- Webber, P.** 2002. “The Paper is Now Open for Discussion”. In Ventola, E., Shalom, C. and Thompson, S. (Eds.) 2002. *The Language of Conferencing*. Bern: Peter Lang, 227-254.
- 2005. “Interactive features in medical conference monologue”. *English for Specific Purposes*, 24 (2), 157-181.
- Williams, G.** 2013. “Self-Determination Theory in Practice”. 2 February 2018. <http://chcr.umich.edu/materials/2013-05-13-williams.pptx>
- Williams, K.C. and Williams, C.C.** 2011. “Five key ingredients for improving student motivation”. *Research in Higher Education Journal*, 11, 1-23.
- Wood, R.** 2017. “The influence of teacher-student relationships and teacher feedback upon students’ engagement with learning”. 2 February 2018. <https://slideplayer.com/slide/12303558/>
- Wysocki, A.F.** 2003. “The Multiple Media of Texts: How Onscreen and Paper Texts Incorporate Words, Images, and Other Media”. In Bazerman, C. and Prior, P. (Eds.). *What Writing Does and How It Does It: An Introduction to Analysis of Text and Textual Practices*. Mahwah: Erlbaum and Associates, 123-163.
- 2007. “Seeing the Screen: Research into Visual and Digital Writing Practices”. In Bazerman, C. (Ed.), *Handbook of Research on Writing*. London: Routledge. 8 October 2017. <https://www.routledgehandbooks.com/doi/10.4324/9781410616470.ch37#ref37>
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PowerPoint presentations in the classroom: Re-evaluating the genre

Larissa D'Angelo
larissa.dangelo@unibg.it

Department of Foreign Languages, Literatures and Cultures
University of Bergamo, Italy

ABSTRACT

Since the late 1990s, Microsoft PowerPoint has become the expected presentation genre. However, several studies have demonstrated its many faults, such as the pre-formatted construction of discourse leading to the abuse of bullet point presentations, the limited format and size of slides that support minimum content and the ever-present risk of overwhelming viewers with too much text or data (Alley 2003, 2004, Robertshaw 2004, Gottlieb 1985, Keller 2003, Tufte 2003). Taking into consideration how the linguistic and visual elements, as well as the design and text organizations found in PowerPoint presentations have evolved in the last 20 years, the present paper analyses the negative effects that the default slide structure provided by Microsoft PPT, consisting of topic-subtopics and bullet points, has on the audience. The paper will then demonstrate the positive learning effects that the assertion evidence structure has on readers. The different retaining degree of three groups of undergraduate students are tested, after having exposed them to PPTs applying phrase headlines, phrase headlines and images or the assertion evidence structure.

Keywords: *PPT, PowerPoint, PowerPoint presentation, multimodality, multimodal genre, multimedia design*

I. INTRODUCTION

In today's academic world, PowerPoint presentations have become increasingly common not only in the hard sciences but also in the humanities, showing how the fast-paced, visually attractive data-driven presentations typical of marketing and business have invaded even the most traditional settings. As Tufte (2009) confirms, "slideware – computer programs for presentations – is everywhere: in business settings, in government bureaucracies, even in our schools and universities, where several hundred million copies of Microsoft PowerPoint are generating trillions of slides each year." Indeed, if the conventional method of presenting research results at conferences, workshops and even university lessons was to stand in front of an audience reading a paper, scribbling on lucid or writing formulas on a blackboard, today lectures have been

enriched with images, colour and sometimes even music and videos thanks to new, enhanced software. As Myers (2003: 3) recognises,

[...] anyone who walks around a university campus today will soon be aware that academic discourse is not just about words. There are colour-illustrated textbooks, videos, and interactive whiteboards boards in teaching sciences, materials and actions in labs, lectures and demonstrations, PowerPoint presentations in university lectures, web pages as support for teaching and publicity, and music signalling the scientific in television documentaries.

PowerPoint as a multimedia tool is used not within University walls but also by primary school teachers teaching K-12 grades (Martin and Carr, 2015). The software is the most utilized tool and is used daily to introduce new topics, explain concepts and presumably enhance lessons by integrating multimodal exercises (2015: 10-11). Among a number of multimedia software available, enabling them to create multimodal material for K-12 students, teachers still choose first and foremost PowerPoint, followed by Vimeo, Youtube, Camtasia, Animoto, Prezi and xtranormal (2015: 8). Why has this surplus of multimodal instruments invaded the academic world so strongly in the past few years? As Myers (2003: 3) states, science has always been multi-modal; historians have shown that it is our own textual bias that cuts out the elements of the visual and the performed from past scientific practice (Gross et al. 2002). But it could be that new technologies make it easier to carry non-verbal elements from medium to medium, and easier to interweave different modes.

The effects of technology on academic discourse are numerous and sometimes insidious, changing what were once 'traditional genres' such as the research article and the lecture into multimodal genres, requiring new preparation and delivery skills and a new approach to genre analysis. Myers (2000: 184) offers a particularly rich and illuminating discussion of the intersection of technology and genre in which he discusses the effects of PowerPoint on his own lecture preparation, delivery, and reception. After dealing with the more obvious consequences, such as the 'bulletization' of information, he goes on to write:

[...] the written text, produced by the machine, has become the star; I am reduced to an unseen voiceover of my own lectures. That may not matter in a business setting, where different people

from sales or personnel may be called upon to speak the same words. But for a university lecturer, it marks a shift in what Goffman (1981) called footing; that is, I am seen as the animator rather than the source of the utterance. Instead of my speaking with the aid of some visual device, the text is speaking with my aid.

Swales (2004: 7) reinforces Myers' account of technological impact by stating that certain multimodal genres, such as the PowerPoint, inevitably blur the boundaries between the academic and the commercial, and between the written and the visual.

Along the same lines, Rowley-Jolivet (2001) observes that the frequent use of photographs in Conference Presentations (hereinafter CP) reinforces the sense that these presentations often deal with early-stage, breaking-news research. Given the CP time pressures, the idea that "a picture is worth a thousand words" has clearly come to the fore (Swales 2004: 199). For this reason, visual presentation and graphics in conference PowerPoint presentations and handouts have become vital to outline a piece of work in a form that is easily assimilated and stimulates interest and discussion (Matthews 1990, Tufte 1990).

How has the genre of oral presentations evolved through the years and how is it that PowerPoint invaded university classrooms and conference venues? More importantly, how does PowerPoint's traditional format modify academic discourse? Long before today's presentation programs, such as Microsoft PowerPoint, OpenOffice.org, Impress or Apple iWork Keynote, presentations at companies such as IBM and in the military used bullet lists shown by overhead projectors. However, the format has become omnipresent as PowerPoint, which was created in 1984 and later acquired by Microsoft, spread around the world. This spoken/written genre has evolved together with technology and its popularity has raised several debates concerning its common practice use at conferences (Keller 2004, Parker 2001, Schwartz 2003).

Visual aids and computer presentations can enhance speaker credibility and persuasion, increase audience interest, focus audience attention, and aid retention of key points/content, although the exact opposite is also true when visual aids and computer presentations are used poorly by a speaker (Stoner 2009). In fact, presentation programs may help speakers organize their talks, but what is convenient for the speaker might be detrimental to both content and audience. The typical PowerPoint style suggested by the

program itself and the ready-made templates available to Microsoft users routinely disrupt, dominate, and trivialize content, elevating format over content and betraying an attitude of commercialism (Tufte 2009).

Since the 1980s, Gottlieb (1984) and others (Alley 2003, Atkinson 2005, Doumont 2005, Gaudelli et al. 2009, Keedy 1982) have rejected phrase headlines, responsible for unclear main assertions and lack of connections in the evidence, and have advocated the assertion-evidence structure, which features a sentence-assertion headline supported by visual evidence (see Figure 1).

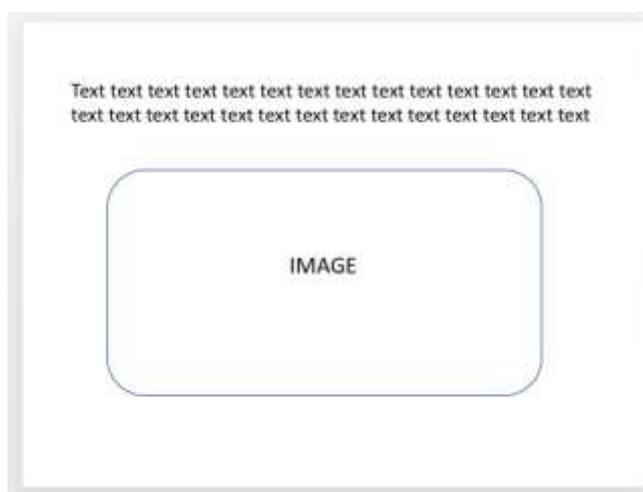


Figure 1. PPT slide employing the assertion-evidence structure.

How does the assertion-evidence structure work? When a presentation slide appears before the audience, the audience immediately turns to it and tries to decipher its contents and purpose. The assertion-evidence structure helps the audience quickly understand and retain the contents of a slide by providing a sentence headline, which orients the audience to the purpose of the slide; the audience can then turn its attention back to the presenter. Once the presenter has made clear what the main message of the slide is, the presenter should support that assertion primarily with images and with words where needed. The reasoning for this guideline is that images, if well-conceived, can communicate information much more quickly to the audience than blocks of text can.

Using a sentence headline is not the norm in scientific presentations (Alley and Robertshaw 2004). In fact, because thousands of presentations typically use phrase headlines (or no headlines at all), the assertion-evidence structure goes against what is most often seen and recommended. Phrase headlines in presentation slides in fact, should be avoided because they seem to reduce the personal connections between the presenter and audience, thus disturbing the flow of information and reducing the persuasive force of the message.

Because presentation slides reduce the personal connections between the presenter and audience, presenters have to be critical thinkers about the reader-oriented strategies employed and, most of all, when this academic genre is appropriate and when it is not (Alley 2003).

Taking into consideration how the linguistic and visual elements, as well as the design and text organizations found in PowerPoint presentations have evolved in the last 20 years, the present paper analyses the negative effects that the default slide structure provided by Microsoft PPT, consisting of topic-subtopics and bullet points, has on the audience. On the other hand, the paper will demonstrate the positive learning effects that the assertion evidence structure has on readers. More specifically, the different retaining degree of three groups of undergraduate students will be tested, after having exposed them to PPTs applying phrase headlines, phrase headlines and images or the assertion evidence structure.

II. METHODOLOGY

Two main methods for presenting data will be taken into consideration and analysed hereafter: on the one hand the standard method for presenting information through the projection of data in bullet-style and/or graphical formats i.e. phrase headlines, on the other hand the assertion-evidence structure, which is gradually gaining acceptance in the hard sciences.

To ascertain the positive or negative effects of these two different types of PPT formats on the audience and on the university student population in particular, three groups of undergraduate students attending the University of Bergamo between October 2015 and December 2017 have been selected and exposed to the same subject matter, which was

however presented in different forms (see Table 1). The first group, counting 58 students, served as the control group and was exposed to a 30-hour module, entitled 'The language of written advertisements in English', which took place in the first semester of the academic year 2015/16 and was addressed to first year students enrolled in the Intercultural Communication for Co-operation and Business undergraduate degree programme. The control group was exposed to lessons utilizing PPT presentations, which employed "bullet style" phrases, interspersed with graphs and chunks of text. The second group counted 45 students enrolled in the same undergraduate degree programme and exposed to the same 30-hour module, which took place the following academic year, although in this case, relevant illustrations were added to text-only presentation materials. The third group counted 62 students, enrolled in the same degree programme as the previous two groups of students and attending the same course, although the 30-hour module took place, in this case, in the first semester of the academic year 2017/18. The latter batch of students was exposed to carefully re-designed slides organized according to the assertion-evidence structure (Figure 1).

Table 1. Tests conducted and group characteristics

Group	Semester	Academic Year	Number of students	Number of course hours	Material used
1	1 st	2015/2016	58	30	Topic-subtopic slide design, "bullet style" phrases with graphs and chunks of text
2	2 nd	2016/2017	45	30	Topic-subtopic slide design, "bullet style" phrases with graphs, chunks of text and illustrations
3	1 st	2017/2018	62	30	PPT slides following the assertion-evidence structure

All the students selected for the research had an attendance rate of at least 90%, had all studied English for at least five years before the beginning of the course, and reached a certified B1 level of English. All students were administered the same multiple-choice test on the last day of the course and were given 30 minutes to complete the task. Students were administered the test without notice so as to measure the retention of the

material to which they had been exposed over the previous 3 months, without preparation.

The test featured 20 questions focusing on the content of the course and 5 different answers were provided for each question. The results obtained by the second and third group were compared with the results obtained by the control group and the relevant statistics were drawn, demonstrating the positive effects of adding relevant images to PPT slides and using the assertion-evidence structure.

III. RESULTS

The investigation described in this section relies heavily on the generative theory of multimedia design (Mayer 2001). This theory is based on the view of learning as knowledge construction, the idea that learner's actively build mental representations based on what is presented and what they already know. It therefore advocates that materials that facilitate selection, organization, and integration of to-be-learned information are of benefit in designed instruction.

The following hypotheses have been tested on three groups of non-native undergraduate students, following a 30-hour module in English:

1. By simply adding relevant illustrations to text-only presentation materials, retention increases;
2. People comprehend and retain better without extraneous information (learning material must be simplified, removing everything that isn't directly related to the discussion).

As Table 2 shows, the first group of students, which served as the control group for the research, scored an average of 68% on the final test. These students were exposed to learning material which consisted mainly in PPT slides employing "bullet style" phrases, interspersed with graphs and chunks of text. A limited number of images were shown in PPT slides and numerous references were instead made to the textbook adopted for the course.

Table 2. Retention increase with different PPT layouts

Group	Material provided	Average score on test (%)	Retention increase (%)
1 (control group)	Mainly text-only PPT slides	68%	-
2	PPT slides with text and images	87%	+19%
3	PPT slides displaying the assertion-evidence structure.	94%	+26%

The second group of students was exposed to the same PPT slides, to which relevant images were added. Unlike the learning material provided to the previous group, in this case, almost every slide included at least one picture relevant to the subject matter. At the end of the course these students scored 87% on the test given, demonstrating that just by adding relevant illustrations to text-only presentations, retention increased by 19%.

The third group of students were exposed to carefully re-designed PPT slides, employing the assertion evidence structure. Learning material was simplified, removing everything that was not directly related to the discussion and a sentence headline was used, followed by a clear picture or simplified graph, reinforcing and/or complementing the information given in the headline. Sentence headlines were no longer than two lines so as to avoid heavy chunks of text and the total number of slides provided was less numerous, so that in certain instances information was conveyed only orally and relied on the rhetorical capabilities of the presenter. The students belonging to this group scored an average of 94% on the final test, showing that the use of the assertion-evidence structure increased retention by 26%.

This last finding provides a powerful incentive not only to re-design and re-think the layout of university course materials, but also to implement the assertion-evidence principle whenever a transfer of knowledge is required as in academic meetings, conferences and workshops. It is also a strong incentive to avoid including graphics or multimedia effects simply for the sake of including them and to incorporate only the graphics that closely relate to the content, removing all extraneous, distracting details (Sommers 2008).

IV. DISCUSSING THE ASSERTION-EVIDENCE STRUCTURE: SWIMMING AGAINST THE CURRENT

As introduced in the previous sections, since the late 1990s, Microsoft PowerPoint has become the expected presentation genre, because it is the most commonly pre-installed software in PCs and Macs alike. The software developed from a culture of slides within business, government, and military organizations, with the latter particularly fond of bullet phrases in documentation, long before the introduction of electronic presentations. In particular, PowerPoint was introduced when the form of communication began requiring interaction in different forms both horizontally and vertically within an organization (Pece 2005).

In corporate history, DuPont has been one of the first users of charts and graphs to be viewed in a special chart-viewing room. This practice was widely copied and what was “uniquely DuPont” (Orlikowski and Yates 1994) – use of graphs as visual aids – became more widespread. By the second half of the 20th century, visual aids became the norm and the pre-processed ‘bullet style’ presentation of information became the standard rhetorical construction employed in academic and non-academic settings.

The shift from carefully crafted lucid presentations and expensive 35 mm slides to ready-to-use and widely accessible PPT slides has revolutionized and standardised rhetoric, deconstructing the art of oratory within University walls (Keller 2004, Parker 2001, Myers 2000, Tufte 2003). Its design forces users to follow a pre-formatted construction of discourse, encouraging an abuse of bullet point presentations; the format and size of slides do not support much content and tables as well as graphs, if presented through a PPT slide, hold very little information and the risk of overwhelming viewers with too much text or data is ever-present (Alley and Robertshaw 2004, Keller 2003, Tufte 2003). If these negative aspects were not enough, Tufte (2003) has correctly underlined that the biggest fault of the software is its tendency to “dilute thought” (2003:6), encouraging a “generic, superficial, simplistic thinking” (2003: 5). Although it simplifies the presenter’s task of delivering oral discourse because of its bullet point style, its design limits and slows down the flow of information; simply reinforcing what is being said, thus rendering this tool inadequate to for complex, non-linear issues.

Another fault lies in the quick loss of audience attention because listeners are led to shift their attention from the speaker to the screen, quickly tuning out the presenter and concentrating solely on the text. If slides utilize fonts that are not easy to read or they overwhelm readers with too much text, the ultimate outcome is that viewers, who have stopped listening, eventually stop reading too, losing all interest in the presentation because the material shown was not able to trigger an emotional response.

There are however recent studies that present and promote alternative uses of the software, so that it can be correctly utilized in an educational setting. For example, Lai, Tsai and Yu (2011) propose a Two-Layer display of information on screens to avoid overloading students with information. Kumar's (2013) study supports the position described above, indicating that students preferred PowerPoint over blackboard-based lectures, because the "inherent deficiency of each method is compensated by the other. While blackboard teaching is deficient in showing three dimensional diagrams, animated videos, and sounds; the same can be demonstrated using a PowerPoint presentation" (p. 240).

A solution to this dilemma is provided by the assertion-evidence structure utilized with group 3 in the present study. This structure proposes the use of full sentences instead of phrase sentences, which are typically fragments of phrases and do not help viewers comprehend immediately what is being shown in the slide and, most of all, do not favour retention of the subject matter. Alley and Robertshaw (2004) suggest placing the sentence headline in the upper-left corner of the slide, so that the audience sees the headline before anything else on the slide and to favour a quick retention, it should be no more than two lines long and justified left.

Several good reasons exist for using sentence headlines. One is that a sentence headline forces the presenter to come to rehearse and carefully select the assertions he or she is making (Alley 2003, 2004, Alley and Robertshaw 2004, Gottlieb 1985). The presenter is in a better position to select the best evidence to support those assertions because s/he has clearly established what the assertions of the presentation are when s/he wrote the easily-readable headlines to display on the slides. A second reason is that using sentence headlines makes the set of slides stand-alone better as a set of notes. For instance, if a slide simply had the headline "Results," it would not be nearly as helpful to the

audience two weeks later when viewed as part of a set of notes. The 'Results' slide displaying a short headline, summarizing the main results is much more effective and useful once notes are re-read at home.

A third reason for the value of sentence headlines is that presentations using sentence headlines tend to have significantly fewer slides (Alley and Robertshaw 2004), thus reducing the frenetic pace that weakens so many presentations. The reason for the reduction in the number of slides is that if the presenter cannot write a sentence for the slide that states its assertion, the design calls for the elimination of the slide (Alley 2003, Gottlieb 1985).

Once the presenter has established what the main concept of the slide is with the sentence headline, he or she supports that concept primarily with images and with words (where needed). Images, if well-conceived, can in fact communicate information much more quickly to the audience than blocks of text. If a block of text must be included in a slide, it should be no longer than two lines, including the headline, because audiences are much more likely to read blocks of text with one or two lines than longer blocks.

Because audiences are more likely to remember lists of twos, threes, and fours than lists of fives, sixes, or sevens, lists with more than four items should be avoided. Moreover, when a long list is presented, the audience sees the length, perhaps reads the first couple of items, and then tends to give up on the remaining items. When a long list must necessarily be included in a slide, presenters should then place only the four most important items from that list onto the slide and reserve the less important items for the speech (Alley and Robertshaw 2004).

Another useful technique that comes with the use of the assertion-evidence structure is to be generous in the use of white space, because it prevents a slide from seeming overcrowded (Hill 2004). White space not only allows the audience to separate the items in the slide's body, but also helps viewers find a logical order in which to view them.

Presenting something following a non-standard PPT layout requires a deep understanding of the subject matter as bullet point prompts are no longer available. Therefore, the assertion-evidence structure demands a much greater preparation by the

presenter than a standard PPT presentation, besides the difficulty of applying changes to the typography and layout of slides. However, as the previous section demonstrated, the results of applying this new design are well worth the effort.

IV. CONCLUSIONS

The present research has highlighted the potentialities of presentation software such as Microsoft PPT, as well as the numerous criticisms this genre has collected in recent years. PPT slides have become the standard format to present ideas and transfer knowledge not only in governmental and business settings, but within the academy as well.

In the humanities, PPT presentations have spread incredibly fast and have become the norm not only in classrooms but also in academic conferences and seminars. Viewers have come to expect (and respect) what has been defined as 'group wall reading', often not realizing that PPT slides are not always the best vehicle of information and can easily become a medium, which hinders communication instead of facilitating it.

There are numerous faults inherent to the software, such as the fact that very little information can be conveyed on each slide, limiting content to a series of bulleted lists and fragmented sentences. Microsoft automatically suggests a standard form of presentation, rich in special effects that can be visually appealing but also unnecessarily distracting. All these elements allow slides to dominate over the speaker and instead of being a means to enrich messages, slides become the message itself. The dominance of projected slides over the speaker often means that presenters forego an important opportunity to connect with the audience and in many cases the message is lost because of a lack of clarity, overwhelming information or simply a lack of interest.

Given the numerous drawbacks this software has, why should academics still use it? Because, as the results of this research have demonstrated, despite its potentially dangerous features, a PPT – if well used – can become a tremendously effective communication tool. Because of its multimodal nature, it is capable of combining text, but also images, graphs, movies and music. If slides are properly reorganized, redundant text and disturbing special effects eliminated, and images are added to complement the message, a PPT can become an excellent medium of communication.

In order to achieve this aim, a presenter must necessarily regain confidence in his/her oratorical skills, allowing slides to simply enrich and accompany what the presenter has to say, instead of dominating the presentation with redundant text, lists and graphs, which are bound to be read aloud, sadly distancing the presenter from the audience.

Making a transition from the now ‘traditional’ slide format, to a format such as the assertion evidence structure, is not an easy and requires substantial work, a deep knowledge of the subject matter and most of all, enough confidence to ‘navigate solo’, not using the software as a mere prompter but as an accompanying and enriching tool.

REFERENCES

- Alley, M.** 2003. *The Craft of Scientific Presentations*. New York: Springer-Verlag.
- Alley, M. and Robertshaw, H.** 2004. *Rethinking the Design of Presentation Slides: The Importance of Writing Sentence Headlines*. ASME IMECE (Anaheim, CA: ASME, 2004), paper 61827.
- Atkinson, C.** 2005. *Beyond Bullet Points: How to Use Microsoft PowerPoint to Create Presentations That Inform, Motivate, and Inspire*. Redmond, WA: Microsoft Press.
- Atkinson, C.** 2009. “The Problem with PowerPoint”. *BBC NEWS*. 19 August 2009. http://news.bbc.co.uk/go/pr/fr//2/hi/uk_news/magazine/8207849.stm
- Doumont, J.** 2005. “The Cognitive Style of PowerPoint: Not All Slides Are Evil”. *Technical Communication*, 52(1), 64-70.
- Gaudelli A., Alley M., Garner, J. and Zappe S.** 2009. “Common use of PowerPoint versus the Assertion-Evidence Structure: A cognitive psychology perspective”. *Technical Communication* 56, 331-345.
- Goffman, E.** 1981. *Forms of Talk*. Oxford: Basil Blackwell.
- Gordon, S.** 2001. *Really Bad PowerPoint (and how to avoid it)*. 25 August 2009. <http://www.sethgodin.com/freeprize/reallybad-1.pdf>

- Gottlieb, L.** 1984. "New-Breed Presentationists Sometimes Closely Collaborate on Presentations". *Proceedings of the 1984 Professional Communication Society Conference of the IEEE*. Atlantic City, NJ: IEEE.
- Gottlieb, L.** 1985. *Well Organized Ideas Fight Audience Confusion*. Livermore, CA: Lawrence Livermore National Laboratory.
- Gross A., Harmon J. and Reidy M.** 2002. *Communicating Science: The Scientific Article from the 17th Century to the Present*. Oxford: Oxford University Press.
- Hill, J.** 2004. "The Writing on the Wall". *Presentations* (March 31, 2004).
- Keedy, H.** 1982. *PRO Visuals Can Improve Your Presentations*, Sixth Annual Practical Conference on Communication Proceedings (Knoxville, TN: University of Tennessee, October 22-23, 1982), 13-34.
- Keller, J. Y.** 2004. "Is PowerPoint the Devil?". *Chicago Tribune* (23 January 2004).
- Kumar, M. P.** 2013. "Preferences of undergraduate medical students: Electronic and non-electronic teaching methods in pathology". *International Journal of Research in Health Sciences*, 1, 239–241.
- Lai Y., Tsai H. and Yu P.** (2011). "Screen-Capturing System with Two-Layer Display for PowerPoint Presentation to Enhance Classroom Education". *Educational Technology & Society*, 14(3), 69-81.
- Martin F., and Carr M. L.** 2015. "An Exploratory Study on K-12 Teachers' Use of Technology and Multimedia in the Classroom". *Journal of Educational Technology*, 12(1), 7-14.
- Matthews, D. L.** 1990. "The Scientific Poster: Guidelines for Effective Visual Communication". *Technical Communication* 37(3), 225–232.
- Mayer, E. R.** 2001. *Multimedia Learning*. Cambridge: Cambridge University Press.
- Myers, G.** 2000. "Powerpoints: Technology, Lectures, and Changing Genres". In Trosborg, A. (ed.) *Analysing Professional Genres*. Amsterdam: John Benjamins Publishing Company.
- Myers, G.** 2003. "Words, Pictures and Facts in Academic Discourse". *Iberica*, 6, 3-13.

- Orlikowski J. W., and Yates J.** (Eds.), “Genre Repertoire: Examining the Structuring of Communicative Practices in Organizations”. *Administrative Science Quarterly*, 39, 541-574.
- Parker, I.** 2001. “Absolute PowerPoint”. *The New Yorker* (28 May 2001).
- Pece, S. G.** 2005. *The PowerPoint Society: The Influence of PowerPoint in the U.S. Government and Bureaucracy*. MA Thesis, Virginia State University.
- Rowley-Jolivet, E.** 2002. “Visual Discourse in Scientific Conference Papers: A Genre-based Study”. *English for Specific Purposes*, 21,19-40.
- Schwartz, J.** 2003. “The Level of Discourse Continues to Slide”. *The New York Times* (28 September 2003).
- Sommers, A.** 2008. *Tips for Designing Persuasive Slide Presentations*. 07 June 2018. <http://www.businessperform.com/articles/training-practice/slide-presentation-design-tips.html>
- Stoner, G. M.** 2009. *Effectively Communicating with Visual Aids*. 10 July 2018. mattstoner.net/presentations/effective_visuals.pdf
- Swales, J.** 2004. *Research Genres. Explorations and Applications*. Cambridge: Cambridge University Press.
- Tufte, E.** 1990. *Envisioning Information*. Cheshire: Graphics Press LLC.
- Tufte, E.** 2003. *The Cognitive Style of Power Point*. Cheshire: Graphics Press LLC.
- Tufte, E.** 2009. “Power Point is Evil”. *Wired* (November 2009).

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Listening with your eyes: multimodal approaches to art appreciation in primary school

Ruth Breeze
rbreeze@unav.es

Instituto Cultura y Sociedad, Universidad de Navarra, Spain

ABSTRACT

Fine arts offer opportunities for multimodal approaches in education. Museums and galleries are now aware of their social role, and provide outreach activities designed to bring an understanding of art to a wider public. Their websites offer educational material for school children, showing how artistic knowledge and sensitivity can be cultivated with young age groups. However, little attention has been paid to such didactic material by discourse analysts interested in multimodality. This paper builds on Swales's (2016) article on the genre of the single image account (SIA), which centres on texts about famous paintings written by experts for a general readership. Here, I focus on SIAs for didactic purposes, examining pedagogical resources on the National Gallery's website. Accessible SIAs are combined with suggestions to enhance primary school pupils' learning through creative activities across a variety of modes. Guidelines are provided for writing SIAs for educational purposes in other contexts.

Keywords: *primary education, art education, multimodality, genre analysis, discourse analysis, single image analysis*

I. INTRODUCTION

Over the last thirty years, the role of museums and art galleries in many countries has been transformed, so that we can now talk of their key role in bringing culture to wider audiences and promoting lifelong learning. As far as children are concerned, it is clear that museums and galleries have a special function as educational spaces outside the classroom that offer a rich learning environment (Arbués and Naval 2014). With this in mind, leading art galleries around the world have developed an increasingly diverse range of educational and outreach activities designed to bring the works they house to a larger public, and to promote a deeper understanding of art among different target groups (Tishman et al. 2007). As a result, many art galleries have devised educational programmes of activities for children of different ages, including hands-on workshops (Brooklyn Museum 2018), special guided tours for different target groups, or invitations to respond in visual form to the works of art on display (National Gallery 2018). Outside the English-speaking world such adaptations were generally less common,

possibly for budgetary reasons, but there are signs that this is changing (Fontal Merillas 2009). Most national and regional governments now acknowledge that investment in national heritage is an important goal, and within this, that it is important to promote an understanding of this legacy among the younger generation. For this reason, it is useful to look at the educational strategies adopted in countries like the USA and the UK, which have a longer tradition of bringing culture to a wider audience. This may help institutions in other countries to develop resources along similar lines, either by adapting them for use in local languages, or by devising activities and materials in English for an international audience, or for local schools involved in Content and Language Integrated Learning (Breeze and García Laborda 2016). One of the simplest and least expensive educational strategies to emulate and implement is the preparation of material based on specific artists or individual works of art, adjusted for different age groups. Such material can be used by schools to prepare their visits, or as an aid when studying a particular topic. If it is appropriately adapted to the age groups in question, it can help children learn to experience and appreciate art (Harris and Zucker 2016), and might also act as a stimulus for creative responses of different kinds, thus involving the principle of learning-by-doing (Martikainen 2017).

One such resource is provided in the National Gallery, London, as part of its ongoing educational outreach programme (National Gallery 2018). It consists of sets of notes for primary school teachers, each of which has an explanation of one painting, accompanied by other information (such as background details about the artist's life, his patrons, or the subjects of the painting), and in most cases, ideas for educational activities designed to help children respond to the painting, or encourage them to develop their own creative skills. These resources are linked to the "Take one picture" project that the Gallery has carried out for many years in collaboration with primary schools. Each year, a particular picture from the National Gallery is chosen, and the Gallery provides educational material and short courses for teachers about it. At the end of each season, the Gallery hosts an exhibition showing some of the work that schoolchildren have produced in response to the painting chosen. This programme has several advantages for our present purposes: the National Gallery provides a considerable volume of material designed specifically for primary school teachers, this is always focused on a single work of art, and it is expressly intended to be used by the teachers both to

develop their pupils' appreciation of art and to foster their creativity. In this paper, my aim is to explore how these "Notes for Teachers" materialise these aims discursively, and to relate this to the bibliography on art education and museum pedagogy, in the hope that it will be interesting for theorists, but also useful for those involved in art education elsewhere.

In this paper, my main approach is discourse analytical, informed by genre theory. Genres serve typical socially recognised communicative purposes, and are in some sense conventionalised (Bhatia 2004). Genres provide a window onto professional practices, and onto the values and epistemology of particular disciplinary communities. By finding out what is stable, or at least frequent, in particular genres, we can learn more about the community that produced them, how they think and how they communicate. Within this, in the concrete case at hand, it is striking that from the perspective of applied linguistics, relatively little attention has been paid to the area of educational and popularising discourses about the visual arts. Despite the intense interest in multimodality and text-image interplay that has developed over the last thirty years (Bateman 2014), most work in the educational field has centred on how picture books create meaning through convergent or complementary semiotic modes (Nicolajeva and Scott 2001, Salisbury and Styles 2012), or how textbooks, infographics or websites exploit intermodal effects (Unsworth 2006). Little research is available that explicitly deals with the way the written mode deals with the visual one, or how language is used to talk *about* (rather than with or *alongside*) pictures.

One honourable exception to this is Swales's ground-breaking paper "Configuring image and context: writing 'about' pictures" (2016), which examines one-page accounts of single masterpieces intended for educated adult readers. In this paper, I build on Swales's analysis in two ways: first, by examining texts about art written for primary school teachers, in the knowledge that they are likely to incorporate aspects that may help these readers to arouse children's interest in art; and second, by looking at the practical suggestions available alongside most of these texts, which propose classroom activities and project work to stimulate children's creativity in a variety of media. I will then use this analysis to build a heuristic that could be useful for anyone who needs to write popular educational material to accompany works of art.

II. THEORETICAL BACKGROUND

Works of art in museums and galleries are almost invariably accompanied by written accounts, whether in the form of labels or brief explanations, or in longer formats such as press releases, exhibition catalogues, popular art books and critical analyses. To these, we must add websites and audioguides, which also provide abundant information in different modes. Within this, the single image analysis (SIA) provides a central focus for analysis, since this is a genre found across many of these different publications, and one which in some sense holds the key to art appreciation and education. As Swales (2016) notes, writing about pictures involves first “reading” the picture, and then sequencing the description of the image itself with discussion of any relevant aspects of the context (subject, artist, period, movement, etc.). Although the twofold aim of description and discussion might seem to lend itself to some kind of general-specific macrostructure (in this case, realised in terms of first context, then description), or perhaps a specific-general structure (starting from the image and moving to a commentary encompassing aspects of its background), this does not seem to be usual among art writers. As Swales (2016) shows, what seems to be typical is a kind of “dialectical tacking” (Geertz 1980: 103) between the image, on the one hand, and the background, on the other. Regarding move structure, Swales’s own analysis of the SIA identifies this zigzagging between image and background as perhaps the characteristic hallmark of art writing for a general public. In the alternation between image and context, most of Swales’s examples seemed to set out from the context, and then to intersperse description of the image with discussion of different aspects of background, but the amount of text dedicated to each, and the length of each “turn”, varied considerably from one text to another.

Beyond this, Swales also analyses five other features that he found to be typical of the SIAs in his corpus. These are:

- comparisons (with other works, or with other artists, styles or periods);
- a relative scarcity of intertextual references (i.e. to the writings of other critics or art historians);

- complex epistemic patterning, in which speculation is prominent and in which the writer offers “contested (or at least contestable) interpretations of the art objects as well as speculations about the artists and the factors that may have led to the production and construction of their works”;
- frequent use of brackets, to introduce information such as important dates, the whereabouts of paintings, and explanations of materials or techniques;
- positive evaluative language, used to bring out particular qualities of the painting or painter.

In this paper, I will use the general principles of genre analysis (Bhatia 2004, Swales 1990), and the previous work by Swales (2016) to build a description of the SIAs intended for primary school teachers. From the general principles of genre analysis (Swales 1990, Bhatia 2004), it would be expected that these texts will bear some kind of family resemblance to the SIAs analysed in Swales (2016), but that their slightly different communicative purpose will condition their content and structure in different ways. My analysis is complemented with an overview of the different types of activity proposed with a view to enhancing children’s experience of art. In the last section, I will provide a heuristic intended to guide writers who need to produce texts about art for educational purposes, based on my observations and analysis.

III. TEXTS AND METHOD

My study focuses on 25 sets of “Notes for Primary Teachers”, published in the “Teachers’ notes” section of the National Gallery website (National Gallery 2018). The Notes had all been prepared for the “Take one picture” scheme that has been running annually since 1995. Notes centring on an entire exhibition, rather than a single image, were excluded from this study. In each case, a single picture from the collection was selected, Notes were prepared, and schoolchildren from all over the country were invited to submit examples of how a class or year group used this particular painting to inspire creative learning. The children’s work was then exhibited by the Gallery in the popular “Take one picture” exhibition.

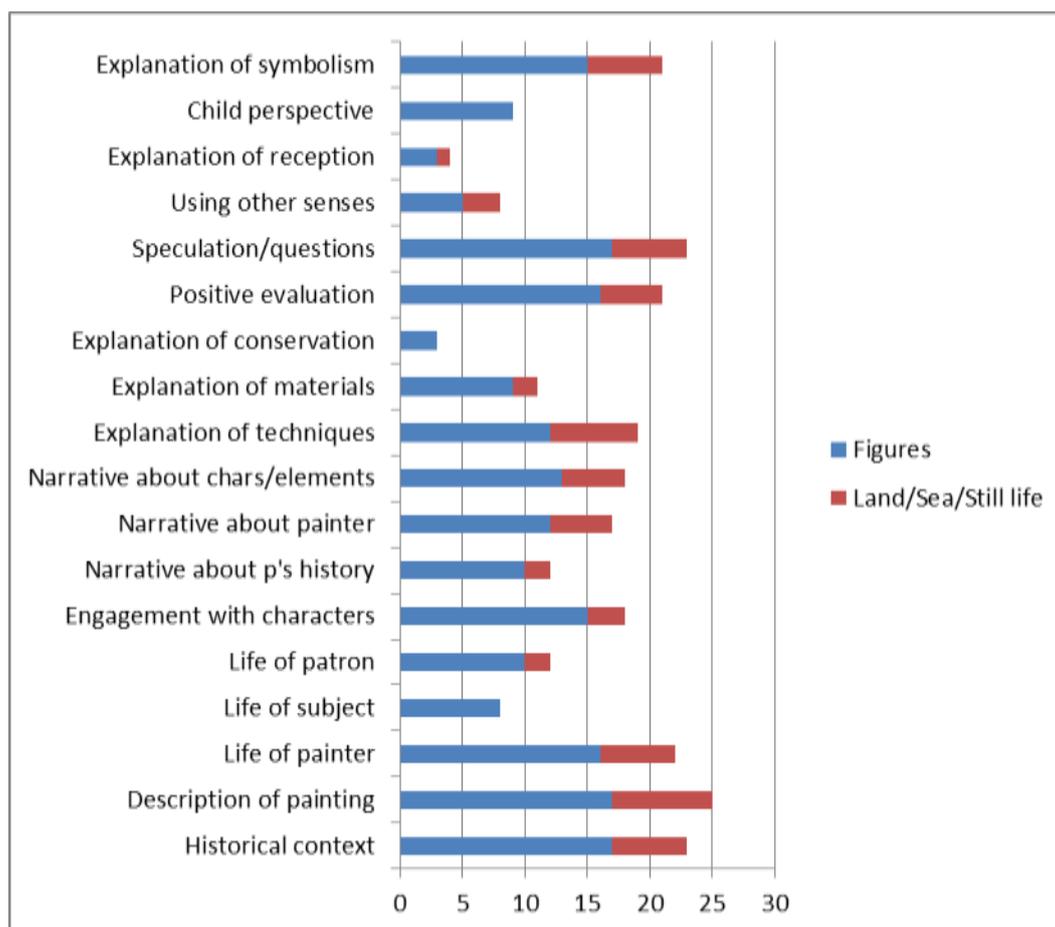
All of the Notes included in the present study focused on a single image, and 17 were principally pictures of human subjects, while there were five landscapes, two seascapes and one still life. The Notes were downloaded from the website and read carefully, in order to note structural organisation and any other features that they had in common. They were then re-read and coded, and illustrative examples of text selected for each of the main features identified.

IV. GENRE FEATURES

Each of the Notes consists of a SIA of variable length (generally around 2000 words, but sometimes much shorter), accompanied by the image of the painting itself, sometimes with one or two other images, such as close-up shots of details within the painting, or other paintings using a comparable technique or subject. After the main text, most of the Notes include a list of activities that could be used with primary school pupils, sometimes graded according to age or curricular objectives.

The text itself is often subdivided by means of headings such as “About the artist”, “About the painting”, “About the subject”. However, the Notes vary greatly: in some cases, the writer has preferred to include a single section with the title “About the painting”, while in others original headings are inserted, such as “Artistic licence” or “The end of an era”.

Although some of the aspects identified by Swales (2016) were also found here, certain features are prominent in the Notes that do not appear in his analysis. We might speculate that some of these, at least, are related to the fact that these texts are written for a specific target: primary school teachers who are going to use the picture with their class.



Graph 1. Features included in Notes on paintings of human figures (blue) and landscapes/seascapes/still-lives (red).

In what follows, I shall discuss some of the more prominent features identified in most of the Notes.

IV.1. Tacking between image and context

Like the SIAs analysed by Swales, these texts interweave descriptions of the painting with explanations about the personal, historical and artistic background. The following example from the notes about “The hay wain” by John Constable serve to illustrate this back-and-forth movement, which seems to take the reader skilfully in and out of the painting, emulating the way a guide might point to features of the picture and interlace these observations with explanations of different kinds. In the example, I have italicised references to the image:

(1) Before Constable was born his parents lived in the mill house and afterwards the family continued to live in the Suffolk countryside – *the setting for this painting*. Constable drew much of his initial inspiration for *scenes such as this one* from memories of the childhood he had spent in the area. *The wisps of smoke curling from the chimney of the house, and the woman beside it, drawing water from the river, give the scene a harmonious, domesticated atmosphere. In the background, in the yellow and green fields, dappled with sunlight, we can see (.....) The cloudy, wind-swept sky would seem to indicate the possibility of rain and certainly evokes the English summertime weather.* Constable actually made many of the cloud studies for this painting on Hampstead Heath in London. (Notes to Constable’s “The hay wain”)

This free-flowing approach to textual organisation is most pronounced in those sets of Notes which do not have internal subheadings. In others, where the text is subdivided into sections with titles like “About the painting”, “About the subject”, etc., the organisation is more constrained, but even here the tendency to zigzag is perceptible. For example, in the notes on Turner’s “The fighting Temeraire”, a section on background accomplishes seamless moves from context to image, as in the following example:

(2) The development of steam power was recognised at the time as enormously important, but as with any new technology, responses ranged from the wildly enthusiastic to the deeply pessimistic. These diverse reactions in a time of change *are reflected in The Fighting Temeraire, where Turner exaggerates the stark contrast between the two vessels, which stand for the old order and the new. As the sun sets on the horizon to the right, the new moon rises in the sky.* (Notes to Turner’s “The fighting Temeraire”)

As this example illustrates, the descriptions provided in the notes are rarely just descriptions, in the sense that they have a didactic purpose – to draw our attention to particular aspects of the painting and bring out their significance. When the writer tells us that the sun sets on the right as the new moon rises, he/she is not simply providing a routine description of the painting: he/she is drawing our attention to features that we might otherwise not have seen, and bringing out the relevance of these in the light of the background he/she has just explained. The written text largely follows the script of a guided tour, in which the guide/writer points to aspects of interest within the painting and relates these to external issues (themes, symbolism, artist, subject).

Sometimes, the description of the picture has to be more explicit than a guide would be, in terms of what goes where, as the text has to perform the role of the pointing finger to show where the points of interest lie, and also has to bring out the importance of visual aspects (such as colour or line) that might not need to be indicated so explicitly with an audience standing nearby:

(3) There is story-telling in the picture, but we notice the setting first: the early morning sky, the sun (...). Next we may take in the bustle of the port (...). We may have to look quite closely to spot the Queen. Claude helps us to do this through the composition of the picture. He leads our eyes to the group of people on the steps on the right: they are at an intersection of a line of perspective (the step) and the strong vertical of the far left column of the palace. The queen is marked out in the group by the bold colours of her clothes: a pinkish-red tunic, a royal blue cloak and a golden crown. (Notes to Claude's "Seaport with the embarkation of the Queen of Sheba"^{ib})

The "tacking" noted by Swales (2016: 25) can thus be related to the didactic function of teaching people how to look (Tishman et al. 2007: 61-62): as we follow the text, we can experience the process of slowing down, looking, pausing and looking again that is so important in the development of our powers of observation. As Fontal Merillas explains (2009: 84), one of the challenges in art education is to teach strategies to develop receptivity, to guide people so that they can feel their way into a work of art. The recursive describing and explaining encapsulated in the Notes is a textual representation of this expert process of pointing, sharing and bringing out the wealth of meaning within each picture for the novice observer.

As Graph 1 shows, the Notes also contained some other recurring themes. These are explained below, with examples where appropriate.

IV.2. Explanation of historical background

One feature which is prominent in the examples that Swales (2016) uses, but which he does not analyse in any depth, is the presentation of historical background. In the Notes, historical information is present in most cases, and tends to be pitched at a popular level, bringing out direct connections with the picture:

(4) The 1760s saw the beginning of the Industrial Revolution which went on to dramatically affect the lives of all British people. Wright produced many paintings of industrial environments with strong contrasts of light and shadow, such as blacksmiths' forges, glass blowing houses and blast furnaces. (Notes to Wright's "An experiment on a bird in the air pumpⁱⁱⁱ")

Background is also typically provided in the form of explanations of terminology used in the title or description of the picture:

(5) The parading figures in Rubens' composition depict a Roman 'triumph'. A triumphal procession was the greatest honour that could be given to a Roman general and was usually awarded to celebrate a great military campaign or victory. (Notes to Rubens' "A Roman triumph^{iv}")

In general, we can assume that the person writing the Notes assumes little knowledge on the part of the reader, or at least, that he/she wishes to make the information as clear, explicit and straightforward as possible for teachers who are going to use the painting with primary school children.

IV.3. Appeal to human interest

Perhaps with the primary school target audience in mind, the writers of the Notes often try to engage human interest in the people represented in the picture. This is represented in Graph 1 as engagement with characters, but also within the various types of narrative that appear in the Notes. Intuitively the appeal to human interest would seem to promote the forging of a personal connection, so that observers learn to relate more deeply to the image (Tishman et al. 2007: 64-65):

(6) The organ's sound presumably has inspired the caged bullfinch to sing, which in turn has provoked the predatory cat to leap hopefully up the back of the boy's chair. The two girls seem unaware of this small drama, while baby Thomas, rusk in hand, has eyes only for the cherries held out by his elder sister. (Notes to Hogarth's "The Graham children^v")

The Notes also encourage readers to take an interest in the artist and his life:

(7) In 1630, at the age of 53, Rubens married again. To everyone's surprise he did not marry into the nobility, but chose Helene Fourment, the 16-year-old daughter of a respectable merchant family. Rubens was clearly bowled over by his new wife with whom he has five children, and she figures in numerous portraits, including a version of 'The Judgement of Paris' in which she appears as Venus. (Notes to Rubens' "An autumn landscape with a view of Het Steen"^{vi})

Within the cultivation of human interest, the child perspective has a particular importance. This perspective appears in various ways, including the explanations of life in the painter's time:

(8) Boys would be apprenticed around the age of 14 and would need to train for some years. As well as learning to draw and paint they needed to master various practical and craft skills. Once trained, they could join the painters' guild and set up as independent masters with their own assistants and apprentices and hope to gain prestigious commissions. (Notes to Pintoricchio's "Penelope with the suitors"^{vii})

But the account of the people in the painting, if these are children, also tends to be a special focus of interest:

(9) The young girl on the right of the painting holds a hoop and stick. The hoop for such a toy might be made of metal or wood, and the object of the game was to keep the hoop upright while rolling it along the ground with the stick. Skilled players could do this for lengthy amounts of time and some performed tricks. (Notes to Renoir's "The umbrellas"^{viii})

(10) The painting has a jolly atmosphere with the three children making a lot of noise and enjoying themselves. And it's painted in a realistic way, so you can imagine being in this room with them, singing along and hearing their laughter. (Notes to Molenaer's "Two boys and a girl making music"^{xi})

IV.4. Use of embedded narrative

One aspect that is particularly prominent in these SIAs, presumably because of their didactic purpose and young wider audience, is narrative, which again can involve either telling the story depicted, or recounting incidents from the life of the painter, the commissioning of the painting, or its subsequent reception (see Human interest, above, and Graph 1).

(11) Odysseus is the figure coming through the door disguised by the Goddess Athena as an old beggar with his staff. On the wall above Penelope's head are his bow and quiver of arrows. Penelope sets up an archery contest saying she will marry the suitor who can string the bow and win the contest. No one is strong enough to string the bow except Odysseus himself. He reveals his identity and the couple are reunited. (Notes to Pintoricchio's "Penelope with the suitors")

This narrativising tendency also extends to the story of objects in the painting:

(12) This drinking-horn, made in 1565, still exists and is on show at the Amsterdam Museum in Amsterdam. It belonged to the Saint Sebastian Archers who were the likely patrons of the painting. On special occasions the officers would gather to feast and the horn would be filled with wine and ceremoniously passed among them. (Notes to Kalf's "Still life with the drinking horn of the St Sebastian's archers' guild, lobster and glasses^x")

However, it should also be noted that the Notes are intended for people working within a rather broad age range, which means that the narratives offered are not geared to a particular age group. It seems that the teachers in each case would be responsible for adapting the contents and language of the story to their students' level and interests.

IV. 5. Positive evaluative language

In his analysis, Swales (2016) pointed to evaluative language as one of the features that seems to be present in essence in SIAs, but which is subject to individual (or possibly cultural) variation. Here, since the writers are anonymous, it would be difficult to trace any cultural effects. There is certainly evaluative language in almost all the Notes, but it is administered very sparsely and soberly. Thus we are told that "The stonemason's yard" is "often regarded as Canaletto's masterpiece", while Turner is "one of Britain's best-known landscape painters".

A more interesting kind of evaluation tends to be delivered through the wording of the descriptions themselves: we read that Pintoricchio "cleverly gives us a sense of the whole narrative" by showing different episodes of Odysseus' story in the foreground and background, while Turner's sailing ship is "painted delicately in light tones" before a "glorious sunset". The focus of these SIAs is on observation and response to the image, but there are none of the "enthused evaluations" reported by Swales (2016: 32),

and objective observation is generally preferred to emotional evocations of aesthetic effects.

IV.6. Using the five senses

With the target audience in mind, some of the Notes draw on senses other than sight in order to suggest ways of presenting the picture. The most usual strategy is through the evocation of sound, as in example (10) cited above describing Molenaer's picture, or example (13) below:

(13) The picture is not only full of riotous colour and movement but also full of imaginable sounds: you can almost hear the growls of the animals; the horns and pipes being blown by musicians; the pounding of footsteps. (Notes to Rubens's "A Roman triumph")

Other senses are occasionally engaged in these SIAs, particularly touch, in the context of temperature:

(14) How cold is it? Cold enough for ice that is safe for skating – and for a large horse to walk on it! (Notes to Beerstraaten's "The castle of Muiden in winter^{xiii}")

But interestingly, multisensory response is encouraged in the activities listed at the end of the Notes much more frequently than it is used in the actual SIA (see Graph 1).

IV.7. Explanation of symbolism

A further didactic strategy that is prominent in these Notes is the special emphasis on explaining the symbolic aspects of many of the paintings. Some of these glosses are rather straightforward, like the following one, which boils down to "dogs can symbolise faithfulness":

(15) In art, dogs are often used to symbolise marital fidelity, so perhaps Veronese was making a comment by including them in his painting. (Notes to Veronese, "The family of Darius before Alexander^{xii}")

However, in other cases the writer attempts a more elaborate explanation involving several layers of meaning, including aspects of technological, social and cultural history that shed light on specific aspects of the painting:

(16) Black was an expensive dye at this time and was only worn by wealthy people: it also signified Melancholy and indicated that the wearer had introspective intellectual qualities, which were much admired at the time. (Notes to Holbein's "The ambassadors")

IV.8. Asking questions and speculating

As Graph 1 shows, one feature that many of the Notes have in common is their use of questions or speculative suggestions, which overlaps with what Swales (2016: 28-29) calls "contested interpretations". Although in his texts this function was frequently associated with epistemic elements, most particularly hedging and various hearsay/mindsay evidentials, in the Notes it is mainly represented by direct questions:

(17) Next to this jar stands an imposing figure robed in red, quite different to all the others present. With his hand outstretched towards us he is the only person to look out of the painting and make eye-contact with us. Is he asking us a question or perhaps inviting us to take a closer look? (Notes on Wright's "An experiment on a bird in the air pump")

In most cases, these questions have no answer, but sometimes an answer is proposed, usually an answer in line with the age of the prospective audience and their presumed response to the picture:

(18) Something, or somebody, has caught the attention of the little girl on the right, and the woman on the left. What, or whom, are they looking at? Perhaps they are looking at us? It is almost as if we are standing in the picture with them. (Notes on Renoir's "The umbrellas")

In a few cases, a more sophisticated analysis is presented, which seems to address the teachers rather than their (primary age) students. In this case, more complex hedging devices ("tend to believe") and uncertainty is stressed ("we cannot be sure") in order to spark curiosity:

(19) But which man in the painting is Alexander? (...) Art historians tend to believe that the man in crimson is Alexander, because he is more central to the composition, and is the more conspicuously dressed of the two, but we cannot be sure. The possibility of confusion is necessary if we are to understand the queen mother's mistake. Veronese has left us with a mystery, and after nearly 500 years, we are still not sure of the answer. (Notes to Veronese, "The family of Darius before Alexander")

IV.9. Explanation of symbolism

A further aspect that may be particularly prominent because of the educational function of these texts is their insistence on aspects of technique and material.

(20) Seurat had a special interest in optics and the science of colour, particularly the writings of the chemist Michel-Eugène Chevreul. (...) Chevreul stated that complementary colours, opposites on the colour wheel, enhanced each other when placed side-by-side. The use of complementary contrasts can be seen everywhere in the picture, from small brushstrokes to larger areas of colour. For example, in the predominantly green riverbank, there are strokes of the complementary colours pink and green, and also some bright yellow and violet, and orange and blue. (Notes to Seurat, "Bathers at Asnières"^{xiv})

This emphasis on topics such as primary colours here certainly reflects the primary school curriculum. However, other explanations of material and technique are more sophisticated. In the Notes on Wright's painting "An experiment on a bird in the air pump", the question of dark and light is emphasised, and brought into a wider art historical context:

(21) Wright used screens in his studio to control the light and here he has displayed a dazzling arrangement of light and deep shadow. The thin layers of dark glaze (paint mixed with varnish to give a translucent glow) are placed next to more thickly opaque highlights. Using extremes of light and shade in a painting to create a sense of drama is called *chiaroscuro* and is most usually associated with Caravaggio and his followers. (Notes to Wright's "An experiment on a bird in the air pump")

Moreover, the text goes on to explain that this is more frequently found in religious paintings of the era, and provides two images illustrating uses of *chiaroscuro* in other paintings to complement the reader's understanding of its function.

In other cases, the explanation deals with the concrete material basis of paint and canvas. Again, description is complemented by interpretation, in which the work of art in question is compared with other works or styles.

(22) The painting uses oil paint applied to paper. This gives it a smooth finish, with no surface texture. The three pieces of paper were stuck together, and the joins are quite visible, especially at the left. They were then mounted on canvas. This is an unconventional approach, but one which is typical of Degas. The three sections make it resemble both a triptych, a three-panel Christian altarpiece, and three-part Japanese woodblock prints. (Notes to Dégas's "Beach scene^{ix}")

Other Notes concerning technique bring out idiosyncratic aspects of the painting in question which might be interesting to a young audience, or which illustrate something significant about the material, technique or style of the picture:

(23) Also visible are lots of pentimenti. Literally meaning 'changes of minds', these alterations or corrections have become increasingly visible as the oil paints have become translucent with the passage of time. For example the lynx in the bottom right hand corner appears to have an extra leg and initially the young man in white had a larger head of hair. (Notes to Rubens's "A Roman triumph")

V. HEURISTIC FOR WRITING EDUCATIONAL SINGLE IMAGE ACCOUNTS

This section is intended as a guide for teachers or museum staff who need to create educational material for use with young children. In the following section (VI), there is a compilation of activity types that could be used to accompany the explanation of the work of art.

Imagine yourself standing in front of the picture, explaining it to a group of children:

- What overall impression does this picture make?
- How might children use the five senses to respond to this picture?
- What themes or aspects do you want to talk about in more detail?
- How are these themes or details associated with?:

- shared human feelings (particularly those accessible to children)
- narratives (myths, legends, historical events)
- symbols (conventional or original)
- Are the composition, techniques or materials used interesting?
- Do you want to talk about any relevant aspects of the painter's life?
- Are there any mysteries or unanswered questions associated with the painting, its subject or its artist?

When you are writing your SIA, remember that you need to use words to “point” to particular aspects of the painting that you want to discuss. You can use expressions like these to begin your description:

- As we can see in the image...
- As the picture shows...
- Scenes/figures/landscapes like this...

You can then relate these descriptions to background and context by using phrases like:

- These colours are associated with...
- This image evokes...
- The objects here symbolise...
- This type of figure is typical of the...

You can go back from discussing context to pointing out instantiations in the painting by using phrases like:

- ... is reflected/represented/echoed in the painting, where...
- ... can be seen in the composition of the picture, which...

Remember, you don't need to give definitive explanations about everything. It might be more interesting to open up discussion so that children can try to think of answers:

- What do you think this person is thinking?
- Why do you think the artist chose this colour/animal/background?

VI. SAMPLE ACTIVITIES

In this section, I provide an overview of different types of activities found in the Notes, without reference to specific paintings, age groups or curricular goals, and going from the more general response activities to the more complex or specific ones.

- Learning to look at the picture more carefully: working together in pairs, one pupil describes the picture and another draws, then they swap roles; using the website to create crops of the picture and then working together in groups to piece together the whole picture.
- Responding to the people in the painting on a personal level: what do you think the people are saying/thinking/feeling? If you could ask one of the people one question, what would it be?
- Multimodal response to the painting: ‘listen’ with your eyes, what can you hear? What is the noisiest thing in the painting? If you could jump into the painting, what would you see, hear, smell, touch? Who or what might live in there? What music would go with this painting? If the picture were an advertisement, what could you use it to advertise?
- Responding to the subject of the painting by reproducing one part of it, or drawing/painting something along similar lines, i.e. a full length painting of oneself with a classmate, a tableau of a scene from mythology, a group portrait, a skyscape, a “modern” still life, a representation of the same scene in a different season.
- Response to the subject, theme or mood of the painting by creating works in different media, including visual arts, i.e. sculpture and film, but also music or imaginative writing (stories, poems, descriptions).
- Using part of the picture as a basis for a design: i.e. the floor in the painting is made of patterned tiles, so design your own patterned tiles.

- Experimenting with materials used by artists in the past, e.g. egg tempera.
- Researching and responding to artistic styles: research the elements of Rococo style and design something inspired by it.
- Exploring connections with other curricular areas: find out the French words for the objects in the painting. Make a geographical enquiry into volcanoes. On a modern map, trace Odysseus's journey from Troy to the island of Ithaca. Investigate how other religions and culture participate in similar parades and celebrations today. Investigate dragon symbolism in other cultures.

VII. CONCLUSIONS

We have seen that these Notes share some of the basic features identified by Swales (2016), most particularly the characteristic zigzagging between image descriptions and context explanations. In this, it is interesting to think of the role of the writer as emulating that of the museum guide, but also as reflecting a stable tendency among art writers to oscillate between the visual and the verbal, or between showing and telling. In Baxendall's classic words (1979: 455), "one of the art historian's specific faculties is to find words to indicate the character of shapes, colours and organizations of them. But these words are not so much descriptive as demonstrative". Unlike other multimodal genres, where the different semiotic modes may generate convergent, complementary or divergent messages (Bateman 2014) and language-image interactions have to be decoded by users (Unsworth 2006), in this genre the written text is expressly dedicated to revealing and explicating the image. Here, the writer uses words explicitly to create a shared vision of the picture, and to guide the reader's eyes into and around the world within the frame.

Despite the underlying commonality that these Notes share with Swales's SIAs, certain new features are prominent here. We might speculate that some of these, at least, are related to the fact that these texts are written for a specific double target: primary school teachers (immediate readers) who are going to use the picture with their class (target audience). As Fontal Merillas explains (2009: 84), one of the challenges in art education is to facilitate the development of receptivity and artistic sensibility. Teachers therefore

need to deploy a range of strategies to encourage their pupils to share a sensation, feeling or idea, and thus to help them feel their way into a work of art (Harris and Zucker 2016). For this reason, aspects such as human interest (in the people represented in the picture, or in the artist and his life) are often highlighted in these SIAs, and narrative (again, telling the story depicted or incidents from the life of the painter) has an important role in many of the texts. In some of the Notes, multimodal responses based on hearing/smelling/feeling propose additional points of access to the painting, stimulating the imagination and encouraging children to experience the picture more fully (Harris and Zucker 2016). The Notes thus gently propose a series of pedagogical strategies for the teachers to use with their pupils. The activities suggested at the end of the Notes build on this by prompting multimodal responses of the kind recommended in recent art pedagogy (Martikainen 2017). Finally, one discursive feature that many of the notes have in common is their use of questions or speculative suggestions, which overlaps with what Swales calls “contested interpretations”, but which is generally expressed here through direct questions. Unlike the hedged speculations reported by Swales, these do not provide a glimpse of academic controversy, but rather convey a certain cognitive challenge which children may find stimulating.

Notes

- i “The fighting Temeraire”, by Joseph Turner.
- ii “Seaport with the embarkation of the Queen of Sheba”, by Claude Lorrain.
- iii “An experiment on a bird in the air pump”, by Joseph Wright.
- iv “A Roman triumph”, by Peter Paul Rubens.
- v “The Graham children”, by William Hogarth.
- vi “An autumn landscape with a view of Het Steen”, by Peter Paul Rubens.
- vii “Penelope with the suitors”, by Pintoricchio (Bernardino di Betto).
- viii “The umbrellas”, by Pierre-August Renoir.
- ix “Beach scene”, by Edgar Degas.
- x “Still life with the drinking horn of the St Sebastian’s archers’ guild, lobster and glasses”, by Willem Kalf.
- xi “Two boys and a girl making music”, by Jan Miense Molenaer.
- xii “The family of Darius before Alexander”, by Paolo Veronese.
- xiii “The castle of Muiden in winter”, by Jan Abrahamz Beerstraaten.
- xiv “Bathers at Asnières”, by Georges-Pierre Seurat,

All Notes are available on the webpage:

<https://www.nationalgallery.org.uk/learning/teachers-and-schools/teachers-notes>

REFERENCES

- Arbués, E. and Naval, C.** 2014. "Museums as educational social spaces". *Estudios sobre Educación*, 27, 133-151.
- Bateman, J.** 2014. *Text and image. A critical introduction to the visual/verbal divide*. London: Routledge.
- Baxendall, M.** 1979. "The language of art history". *New Literary History*, 10, 453-465.
- Bhatia, V. K.** 2004. *Worlds of written discourse*. London: Continuum.
- Breeze, R. and García Laborda, J.** 2016. "Issues in teacher education for bilingual schools". *Estudios sobre Educación*, 31, 9-12.
- Brooklyn Museum.** 2018. *Hands on art*. 19 March 2018. https://www.brooklynmuseum.org/education/youth-and-families/hands_on_art
- Fontal Merillas, O.** 2009. "Los museos de arte: un campo emergente de investigación e innovación para la enseñanza del arte". *Revista Electrónica Interuniversitaria para la Formación del Profesorado*, 12 (4), 75-88.
- Geertz, C.** 1980. *Negara. The theater state in nineteenth-century Bali*. Princeton, NJ: Princeton University Press.
- Harris, B. and Zucker, S.** 2016. "Making the absent present: the imperative of teaching art history". *Art History Pedagogy and Practice*, 1 (1). 19 March 2018. <http://academicworks.cuny.edu/ahpp/vol1/iss1/4>
- Martikainen, J.** 2017. "Making pictures as a method of teaching art history". *International Journal of Education and the Arts*, 18 (19). 19 March 2018. <http://www.ijea.org/v18n19/v18n19.pdf>
- National Gallery.** 2018. *Take one picture*. 19 March 2018. <https://www.nationalgallery.org.uk/learning/teachers-and-schools/take-one-picture>
- Nicolajeva, M. and Scott, C.** 2001. *How picturebooks work*. London: Routledge.
- Salisbury, M. and Styles, M.** 2012. *Children's picturebooks: the art of visual storytelling*. London: Lawrence King.

- Sears, E.** 2002. “‘Reading’ images”. In Sears, E. and T. K. Thomas (Eds.) *Reading medieval images*. Ann Arbor: University of Michigan Press, 1-17.
- Swales, J.** 1990. *Genre analysis. English in academic and research settings*. Cambridge: Cambridge University Press.
- Swales, J.** 2016. “Configuring image and context: writing ‘about’ pictures”. *English for Specific Purposes*, 41, 22-35.
- Swales, J. and Feak, C.** 2013. *Academic writing for graduate students*. Ann Arbor: University of Michigan Press.
- Tishman, S., McKinney, A. and Straughn, C.** 2007. *Study center learning: An investigation of the educational power and potential of the Harvard University Art Museums Study Center*. Boston MA: Harvard Project Zero.
- Unsworth, L.** 2006. “Towards a metalanguage for multiliteracies education: describing the meaning-making resources of language-image interaction”. *English Teaching Practice and Critique*, 5 (1), 55-76.

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Teacher's feedback vs. computer-generated feedback: A focus on articles

Tamara Hernández Puertas
tamaraeoi@gmail.com

Escuela Oficial de Idiomas (Castellón), Spain

ABSTRACT

As attested by a vast number of studies, in the process of second/foreign language acquisition feedback plays an important role as it may trigger learners' noticing of the mismatch between their interlanguage and the target language (Schmidt 1990). In foreign language classrooms, feedback on written production may not be properly provided due to a large number of students or time constraints (Chacón-Beltrán 2017). In this sense, the use of new technologies in the classroom may help both the teacher in the correction process and the student in his/her language development. In the present study we aim to compare feedback provided by the teacher and feedback provided by the software Grammar Checker (Lawley 2015). One group of English-as-a-foreign language (EFL) students received teacher's feedback on their mistakes on articles in their written production whereas a second group obtained feedback on the same grammar aspect by means of the above-mentioned software. The control group did not obtain feedback on their errors. Results show statistically significant differences in the last composition for the group who received teacher's feedback, although this feedback did not have a lasting effect in the tailor-made delayed test. In light of these findings, we may claim that the use of Grammar Checker as a potential tool for self-correction and feedback may facilitate students' language development, at least on the grammar aspect under analysis.

Keywords: *corrective feedback, teacher's feedback, computer-generated feedback, writing, articles, errors*

I. INTRODUCTION

Second language acquisition (SLA) is a complex process involving multiple variables along with natural elements such as errors, which should be regarded as part of the language learning process and not as something negative that has to be avoided. By means of errors, learners may test their hypotheses about how the target language works and teachers obtain information about learners' progress and difficulties in their development. Traditionally, teachers (and sometimes, peers) have provided correction in the formal context in various ways to help learners overcome their errors (both oral and written) and further their learning. The issue of whether mistakes should be corrected, when and how, among other questions, has fuelled much research, together with the elaboration of different typologies accounting for corrective feedback (CF) types,

ranging from most indirect to most direct. However, there seems to be some agreement on the fact that, although demanded by the learners, providing CF is a complex task to do. Corrective feedback for oral mistakes may be obtrusive and thus interrupt the flow of conversation. In turn, CF for written errors may take much of the teacher's time and sometimes it is only provided superficially.

Over the past two decades, there have been efforts to develop software which aids in the process of student writing along with some other software which provides a score on students' written production. The focus of this study is on the former, that is, we aim at contributing to the expanding body of research on computer-generated feedback in an attempt to examine whether this type of feedback has an impact on students' linguistic accuracy when compared to teacher's feedback. With this aim in mind, the software Grammar Checker was employed by one group of students as source of feedback on errors, whereas another group obtained teacher's feedback.

II. CORRECTIVE FEEDBACK AND SLA

Making mistakes is part of the natural process of learning a language. However, when producing output, students may not be aware of how successful they have been at conveying their messages if some kind of feedback is not offered. Corrective feedback becomes, then, a key factor in the SLA process since mere language exposure does not seem to be enough and second language (L2) speakers need some kind of corrective feedback to notice the discrepancies between their output and the L2.

The term corrective feedback (Lyster 1998) has adopted different terminology depending on the author: for example, 'negative evidence' (Long 1991), 'interactional feedback' (Lyster and Mori 2006) or 'negative feedback' (Ortega 2009). For the purposes of the present study, we will adhere to the definition provided by Russell and Spada (2006: 134): 'Corrective feedback will refer to any feedback, provided to a learner, from any source, that contains evidence of learner error of language form'. In this sense, corrective feedback refers to the teacher's reaction to a mistake, when this reaction causes attention to language forms and has a corrective aim. Much research has been carried out on CF, and most has employed different types of CF based on the learner's reaction (i.e., uptake). For instance, Ellis (2009) classified CF types along the

implicit-explicit dichotomy. Implicit feedback referred to recasts (i.e., reformulation of the learner's incorrect utterance minus the error), repetition and clarification requests, in which the learner has to work harder in order to spot the mistake and self-repair. In turn, explicit feedback included explicit corrections, metalinguistic explanations, elicitations and paralinguistic signals which showed in a more direct way that the learner's production was wrong.

Although the effectiveness of CF on acquisition is a debatable issue, it is regarded as an intervening element in the process of SLA. In fact, since the early 90s, a vast number of studies have demonstrated the beneficial role of CF on acquisition. Moreover, some meta-analyses and reviews of the literature (for example, Russell and Spada 2006, Spada 2011), point to the positive effects of CF for L2 grammar learning and its durability over time as long as it is noticeable, comprehensible and as individualized as possible.

II.1. The effect of corrective feedback on written production

In the current multimedia age, different modes of writing and image combine to make multimodal texts which communicate meanings and may be used for language learning. Images (including the use of colors) play an essential role in multimodal communication as attention-getters (Kress 2010), therefore maximizing the potential for learning. In this sense, a crucial condition for the effectiveness of CF is that the student notices the input features and the differences between his/her interlanguage and the target language forms. The notion of noticing was coined by Schmidt (1990) and supported by other researchers (e.g., Mackey et al. 2000, Philp 2003) as one of the crucial elements necessary for acquisition to take place, in the sense that noticing is essential for input to become intake. Intake has been defined by Ellis (1994: 708) as 'that portion of input that learners notice and therefore take into temporary memory'. Learners may notice input thanks to the CF provided to them in the language classroom. Indeed, research has shown that CF does occur in the classroom in a high proportion (e.g., Panova and Lyster 2002) as an intervening variable in the process of language learning. The benefits of CF in oral interaction point to learners' noticing of problematic forms, opportunities to modify output and test hypotheses, and an increase in linguistic

accuracy. Yet, the debate about the value of written corrective feedback (WCF, henceforth) has yielded conflicting results (Evans et al. 2010). For instance, in a much-cited study by Truscott (1996), he argued that ‘correction is not only unhelpful but even counterproductive’ (1996: 354). In the same vein, Polio et al. (1998) and Fazio (2001) stated that CF can be discouraging and ineffective to improve subsequent writings due to the pressure it may create on learners. However, broadly speaking, research has found a beneficial effect of CF on writing accuracy (e.g., Bitchener 2008, Lee 2013). More specifically, Bitchener and Ferris (2012) claim that students' accuracy improves when they attend to feedback as they draw their attention to linguistic inconsistencies or mistakes. Moreover, for ethical reasons, learners need to be provided with CF in their written production, even more when it has been shown that students want to improve their linguistic accuracy (Ferris and Hedgcock 2005) and that they expect to have their writing mistakes marked (Guénette 2007).

Feedback may be delivered in a more direct (explicit) or indirect (implicit) way. *Direct feedback* is offered when the teacher provides the correct form straight away and the student is supposed to incorporate that correction in the final version. Contrarily, in *indirect feedback* the teacher merely indicates in some way (underlining or highlighting the error, or marking in the margin of the text) that there is an error, without providing the correction. Thus, the student knows there is a mistake and he/she has to solve it. In this sense, some voices have claimed that indirect feedback is more desirable because it may engage students in problem solving and, eventually, in more progress in accuracy over time than direct feedback (Ferris et al. 2000). Different degrees of explicitness in feedback provision were examined in Ferris and Roberts' (2001) study: Group A had their errors underlined and coded, Group B had their errors underlined but not coded and Group C (control group) had no error markings. No statistically significant differences were reported between Group A and B, suggesting that more explicit feedback (underlining and coding of errors) was not more advantageous than simple underlining.

Some research has addressed the impact of different types of feedback on accuracy in student writing. Chandler (2003) had four treatments including (i) *Correction*, (ii) *Underlining with Description*, (iii) *Description of error only*, and (iv) *Underline*. Findings show that conditions (i) and (iv) resulted in more accurate pieces of writing in

the next assignment, whereas treatments (ii) and (iii), which involved a description of the error type, had the opposite effect. Overall, the number of studies which have addressed the effectiveness of direct and indirect WCF show inconclusive findings. However, there seems to be a wider consensus on the fact that if feedback is provided, learners' accuracy tends to improve when compared to control groups receiving no feedback, as reported by Ene and Upton's (2014) study.

II.2. Computer-generated feedback in writing

When to provide feedback has been one of the main concerns in the field of language correction and feedback. Warschauer (2010) claimed that autonomous learning and revision could be enhanced by promptly delivered feedback. Indeed, when little time lapses between the student's writing and the teacher's CF, learning opportunities may be maximized. In the same line, Guichon et al. (2012) argued that if learners can get 'just in time' feedback, they may self-correct almost immediately after their mistakes and possibly incorporate this feedback in subsequent writings. In this way, written CF may be more effective as in traditional classrooms feedback is only provided by the teacher several days after the written production.

As stated by Spada (2011), corrective feedback occurs both in natural learning contexts as well as in formal environments, although it is more frequent and presumably more beneficial and necessary in the latter. Yet, in large classes in which the students are required to perform written tasks, teachers need to lessen their workload by delegating work to their students, who may use electronic feedback to self-correct their written productions (Lee 2013). Therefore, more time could be devoted to other areas which need more attention in writing, such as content and organization (Chen and Cheng 2008). In this sense, and especially in the education domain, the importance of technology and the benefits it may provide to the learning process shows how it is taking over classrooms at all levels. The use of computer tools, what is called 'computer-assisted language learning' (CALL), applied to the classroom and the students' way of working represents an extra value and motivation. In fact, as Becker stated (1991: 385), 'in the 1980s, no single medium of instruction or object of instructional attention produced as much excitement in the conduct of elementary and

secondary education as did the computer.’ CALL is an approach that has many advantages: first, it adapts to the learning of the students letting them control their own pace, second, it allows them to be more autonomous since they are the ones who make their own choices, third, it offers them freedom and authenticity and finally, it develops their critical thinking. In this vein, computer-mediated feedback may contribute to help students write more independently both inside and outside the classroom. Moreover, research from Tiene and Luft (2001) suggests that the use of technology fosters individualized communication between teacher and students more often and allows teachers to focus on higher-order aspects of writing, leaving common grammar or spelling mistakes to the program.

As just stated, new technological implementations in the language classroom have influenced the skill of writing, especially the revision and editing processes by means of online tools. The interplay of range of modes on screen (for example, image and writing) has resulted in a redesign of how students can receive feedback. As Jewitt put it (2002: 172), ‘communication and learning are multimodal’. This multimodality may be significant for writing improvement. In this sense, in the past twenty years, software aiming at scoring and/or providing feedback on students’ writings has been devised (e.g., *Criterion*, *MyAccess*, *Grammarly*, *Summary Street*, to mention but a few), with diverse degree of effectiveness on students’ satisfaction (Chen and Cheng 2006). Still, some voices (e.g., Ware and Warschauer 2005) claim that the amount of time a teacher may spend correcting students’ compositions may be dramatically reduced if teachers can rely on computer-generated feedback. Moreover, software which generates feedback on writing has been created providing either reports on grammatical errors or more holistic assessment on aspects such as content or organization of the piece of writing. In the case of grammar checkers, Potter and Fuller (2008) reported an increase in students’ motivation, proficiency and confidence in grammar rules in the use of English grammar checkers. In turn, Nadasdi and Sinclair (2007) argued that the French online grammar checking program *BonPatron* was as effective as teacher correction. Also, Burston (2008) investigated the accuracy of this grammar checker showing that 88% of errors were spotted by the software. Mistakes were highlighted by means of color-coding: red indicated those grammatical aspects the student had to modify and orange was used to signal segments or words which needed to be verified.

Despite the a priori benefits of grammar checkers, they are not without limitations. As argued by Davis (1989), any user of grammar checkers has to set their perceived usefulness and ease of use, two key factors in Davis' Technology Acceptance Model (TAM) determining the likelihood of acceptance of new technology. A second drawback refers to the fact that sometimes computer-generated feedback may not be specific or informative enough to guide learners in their revision process, eventually causing frustration or dissatisfaction (Chen and Cheng 2006).

III. GRAMMAR CHECKER

In 2001 the Universidad Nacional de Educación a Distancia (UNED) in Madrid started to work on the software Grammar Checker (GC, henceforth) in an attempt to detect errors made by English-as-a-foreign-language students. It provides written feedback on grammar, spelling, and words used incorrectly based on a corpus of eighty million words 'taken from the written component of the British National Corpus' (Lawley 2015: 26). As explained by this author, the program divides the text into segments that are compared to that corpus and highlighted in red if they do not appear in it or have a threshold number lower than 0 and 0.1, in orange if they occur in the corpus fewer than 500 times and their threshold numbers range between 0.1 and 0.5, or yellow if they occur fewer than 75 times and their threshold numbers lie between 0.5 and 0.9. Therefore, this program requires cognitive process from students as it only uses certain colors to show frequency but does not offer the possibility to receive corrections at the click of a mouse. Students are responsible for changing the segment or not upon reflection. In this way, it offers the opportunity to learn from mistake. GC does not provide a score for the text, it merely alerts users to those combinations that are rare or do not occur.

GC works as follows: after creating an account, the student has to write the text and press "Enter your text" and then "Start" to check if there are any mistakes. First, spelling mistakes are highlighted in yellow (also purple if it is a very rare word but not necessarily a mistake, e.g., proper names) and by clicking on the words highlighted useful feedback is provided. By clicking on "Modify", the previous spelling mistakes can be corrected and checked again by pressing "Check again". Then the same

procedure is followed for the “Incorrect sequences filter” that highlights grammar mistakes such as ‘These table’, and for the “Problem words filter” which refers to correct English and does not highlight any word but suggests words that are usually misused by students, e.g., ‘insano’ (unhealthy). Therefore, if after reading the suggestions the student thinks he/she has made a mistake, he/she can modify it.

The most important step for the aims of the present study is the button “Pairs filters” which highlights phrases that do not usually occur, e.g., ‘had do’. In order to know the frequency with which those phrases occur and decide whether it is a mistake or not, the student can use the search engine at the top of the screen. Figure 1 below illustrates a screenshot of GC:

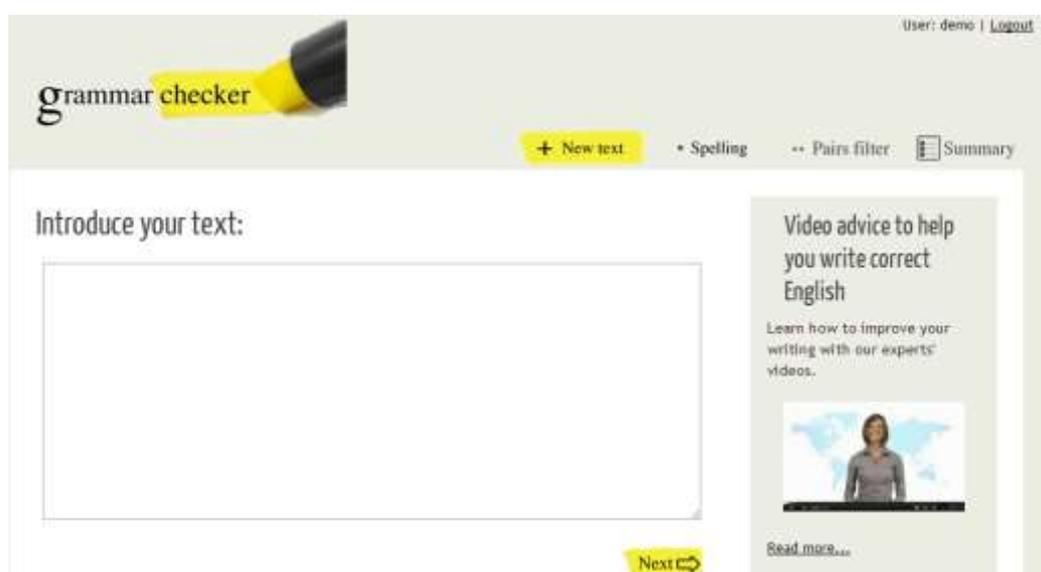


Figure 1. Screenshot of Grammar Checker.

GC was selected for the purposes of the present study for several reasons: firstly, it offers a cue (highlighting in colors) so that students can locate, reflect and self-correct, which, according to the literature, may be conducive to learning. Secondly, GC does not overwhelm language learners with metalinguistic terminology which may be at odds with some learners’ literacy (Dikli 2006). Thirdly, this software does not score learner’s written production, but provides them with feedback and possible suggestions for improvement. Finally, it is an affordable program for only €14 a year for students

aiming, in the present study, for level B2 of the Common European Framework of Reference of Languages (CEFR).

IV. THE STUDY

Prior to this research, a pilot study to test the use of GC was conducted with a group of students with a similar level of proficiency as the participants in the present study and also enrolled in an Official School of Languages. The purpose of that pilot study was, on the one hand, to test the computer program, and on the other hand, to decide important aspects such as the level and the number of students participating and the targeted grammatical aspects (articles, verb tenses and prepositions in this case). One group of students received teacher's feedback and another obtained feedback by means of GC. Analysis of the data collected in the pilot study revealed a higher number of corrections after computer feedback. Therefore, this program proved helpful in highlighting and correcting students' mistakes.

Taking into account previous research pointing at overall benefits of WCF in the development of students' writing accuracy on the one hand (Bitchener 2008, Russell and Spada 2006), and the rapid growth of computerized feedback in educational contexts on the other (Ene and Upton 2014), in this study we entertain two research questions. The first research question aims at revealing what type of feedback (teacher vs. computer) will have a better effect on accuracy in the targeted grammar aspect (articles). On the other hand, the second research question aims at showing what type of feedback (teacher vs. computer) will have a lasting effect in the delayed tailor-made test.

IV.1. Participants

Three groups of Spanish students (n=27) participated in the present study. They were divided into two treatment groups and the control group. All participants were studying at an Official School of Languages in order to pass the B2 level for professional reasons and reported having studied English for over 6 years. Their mother tongue was Spanish and/or Catalan and their ages ranged from 20 to 50 years old (mean=39.3).

The study was carried out as part of their formal EFL instruction and the compositions were regular assignments the students had to elaborate as part of their written homework.

IV.2. Targeted grammar aspect: articles

Errors on rule-governed forms allow for more focused correction than errors which are not rule-based (Lee 2013). Ferris (1999) termed the first type of errors ‘treatable errors’, as some grammar errors may be treatable through feedback. In this vein, articles fall under this ‘treatable’ category and for Spanish EFL students they may be a recurrent source of errors, especially the zero article. In fact, the English article system has been shown to be used inaccurately by foreign language learners, even with high proficiency. Despite the fact that article errors seldom cause misunderstanding, since they possess low communicative value, it is still necessary for learners to overcome their problems with this specific grammar form. On this account, Master (1995) pointed out that attention to the article system was important because this type of errors may leave the impression that the learners have incomplete control of the target language. Some years later, Bitchener (2008) also argued that EFL learners across different language proficiency levels experience difficulties in their mastery of the English article system. These perceived difficulties, along with the fact that articles are potentially ‘treatable’, were the reasons to have articles as targeted grammatical forms for examination.

IV.3. Types of feedback

Group 1 (n=11) received teacher’s feedback, Group 2 (n=8) computer feedback and the Control Group (n= 8) obtained no feedback on the targeted grammatical aspect.

Computer feedback was provided by Grammar Checker by means of a color code (red, orange and yellow) as explained in Section III. It was an indirect type of feedback which only signaled potentially problematic bits in the compositions. For comparability issues, teacher’s feedback had to be indirect as well, so she also used colors similar to the ones in the computer software to highlight the mistakes on articles.

IV.4. Data collection procedure

In a session prior to the data collection, participants belonging to Group 2 were trained in the use of *Grammar Checker* and they were explained what the color code meant and how they had to correct their mistakes. Afterwards, all participants were asked to write a 180/200-word composition based on a comic strip (*Abbey Time 1*). In strip 1 someone is writing a letter to an old woman, in strip 2 Abbey appears next to an Elvis-looking man, in strip 3 the man is holding some flowers and a teddy bear, in strip 4 a woman different from the old woman and physically similar to Abbey is looking at the man with a menacing gaze, in strip 5 Abbey looks sad and in strip 6 someone who seems to be Abbey is writing a letter. As mentioned above, Group 1 received teacher's feedback and Group 2 obtained computer feedback. The control group did not get any feedback on articles but on other non-targeted grammatical aspects. After this feedback, they rewrote a second version of the same comic strip (*Abbey Time 2*) to check whether correction had been effective. The time elapsed between Abbey 1 and teacher's feedback was one week, and between teacher's feedback and Abbey 2 also one week.

Two weeks after Abbey 2, participants composed a second text based again on a similar graphic prompt but with different strips (*Pam Time 1*). In strip 1 someone is writing a letter while the image of Pam appears in the background. In strip 2 an old woman is holding a sheet of paper, and in strip 3 the woman who looks like Pam is looking at the Elvis-looking man with a menacing gaze. In strip 4 the man is showing the woman a cake he has just made, in strip 5 the old woman looks happy and in strip 6 the old woman is writing a letter.

The same process as the one depicted above applied: after the first composition (*Pam Time 1*), feedback (either by the computer software or the teacher) was provided and students wrote a second version (*Pam Time 2*) after 2 weeks from the first version. Therefore, 4 compositions (*Abbey Time 1* and 2 and *Pam Time 1* and 2) are the data for analysis.

Six weeks after having written the last of the four compositions, the participants were asked to complete an individual tailor-made test (see a sample in Appendix 1) to check any long-term impact of the two types of feedback. The tailor-made tests included all the errors each student had made in *Abbey Time 2* and *Pam Time 2*, that is, after having

obtained feedback three times (either from the teacher or the computer). Table 1 illustrates the timeline for data collection.

Table 1. Timeline for the data collection procedure.

Week 1	Abbey T1
Week 2	Teacher's or computer feedback
Week 3	Abbey T2
Week 4	Teacher's or computer feedback
Week 5	Pam T1
Week 6	Teacher's or computer feedback
Week 7	Pam T2
Week 8	Teacher's or computer feedback
Week 14	Tailor-made test

All four compositions belonged to the same genre, that of narrative story, in which a short story is described. The learners had to describe what was happening in the story according to the given pictures. Therefore, as stated by Bitchener (2008), valid text comparisons can be made because both storylines were related and even seemed a continuation and had similar characters. For this reason, similar tenses, structures and vocabulary for both comic strips were expected.

IV.5. Results and discussion

A Kruskal-Wallisⁱ test was run to determine whether there existed significant differences in the two experimental groups and the control group taking into account errors on articles in Abbey Time 1, that is, in the first composition the learners had to write. As can be seen in Table 2, results show no significant differences, a fact that, from a methodological point of view, is desirable as it indicates that all groups made an equivalent number of errors ($p > 0.05$ in all three groups).

Table 2. Means and standard deviations for Abbey Time 1.

Group	Mean and standard deviation
Group 1: computer's feedback	.91 (2.07)

Group 2: teacher's feedback	1.13 (1.35)
Control group	.50 (.75)

As to the first research question, a first analysis was carried out to determine whether feedback had been useful when students had to write Abbey Time 2 and Pam Time 2 (i.e., when they had obtained feedback after Abbey Time 1 and Pam Time 1). With that aim in mind, a Wilcoxon signed-rank testⁱⁱ taking into account the number of errors on articles between Abbey Time 1 and 2, and between Pam Time 1 and 2 revealed only statistically significant differences between Pam 1 and 2 for the group who had been offered teacher's feedback (Group 1; $p=.026$). For Group 2 (computer group) and the Control Group, no significant differences were observed, as Table 3 depicts:

Table 3. Comparison between Time 1 and Time 2 in both compositions.

	Group 1 (teacher)	Group 2 (computer)	Control Group
	$Z_{(w)}$	$Z_{(w)}$	$Z_{(w)}$
Abbey Time 1 and 2	1.00	.00	.81
Pam Time 1 and 2	2.23	.68	.33

As stated above, only a significant decrease in the number of errors in the use of articles occurs between Pam 1 and 2 for Group 1. Although both treatment groups at the time of writing Pam 2 had received feedback three times, in light of our results teacher's feedback appears to be more effective as far as linguistic accuracy is concerned, despite the fact that this feedback was as indirect as the one provided by the computer. In view of the above results, the effect size was calculated (Cohen's d^{ii}). For Pam Time 1 and 2, the effect size was large ($d=1.024$), but the rest of effect sizes ranged from medium to small.

A second test was used (Wilcoxon signed-rank test) to examine the effect of feedback in Abbey and Pam at Time 2. Again, as shown in Table 4 below, the analysis reveals only statistically significant differences for Group 1, that is, it seems that teacher's feedback had a positive effect on reducing learners' errors on articles. One possible explanation for this finding is that learners tried harder to self-repair before giving their revised compositions back to their teacher. Maybe they were not so confident about computer's

feedback and might have felt skeptical about this source of feedback. Still, that is the only significant difference, since Group 2 and the CG did not show any significant difference in reducing the number of errors. Our results seem to align with Sauro's (2009) research on zero articles. Her two treatment groups received two types of computer feedback (recast and metalinguistic information). The indirect type of feedback (recast) in Sauro's study and highlighting in the present investigation do not seem to have an impact on learners' correction of their errors.

Table 4. Means and standard deviations for Abbey Time 1.

Abbey & Pam Time 2	Z _(w)	p
Group 1 (computer)	2.11	.035
Group 2 (teacher)	.37	.70
Control Group	.81	.41

In an overview of the grammar checker *Grammarly*, Cavaleri and Dianati (2016) report that 22% of their students agreed that the feedback provided on their writing was not always helpful, as some of the feedback made no sense for learners. Our participants may presumably have been in the same situation, finding the feedback too indirect.

As for the second research question, a Wilcoxon test was run. In Group 1, there were no statistically significant differences ($Z_{(w)} = 1.63$; $p = .10$; $d = .25$) between the errors students had made in Abbey Time 2 and Pam Time 2 and the tailor-made tests, showing a small effect (calculated with Cohen's d). The same pattern applies to the results for the computer group and the control group, as there were no significant differences between the mistakes in Time 2 in both compositions and the tailor-made tests ($Z_{(w)} = 1.63$; $p = .10$; $d = .14$) for Group 2 and ($Z_{(w)} = 1.89$; $p = .059$; $d = .40$) for the CG, again with a small to medium effect size.

Despite the fact that, as shown by the results of the first research question, there were significant differences in the number of errors after teacher's feedback, this applied only to immediate gains which were not maintained in the long term, as attested by the results for the second research question. Neither of the treatment groups showed gains in accuracy in the tailor-made post-tests. Again, one likely explanation for this result be

the fact that feedback was too indirect and the color codes were too vague and not showing the learners what to focus on in a more specific way. In this sense, multimodal combination of text and image (colors, in this case) did not seem to benefit the students' self-correction process. Although it has been claimed that learners may benefit more from indirect CF because they need to engage in deeper language processing (van Beuningen et al. 2008), CF which is too indirect may not reach the desired goals in the long run. Indeed, Chandler (2003) found that direct feedback resulted in largest accuracy gains, both in revisions of previous writings and in subsequent writing, whereas students who revised their compositions after indirect CF were unable to do so.

A second explanation points to the fact that the compositions learners had to write were not graded. As a result, their motivation could have been rather low along with the possibility that they might have got bored of writing four compositions which were very similar and demanded little creativity.

V. CONCLUSION

Many adult students may have to work autonomously on their language acquisition process. As shown by the findings of the present study, computer-assisted learning tools such as *Grammar Checker* may prove useful in that process, as 'everything that can be done to facilitate accurate self-correction is positive' (Lawley 2016: 879). Still, GC merely suggests potential problems by highlighting some written bits, thus leaving it up to students to solve the error. In this vein, computer-generated feedback may have resulted to be a difficult task for the students who received this type of feedback 'due to their learned dependence on teacher-provided feedback' (Peterson 2017: 48). Moreover, the effectiveness of computer-generated feedback to highlight aspects such as content or organization of writings is questionable as humans can assess writings more accurately than computers (Reiners et al. 2011).

The present study aimed at comparing the impact of teacher's and computer feedback on students' errors, as most errors are repeated among students, which makes the teacher correct the same error numerous times. In this sense, and despite the above-mentioned drawbacks of using technology for grammar correction, software such as

Grammar Checker could improve this situation, encouraging students to be more independent of the teacher and more responsible for their own learning. Benefits may apply both for the learners and the teacher.

Yet, taking into account the results of this study, we concur with Ware's (2011) claims that computer-generated feedback should be seen as a supplement to writing instruction and not as a replacement, since teacher's CF, although as indirect as the one delivered by GC, seemed to work better in reducing the number of errors in the short run. We adhere to Heift and Hegelheimer' (2017) recent claims that there is still scant evidence with regard to whether computer-generated feedback results in accuracy development and learning over time, pointing to a need of long-term research to determine these issues.

This piece of research was conducted in authentic classrooms as part of students' ordinary classes. In this sense, it represents a realistic picture of EFL instruction, which impacts on its ecological validity, even though some factors, such as students' commitment during the process may be a handicap. Therefore, as limitations to the study we can mention the small sample size, which poses questions of generalizability, and the fact that the feedback provided addressed errors on articles, that is, rule-governed forms which are more amenable to correction (Lee 2013). The extent to which other non-rule-governed aspects may benefit from the two types of CF has not been examined in the present study. Also, the type of indirect feedback offered (highlighting errors) may prove more useful for students at higher levels of proficiency. Perhaps the small impact of this kind of feedback in the present study may be due to the proficiency level of the participants, who could have felt at a loss because of their limited linguistic competence. Finally, a further limitation refers to the effectiveness of *Grammar Checker*, since it depends highly on the teacher and students' attitudes toward computer-based feedback and their technology-use skills in working with computer-based programs, because not all teachers and students may be equally skilled.

Notes

ⁱ Non-parametric test that compares independent sample of equal of different sample sizes.

ⁱⁱ Non-parametric test used to compare two related samples in this case

REFERENCES

- Becker, H. J.** 1991. "How computers are used in United States schools: Basic data from the 1989 IEA Computers in Education survey". *Journal of Educational Computing Research*, 7, 385-406.
- Bitchener, J.** 2008. "Evidence in support of written corrective feedback". *Journal of Second Language Writing*, 17 (2), 102-118.
- Bitchener, J. and Ferris, D. R.** 2012. *Written corrective feedback in second language acquisition and writing*. New York: Routledge.
- Burston, J.** 2008. "BonPatron: An online spelling, grammar, and expression checker". *Calico Journal*, 25 (2), 337-347.
- Cavaleri, M. and Dianati, S.** 2016. "You want me to check your grammar again? The usefulness of an online grammar checker as perceived by students". *Journal of Academic Language & Learning*, 10 (1), 223-236.
- Chacón-Beltrán, R.** 2017. "Free-form writing: computerized feedback for self-correction". *ELT Journal*, 71 (2), 141-149.
- Chandler, J.** 2003. "The efficacy of various kinds of error feedback for improvement in the accuracy and fluency of L2 student writing". *Journal of Second Language Writing*, 12, 267-296.
- Chen, C-F. and Cheng, W-Y.** 2006. *The use of computer-based writing program: facilitation of frustration?* Paper presented at the 23rd. International Conference on English Teaching and Learning in the Republic of China.
- Chen, C-F. and Cheng, W-Y.** 2008. "Beyond the design of automated writing evaluation: Pedagogical practices and perceived learning effectiveness in EFL writing classes". *Language Learning & Technology*, 12 (2), 94-112.
- Davis, F. D.** 1989. "Perceived usefulness, perceived ease of use, and user acceptance of information technology". *MIS Quarterly*, 13 (3), 319-339.
- Dikli, S.** 2006. "An overview of automated scoring of essays". *Journal of Technology, Learning, and Assessment*, 5 (1), 1-35.

- Ellis, R.** 1994. *The Study of Second Language Acquisition*. Oxford: Oxford University Press.
- Ellis, R.** 2009. "A typology of written corrective feedback types". *ELT Journal*, 63 (2), 97-107.
- Ene, E. and Upton, T. A.** 2014. "Learner uptake of teacher electronic feedback in ESL composition". *System*, 46, 80-95.
- Evans, N. W., Hartshorn, K. J., McCollum, R. M. and Wolfersberger, M.** 2010. "Contextualizing corrective feedback in second language writing pedagogy". *Language Teaching Research*, 14 (4), 445-463.
- Fazio, L.** 2001. "The effect of corrections and commentaries on the journal writing accuracy of minority- and majority-language students". *Journal of Second Language Writing*, 10 (4), 235-249.
- Ferris, D. R.** 1999. "The case for grammar correction in L2 writing classes: A response to Truscott (1996)". *Journal of Second Language Writing*, 8 (1), 1-11.
- Ferris, D. R., Chaney, S. J., Komura, K., Roberts, B. J. and McKee, S.** 2000. *Perspectives, problems, and practices in treating written error*. Colloquium presented at International TESOL Convention. (March 14-18, 2000).
- Ferris, D. R. and Hedgcock, J.** 2005. *Teaching ESL composition: Purpose, process, and practice*. Mahwah, NJ: Erlbaum.
- Ferris, D. R. and Roberts, B.** 2001. "Error feedback in L2 writing classes. How explicit does it need to be?" *Journal of Second Language Writing*, 10, 161-184.
- Grammar Checker.** 2 October 2015. <http://www.e-uned.es/subscription/subscriptionsInfo.php?subID=CM>
- Guénette, D.** 2007. "Is feedback pedagogically correct? Research design issues in studies of feedback on writing". *Journal of Second Language Writing*, 16, 40-53.
- Guichon, N. Betrancourt, M. and Prié, Y.** 2012. "Managing written and oral negative feedback in a synchronous online teaching situation". *Computer Assisted Language Learning*, 25 (2), 181-197.

- Heift, T. and Hegelheimer, V.** 2017. "Computer-assisted corrective feedback and language learning". In Nassaji, H. and Kartchava, E. (Eds.) *Corrective feedback in second language teaching and learning*. New York: Routledge, 51-65.
- Jewitt, C.** 2002. "The move from page to screen: The multimodal reshaping of school English". *Journal of Visual Communication*, 1 (2), 171-196.
- Kress, G.** 2010. *Multimodality. A social semiotic approach to contemporary communication*. London: Routledge.
- Lawley, J.** 2015. "New software to help EFL students self-correct their writing". *Language Learning & Technology*, 19 (1), 23-33.
- Lawley, J.** 2016. "Spelling: computerised feedback for self-correction". *Computer Assisted Language Learning*, 29 (5), 868-880.
- Lee, I.** 2013. "Research into practice: Written corrective feedback". *Language Teaching*, 46 (1), 108-119.
- Long, M.** 1991. "Focus on form: A design feature in language teaching methodology". In de Bot, K., C. Kramsch and R. Ginsburg (Eds.) *Foreign language research in cross-cultural perspective*. Amsterdam: John Benjamins, 39-52.
- Lyster, R.** 1998. "Recasts, repetition and ambiguity in L2 classroom discourse". *Studies in Second Language Acquisition*, 20 (1), 51-80.
- Lyster, R. and Mori, H.** 2006. "Interactional feedback and instructional counterbalance". *Studies in Second Language Acquisition*, 28, 269-300.
- Mackey, A., Gass, S. and McDonough, K.** 2000. "How do learners perceive interactional feedback?". *Studies in Second Language Acquisition*, 22, 471-497.
- Master, P.** 1995. "Consciousness raising and article pedagogy". In Belcher, D. and G. Brain (Eds.) *Academic writing in a second language*. Norwood, NJ.: Ablex, 183-204.
- Nadasdi, T. and Sinclair, S.** 2007. *Anything I can do, CPU can do better: A comparison of human and computer grammar correction for L2 writing using BonPatron.com*. Unpublished manuscript. 15 January 2018. <https://sites.ualberta.ca/~tnadasdi/Dublin.htm>.

- Ortega, L.** 2009. "The linguistic environment". In Ortega, L. (Ed.) *Understanding second language acquisition*. London: Hodder Arnold, 71-76.
- Panova, I. and Lyster, R.** 2002. "Patterns of corrective feedback and uptake in an adult ESL classroom". *TESOL Quarterly*, 36, 573-595.
- Peterson, E. K.** 2017. "The impact of computer-generated feedback on student perceptions of revision process". *Masters of Arts in Education Action Research Papers*, 247. 28 August 2018. <https://sophia.stkate.edu/maed/247>
- Philp, J.** 2003. "Constraints on 'noticing the gap': Nonnative speakers' noticing of recasts in NS-NNS interaction". *Studies in Second Language Acquisition*, 25, 99-126.
- Polio, C., Fleck, C. and Leder, N.** 1998. "'If only I had more time': ESL learners' changes in linguistic accuracy on essay revisions". *Journal of Second Language Writing*, 7, 43-68.
- Potter, R. and Fuller, D.** 2008. "My new English partner? Using the Grammar Checker in writing instruction". *English Journal*, 98 (1), 36-41.
- Reiners, T., Dreher, C. and Dreher, H.** 2011. "Six key topics for automated assessment utilization and acceptance". *Informatics in Education*, 10 (1), 47-64.
- Russell, J. and Spada, N.** 2006. "The effectiveness of feedback for the acquisition of L2 grammar". In Norris, J. D. and L. Ortega (Eds.) *Synthesizing research on language learning and teaching*. Amsterdam: John Benjamins, 133-164.
- Sauro, S.** 2009. "Computer-mediated corrective feedback and the development of L2 grammar". *Language Learning & Technology*, 13 (1), 96-120.
- Schmidt, R.** 1990. "The role of consciousness in second language learning". *Applied Linguistics*, 11 (2), 129-158.
- Spada, N.** 2011. "Beyond form-focused instruction: Reflections on past, present and future research". *Language Teaching*, 44, 225-236.
- Tiene, D. and Luft, P.** 2001. "Teaching in a technology-rich classroom". *Educational Technology*, 41, 23-31.

- Truscott, J.** 1996. "The case against grammar correction in L2 writing classes". *Language Learning*, 46, 327-369.
- Van Beuningen, N., de Jong, N. H. and Kuiken, F.** 2008. "The effect of direct and indirect corrective feedback on L2 learners' written accuracy". *International Journal of Applied Linguistics*, 156, 279-296.
- Ware, P.** 2011. "Computer-generated feedback on student writing". *TESOL Quarterly*, 45 (4), 769-774.
- Ware, P. and Warschauer, M.** 2005. "Electronic feedback and second language writing". In Hyland, K. and F. Hyland (Eds.) *Feedback and second language writing*. Cambridge: Cambridge University Press, 1-29.
- Warschauer, M.** 2010. "Invited commentary: New tools for teaching writing". *Language Learning & Technology*, 14 (1), 3-8.

APPENDIX 1: Sample tailor-made test

1. She decided to write her grandma to ask for ~~an~~ advice.
2. Richard tried to make her feel comfortable and confident.
3. Grandma started another debate but with no success.
4. It was ~~a~~ day of her 18th birthday when Pam wrote a letter to her grandma.
5. On ~~the~~ other hand ~~the~~ situation in Pam's home was very difficult.
6. ~~By~~ ^{For} this reason Pam wrote to grandma.
7. When she said her parents about this job they felt sadness.
8. In ~~the~~ letter Pam begged some money to her grandma to settle some bills.
9. In the end she managed to finish her studies and set up her own business.
10. Their parents were always motivating her to get ~~A~~ good marks.
11. Pam wrote to grandma to ask for some money ~~to~~ ^{for} her ambitious project.

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BOOK REVIEW

Multimodality in Higher Education
Arlene Archer and Esther Odilia Breuer
Brill: Leiden, Boston, 2016. 270 pages.
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Reviewed by **Lucía Bellés-Calvera**
lucia.belles@uji.es
IULMA / Universitat Jaume I, Spain

Multimodality in Higher Education, by Archer and Breuer (2016) deals with multimodal writing practices and pedagogies in tertiary education. With the boost of new technologies in the field of education, studies on modes of communication (e.g. writing) have focused on their evolution throughout the years, particularly in the learning process.

This book is aimed at educators and researchers who are interested in the writing communication practices required in a variety of domains, namely architecture, engineering or cultural studies among others. It is true that Multimodality has become quite complex in the past few years given that writing is regarded as a means of knowledge even in practical fields, such as science and media production. In this sense, this volume could be used as a resource book for those educators who want to reflect on the relevance of multimodal competencies when conveying a message, especially when they want to suit students' needs in the near future. At the same time, the content of the book is precise and easy to follow as it includes interviews and pictures that can help readers understand the changes that have taken place in the communication landscape.

Within the introductory chapter, Bezemer and Jewitt (2010: 180) state that the field of multimodality is one "of application rather than a theory". This concept has been present in higher education through pedagogies and texts that involve the use of pictures and new information and communication technologies (ICTs). Throughout the book, issues such as academic genres, verbal and non-verbal communication are reviewed. Other relevant topics are related to teaching writing practices taking into account

students' linguistic and social backgrounds, since these elements will aid them to construct their academic identities.

The volume consists of 11 chapters grouped in three main sections that explore a specific theme:

- Part 1 accounts for Multimodality in Academia (Chapters 1–4).
- Part 2 involves Multimodality in Text Composition (Chapters 5–8).
- Part 3 delves into Multimodality across Domains (Chapters 9–11).

The focal point of the first chapter is an interview with Gunther Kress, a well-known international researcher whose fields of expertise involve education, genre studies, and multimodality, among others. Kress accounts for four challenges that higher education is facing at the moment from a multimodal approach, those of knowledge, social, agency and non-native researchers/students. All of them have to do with what he calls *Umbruch*, a German word that stands for a period of change and transition. He points out the notion of knowledge should be re-examined in higher education institutions, since writing in the academic field has been the source traditionally accepted. The “social” has varied, that is, academic disciplines have developed over time, thereby having an impact on recent research. Chapter 2 illustrates the evolution of the lecture from a historical point of view. In fact, it presents the different written and spoken communication practices taking the Middle Ages as a starting point. Hence, it shows how the role of authority and learners in lectures has adapted to the contemporary era, which is characterized by the “triumph of the eye over the ear” (Clark, 2006: 36), due to the introduction of ICTs. In other words, this genre has proven to be flexible in terms of academic identity and authority as suggested by Thesen (2007, 2009a, 2009b). Lectures are regarded as a multimodal teaching practice where modes (written, spoken, gaze, image) interact with each other. The chapter that follows (Chapter 3) departs from a multimodal analysis of the research monograph. Despite being highly influenced by written language, figures, tables and other graphic elements are traits of a research monograph. According to Bateman (2008), its dominant mode is text-flow, which may vary depending on the discipline. So far, the author delves into two additional concepts in the chapter: medium and genre, which help to identify multimodal genre patterns within the Genre and Multimodality model (GeM) (Bateman, 2008). Focusing on this

GeM model, several aspects concerning content play a significant role in a research monograph, such as layout, visuals, cohesive devices and recontextualisation. The first part of the volume closes with Chapter 4 where the author discusses academic arguments, paying attention to non-verbal communication (i.e. visuals). Even though scholars state that images can convey messages on their own, limitations need to be acknowledged given that these visuals probably need to be supported by some kind of linguistic content. Hence, the chapter concludes that visuals depend on spoken or written communication to avoid ambiguous statements.

The second part of the volume is based on text composition from a multimodal perspective. Chapter 5 reviews the notion of multimodal academic argument, previously mentioned in Chapter 4. The author looked at the multimodal assignments of first year undergraduate students enrolled in a History and Theory of Architecture module. By means of pedagogical implications, the author remarks the need for a multimodal pedagogy to train educators. Chapter 6 introduces a discussion on how the use of digital media has not only influenced the emergence of new genres, but also the reconsideration of the existing ones. Moreover, being familiar with popular culture can help students produce multimodal texts at university. So far, the social relations generated by ICTs leads the author to reflect on this issue. Chapter 7 reinforces the idea that all texts are multimodal to some degree. The author focuses on six art and design writing projects, carried out by students who were free to combine text and imagery. However, in this multimodal texts a balance between freedom and restriction as well as between content and innovation was required. Part 2 of the book ends with Chapter 8, which emphasizes the need to share one's voice in academic writing. As it stresses the ability to display one's critical thinking as an author, writer identities are key. According to Clark and Ivanič's (1997: 137), there are three identities: a) the *autobiographical self*, in which the writer tells his/her life story; b) the *discoursal self*, which can be found in higher education and is related to the writer's field of expertise; and c) the *authorial self*, which corresponds to "the writer's sense of authority or authorial presence in the text" (p.137). The author claims that providing students with Image Theatre techniques in writing courses can encourage them to express their *authorial* and *discoursal* selves equally.

Part 3 of the volume includes Chapters 9, 10 and 11. Chapter 9 analyses intersemiotic relationships in undergraduate science textbooks, particularly American ones, which display text and images to make meaning. Including explicit instruction of these features in academic courses allows students to improve their writing and reading strategies effectively. Chapter 10 has to do with a case study carried out with postgraduate international accounting students. Following Halliday's *Systemic Functional Linguistics* (1985), the author describes participants' multimodal practices in a Management Accounting module. The fact that international students may have grown with a different linguistic and cultural background may affect their comprehension in higher education contexts. Therefore, issues like language (EFL/ESL) and culture need to be borne in mind. The last chapter (Chapter 11), based on the *Integrative Multisemiotic Model* proposed by Lim (2004), goes into the specific functions of the written components of Civil Engineering drawings, which are said to carry contextual meaning. These written components combined with pictures contribute to the overall meaning-making process.

All things considered, the volume is a good reference to think about the dissemination of knowledge in higher education from a multimodal approach. The authors do not only review traditional communication practices in academic settings, but they also include a variety of texts and visuals explaining the changes they have undergone in our society, more specifically in higher education institutions.

REFERENCES

- Bateman, J. A.** 2008. *Multimodality and Genre: A Foundation for the Systematic Analysis of Multimodal Documents*. London: Palgrave Macmillan.
- Bezemer, J. and Jewitt, C.** 2010. "Multimodal analysis: Key issues". In Litosseliti, L. (Ed.), *Research Methods in Linguistics*. London: Continuum, 180–197.
- Clark, W.** 2006. *Academic charisma and the origins of the research university*. Chicago: University of Chicago Press
- Clark, R. and Ivanič, R.** 1997. *The Politics of Writing*. London: Routledge.

- Halliday, M.** 1985. *An Introduction to Functional Grammar*. London: Edward Arnold.
- Lim, F. V.** 2004. “Developing an integrative multi-semiotic model”. In O’Halloran, K. L. (Ed.), *Multimodal Discourse Analysis*. London: Continuum, 220–246.
- Thesen, L.** 2007. “Breaking the frame: Lectures, ritual and academic literacies”. *Journal of Applied Linguistics*, 1, 33–53.
- Thesen, L.** 2009a. *Lectures in transition: A study of communicative practices in the Humanities in a South African university*. Unpublished Doctor of Philosophy, University of Cape Town, Cape Town.
- Thesen, L.** 2009b. “Researching ‘ideological becoming’ in lectures: Challenges for knowing differently”. *Studies in Higher Education*, 34 (4), 391–402.

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