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Reading Titles of Empirical Research Papers

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ABSTRACT

The restricted time allocated to courses and the immediate need to read literature in English necessitates the teaching of selective reading in many English as a foreign language contexts. This paper reports on one element of an expeditious (quick, effective, efficient and selective) reading course for learners in an English for Academic Purposes (EAP) context. It details how postgraduate students of chemistry in a Tunisian university are taught to read titles of empirical research papers, as this becomes as important as reading abstracts for fast-tracking relevant data. Analysis of the literature in the field of technical writing identifies four types of titles. Based on this classification, the course component aims at raising the learners' awareness of the linguistic exponents that typify titles, and making them appreciate the importance of titles and their classification. The paper details how this single strategy fits into an expeditious approach to the teaching of reading.

INTRODUCTION

It is now acknowledged that in addition to making science, scientists devote more and more time to reading (Huckin, 1987; Bazerman, 1988; Berkenkotter & Huckin, 1995). And the amount to be read grows at an alarming rate, not least because of a 'publish or perish' imperative in academia. Reading serves several purposes depending on the reader's position and status. A scientist may read to keep up to date with literature, to find a niche for future research, or simply to be inspired. Why people read in the scientific community is the subject of several studies (Huckin 1987; Carrel, Devinne, & Eskey, 1992; Berkenkotter & Huckin, 1995) and will not be discussed further here, as our interest lies more in how professionals read.

Researchers who use English as an additional language and particularly in non-Anglophone environments face the challenge of consuming knowledge that is produced in one dominating language. Bell (2008) maintains that "much of the reading research has tended to focus on the comprehension ability of a reader, i.e., the product of reading, or on individual components of the reading process" (p. 41). Urquhart and Weir (1998) note that the overriding attention paid to careful reading in the theoretical literature has meant that, expeditious reading has somewhat been ignored. Extensive reading has been the subject of several studies (Mason & Krashen, 1997; Day & Bamford, 2002; Green, 2005). Search reading, scanning, skimming are distinguished from careful reading by the factor of *selectivity*. In the last type, a text can be presumed to be examined; in at least the first two

types and probably the third, the reader will deliberately either avoid, or pay minimum attention to some parts of the text.

Expeditious reading involves the conscious use of strategies to sample a text in the most efficient fashion in line with a particular purpose (see Paris, Wasik, & Turner, 1991 for a theoretical description of strategies as actions selected deliberately to achieve particular goals). We have theories of careful reading, but very little on how readers process texts quickly, efficiently and selectively, that is, *expeditiously*, to extract important information in line with intended purpose(s). In this respect, Van Dijk (1977) suggests:

...we also have explicit discourse cues to select correct macro structures. Such clues include titles, initial summaries and declaration of content/intention. The reader by convention interprets such properties as approximate indications of the global meaning of the discourse. (p. 79)

In contrast to intensive reading, expeditious reading activities such as skimming and search reading were often overlooked in the past, certainly by testers, researchers, and reading model builders. Needs analyses have made it clear (see Weir, 1983) that one of the biggest problems for overseas students studying in a second language context is the sheer volume of reading that is required of them. Thus, as well as needing to read carefully to understand all in the text, they also have to read expeditiously to quickly extract ideas, or to establish whether it is relevant to their purposes. In skimming for gist, for instance, the reader asks: what is this text as a whole about? while avoiding anything which looks like detail. The defining characteristics are (a) the reading is selective, with sections of the text either omitted, or given very little attention; and (b) an attempt to build a macrostructure (the gist) on the basis of as few details from the text as possible.

Given the potential impact of reading on the economies of states in the northern hemisphere, let alone those of emerging nations, it is high time more attention was paid to expeditious reading in the professional academic literature. Our concern in this article is with some preliminary work on the use of titles which we offer as an example of a potentially rewarding area of focus.

RESEARCH FOCUS

In this paper we will focus narrowly on one possible operationalization of an expeditious strategy, namely reading titles in academic articles that might form part of a wider program to teach students to read more effectively and efficiently. For reasons stated above, we feel that such operationalizations are vital, if we are to achieve an integration of current theory with practice, and are at the heart of applied linguistics as well as TEFL/EAP teaching.

This particular course component implements expeditious strategies as explained in Urquhart and Weir (1998) as it “involves the conscious use of strategies to sample a text in the most efficient fashion in line with a particular purpose” (p. 131). The course meets the criteria mentioned in Urquhart and Weir’s definition of expeditious reading (i.e., Consciousness, Efficiency, Purposefulness).

Titles have gained an increasing importance in terms of the number of their readers. As the amount of published research increased, most readers resorted to a careful scanning of the table of contents of journals to select titles which may be of interest to them. Expeditious reading has become a survival activity which allowed readers to find their way through an overwhelming body of information. Data collecting centers and journal editors admit that readers of titles outnumber by far those of other sections of the research paper (Hills, 1997). This rising importance has triggered changes in the way titles are written. Porusch (1995), for

instance, advises novice writers to pay particular attention to the writing of titles, because vague and unsubstantiated titles may produce non-readers. Therefore, EAP reading courses might usefully take this change into consideration and propose strategies for processing titles.

The paper reports briefly on reading strategies of a specific part of the research paper, namely the title. The module rendered here is part of a course taught to Tunisian students at the graduate level at the Faculty of Sciences in Tunis. The approach in the present study is informed by genre-oriented writings on scientific discourse (Bazerman, 1988; Berkenkotter & Huckin, 1995), the grounded works of scientists interested in the issues of technical writing (Bottle & Rowland, 1992; Sowan & Horwood, 1987; Porusch, 1995), and the writings of Urquhart and Weir (1998) on expeditious reading strategies. The application is sensitive to the specific peculiarities of EAP in an EFL environment. The design of this course is also informed by the classical narrow-angled approaches to the teaching of English for Specific Purposes, which are premised on the consideration of the needs of the learners, and in some case the terms of explicit or implicit agreement with the decision makers (Hill, Sopelsa, & West, 1982, Swales, 1984, Boswood & Mariott, 1994).

The paper gives a brief overview of the program from which this particular module has been selected, the context in which this program is implemented, as well as its short and long term objectives. We will start by describing the learners' profile and end by presenting the successive teaching activities and comments on their pedagogical objectives. We hope this will serve as an example of the type of teaching which may contribute to making science students more successful expeditious readers in contrast to a traditional concern with careful reading alone.

METHODOLOGY AND OUTCOMES

This section gives details about the population, the context, and the most significant variables which affected the implementation of the course. One should admit that the particular environment in which the course was implemented may not allow the generalization of its outcomes in more traditional EAP contexts.

Learners' Profile

The Tunisian learners have studied English at the secondary level for four years, but most of them did not study it at the tertiary undergraduate level which lasts on average four years. Subject teaching is done through the medium of French at these two levels. Postgraduate students are aware that, at their level, English is the language they will use to consult their field literature.

The course requires an intermediate level in English, which most students enrolled in postgraduate studies do not have. In terms of specialization, students selected to follow postgraduate courses are advanced (a total of 30 students). Thus, the population in the context of this study is made of elite students selected for postgraduate cycle in their field, but whose linguistic competence in English, at least in the case of a majority, is poor. However, the course relies on the high quality of the population as they are top students in their discipline and, furthermore, on their high degree of motivation to catch up.

There is no linguistic entry test. However, a first meeting with all students is held to inform them about the course linguistic requirements. They are informed that participants should know the mechanics of the language, and should be able to produce understandable discourse in English. Those who do not satisfy these requirements are advised to take extra-courses offered by several institutions in Tunisia, e.g., the British Council or AMIDEAST.

Overview of the Program

The main objectives of the postgraduate course may be summed up as follows:

1. Train students to read specialized literature in English. More particularly, students are trained to read the different sections of empirical research papers in their speciality.
2. Initiate learners in the discourse conventions of their speciality.
3. Become operational members of the academic community in terms of reading. This means that learners should use the reading strategies of professionals in the field efficiently.

At the end of the course, the students should be able to perform the following two tasks:

1. Read the literature of their speciality.
2. Recognize and hopefully reproduce discourse which conforms to the conventions established by the research community in their field.

Constraints and Incentives

High level English was taught to low level students. This was the major constraint that the teacher in this particular context had to cope with. The only solution proposed by members of the staff, when the program content was negotiated with them, was to inform students about the linguistic requirement for the course and advise them to enrol for remedial courses of general English. The students, whose linguistic profile was discussed above, were taught to read the different sections of the research paper.

Time constituted another major constraint. The course lasted 20 weeks (3 hours per week, 60 hours total). The ultimate objective, as mentioned earlier, was to familiarize learners with fast processing of written data, and make decisions on the basis of rapid reading. Time, then, constituted a constraint, in the sense that the course had set objectives that would seem overambitious. However, there were some considerations that could justify some optimism. The main factor that might justify this ambitious plan was the high degree of motivation of the participants. They were aware that mastering English was a *sine qua non* of becoming a full member of their academic community. Some subject teachers, who were at the same time members of the research community, constituted consciously or unconsciously, strategic allies. Handouts and readings given by these teachers were up to 90% in English. Thus, these materials constituted highly motivating incentives.

Teaching Materials

Some of the handouts given to students by subject teachers were used as teaching materials. The selected texts had to meet the previously set criteria. The course focused on the way information was structured in the different sections of the research paper. One had constantly to keep in mind that the objective was to train learners so that they can recognize disciplinary organizational features in specialized research articles.

The course was demanding, time consuming in terms of design, and highly rewarding. In addition to an interest in the specific field, some EAP training was required along with knowing the leading periodicals in the students' field of specialization. In this particular

course, teaching materials were taken from *Anlusion*, *Electrochemica Acta*, *Journal of Chemical Education*, *Inorganic Chemistry*, and *The Journal of the American Chemical Society*.

Having presented the guidelines of the whole program, we will now turn our attention to the module itself that is the object of the present study reported here.

Objectives of the Module on Titles

The particular module (3 hours) on reading titles aims at:

1. Sensitizing students to the importance of titles.
2. Familiarizing learners with different types of titles of scientific research papers.
3. Enabling students to recognize lexical items that typify different titles.

The categorization of titles was inspired by the work by Porusch (1995), *A Short Guide to Writing about Science*. Before the final selection of titles to be used as teaching materials, a specialist was consulted in order to check the classification. Porusch (1995) offers the following categories of titles:

Type One: The name of the problem, hypothesis, or theory that is tested or discussed in the paper, e.g., “Probing the Balance between Localisation and Delocalisation of the Metal-Based Electron in Face-shared Bioctahedral Complexes” (*Inorganic Chemistry*, 36, 15, 1997).

Type Two: The name of the phenomenon or subject investigated, e.g., “Synthesis, Structure, and Thiolytic Reactions of Pyridine Soluble Alkaline Earth and Yttrium Thiolytes” (*Inorganic Chemistry*, 36, 15, 1997).

Type Three: The name of the method used to investigate a phenomenon, e.g., “Preparation of Cesium Trithionate by the Ultrasonic Reaction of CsF with S₂” (*Inorganic Chemistry*, 36, 13, 1997).

Type Four: A brief description of the results obtained, e.g., “An Azide-Bridged Copper (II) Ferromagnetic Chain Compound Exhibiting Metamagnetic Behavior” (*Inorganic Chemistry*, 36, 15, 1997).

COURSE IMPLEMENTATION

First, learners were asked to read a list of titles taken from the journals mentioned above. Based on the typology proposed by Porusch (1995) and explained previously, students were asked to classify the titles in the table of contents of a journal in their speciality. The first examples were straightforward and clear. The selection of teachable titles had been time consuming and had sometimes been very difficult. One had to make sure that the first examples were not very challenging.

The aim of the above activity was to help students make their first attempts in performing tasks which would later become automatic and unconscious. Being a full member of the expert community of professional readers requires, among other factors, the acquisition of the community's reading behaviour. The major benefits of the strategies used in this course were to make explicit reading strategies that would ultimately be internalized as novice readers become independent expert readers.

Learners were able to identify the content of the sample titles. Thus, they were led to discover the types of titles as proposed by Porusch (1995). A discussion followed on the factors that oriented choices. Students were asked why a given author would choose to put the method first, while another to front results. Students were encouraged to discuss the underlying factors in the language of their choice. However, most of them insisted on using English.

Explaining strategies to students to enhance self-consciousness might be more appropriate in the context of adult, instrumentally-motivated learners. If such students are convinced of the utility of the reading strategies they are being taught, their full adherence is gained. In this respect, Williams and Burden stress the importance of metacognitive strategies in the reading process. Metacognitive strategies are more concerned with thinking about the reading experience itself and are seen to involve

...learners stepping outside their learning, as it were, and looking at it from outside. Such strategies include an awareness of what one is doing and the strategies one is employing, as well as knowledge about the actual process of learning. They also include an ability to manage and regulate consciously the use of appropriate learning strategies for different situations. They involve an awareness of one's own mental processes and an ability to reflect on how one learns, in other words, knowing about one's knowing (as cited in Urquhart & Weir, 1998, p. 179).

We believe that knowing about one's knowing can serve the needs of our particular audience well. Students in the particular context of the present study needed to know not only the objectives of what they were taught, but also the principles which informed the strategies used by the teacher to achieve these objectives. In this respect, Lawrence (2007) advises EAP reading instructors, and particularly in the case of bilingual learners, to "enable students to become more aware of the strategy use. Teachers need to do this often in think-aloud formats where they can define strategies; tell students why they are using the strategies, tell them how they are using the strategies and how they are evaluating the strategies" (p. 62). This in no way means that students had to have some knowledge about teaching methods and strategies. It simply meant that they had to be aware of the personal pedagogical gains they would achieve if they adhered to them. Faced with the first real-life challenge, students saw the benefits of what they had been taught. The final exercise gave them a taste of some personal satisfaction.

After making sure that learners knew the four types of titles, they were given a second more challenging list of titles and then, invited to classify them. They were led to understand that authors could choose to include two types of information in their title. As they went through the list, learners found out that most titles, indeed, contained two types of information: method and result, method and phenomenon, problem and result, etc.

The final stage in this module consisted in giving students copies of the table of contents of a known journal in their field. They were then asked to classify the titles as they had done with the second list. This exercise was closer to real-life scanning practices. Scientists first go through the table of contents and select their readings on the basis of information in titles. Berkenkotter and Huckin (1995), who interviewed scientists on their reading habits, found that professional readers "quickly scanned the table of contents looking for key words and noting names of authors" (p. 30). In the context of this particular course, learners were smoothly guided toward a real-life practice, but this time, it was done consciously.

The final exercise aimed at helping students "cope with self-directed autonomous learning" (Urquhart & Weir, 1998, p. 181). Putting students in a situation which required the use of their background knowledge of the field, in addition to their already acquired reading

strategies may, in the case of the scientific audience in the particular context of the course, have compensated for their low linguistic proficiency.

Learners were trained to carry out a task which would be repeated again and again until it became an unconscious practice. This training in discourse community professional reading practices does not differ from the training of future drivers. Driving instructors show learners the different correct driving practices. Learners scrupulously follow these steps in the early stages, later, they perform correct gestures professionally, but unconsciously. Professional readers, like professional drivers, unconsciously use strategies to perform routine tasks. Expeditious strategies lend themselves to this sort of teacher mediated training and on the whole, take far less classroom time than is involved in careful reading skill teaching. Their positive implications in terms of promoting the reading skills are potentially far greater.

CONCLUSION

Reading for academic purposes is evolving in response to changes in the context of producing and receiving scientific reports. Non-native science researchers often need to be trained to read an ever increasing quantity of professional information. This paper discussed a three-hour module of an expeditious reading course on how to read titles of research articles. As with any other course, the one reported here needs continued improvement. Classroom implementation revealed the following two weaknesses:

- (1) Low linguistic competence can sometimes constitute an obstacle towards more efficient results.
- (2) The criteria for selecting texts should be more clearly defined.

Addressing the first weakness, a possible solution would be to administer a selective entry test aimed at defining an adequate linguistic threshold for processing these articles in an expeditious fashion. To combat the second weakness, the selection of titles is now guided by authenticity. More importance might be given to linguistic considerations. The exposure to inauthentic, but linguistically-revealing examples, at least in the preliminary stages of the course might also be considered here. The low linguistic level of the students would entail exposing them, in the preliminary stages of the course, to adapted titles (i.e., simplified versions of original titles).

Delivering this course has evidenced the potential advantages that teaching expeditious reading strategies may provide particularly in the context of highly-motivated learners with sufficient subject background knowledge, and clear reading objectives. The course may serve the needs of professionals working under tight academic and non-academic constraints and struggling for more visibility through publication in English-medium top journals based in the West (Canagarajah, 1996). Informal discussions with former students, who are using some of these strategies in real-life research situations suggest positive outcomes. Comparing themselves to students in other specialities, but who did not take the course, they confess that the reading strategies they were taught saved them a lot of time and energy.

Those who rely on autodidactic learning may reach the same level of competence, but a lot of time, and science, may be lost in the process. As with all new developments in our field, empirical research will be necessary to substantiate such initial conjecture. The systematic evaluation of the outcomes of the whole course may entail more grounded recommendations in the future.

REFERENCES

- Bazerman, C. (1988). *Shaping written knowledge. The genre and activity of the experimental article in science*. Wisconsin: Wisconsin University Press.
- Bell, J. (2008). Reading between texts: Thai postgraduate students' intertextual framing and metacognition use in reading. *The Reading Matrix*, 8, 39-54.
- Berkenkotter, C., & Huckin, T. (1995). *Genre Knowledge in Disciplinary Communication: Cognition/Culture/Power*. New Jersey: Earlbaum.
- Boswood, T., & Mariott, A. (1994). Ethnography for specific purposes: Teaching and training in parallel. *English for Specific Purposes*, 13, 15-21.
- Bottle, R. T., & Rowland, F. B. (1992). Abstracting and indexing services. In R. T. Bottle & J. F. Rowland (Eds.), *Information sources in chemistry* (pp. 132-158). US: Bowker SAU.
- Canagarajah, A. S. (1996). Non-discursive requirements in academic publishing, materials, resources, of periphery scholars, and the politics of knowledge production. *Written Communication*, 13, 435-472.
- Carrel, P. L., Devinne, J., & Eskey, D. F. (Eds.) (1992). *Interactive Approaches to Second Language Reading*. Cambridge: Cambridge University Press.
- Day, R., & Bamford, J. (2002). Top ten principles for teaching extensive reading. *Reading in a Foreign Language*, 14, 136-141.
- Hill, S., Sopelsa, B. F., & West, C. K. (1982). Teaching ESL students to read and write experimental research papers. *TESOL Quarterly*, 1, 337-347.
- Green, L. (2005). Integrating extensive reading in task-based curriculum. *ELT Journal*, 59, 306-311.
- Hills, P. (1997). Writing for publication. Workshop. University of Reading. Reading: UK.
- Huckin, T. (1987). Surprise value in scientific discourse. Paper presented at the College Composition and Communication Convention, Atlanta, USA.
- Lawrence, L. (2007). Cognitive and metacognitive reading strategies revisited: Implications for instruction. *The Reading Matrix*, 7, 55-71.
- Mason, B., & Krashen, S. (1997). Extensive reading in English as a Foreign Language. *System*, 25, 91-102
- Paris, S. G., Wasik, B. A., & Turner, J. C. (1991). The development of strategic readers. In R. Barr, M. Barr, P. Kamil, P. Mosenthal, & P. Pearson (Eds.), *Handbook of reading research* (pp.236-368). London: Longman.
- Porusch, D. (1995). *A Short Guide to Writing About Science*. New York: Harper Collins.
- Sowan, F., & Horwood, E. (1987). *Publishing with Ellis Horwood: An Author's Guide to the Publication of Works in Science and Technology*. Chichester: Ellis Horwood Ltd.
- Swales, J. M. (1984). A review of ESP in the Arab world 1977-1983: Developments and retrenchments. In J. M. Swales & H. Mustafa (Eds.), *ESP in the Arab world* (pp.23-36). UK: University of Aston Language Unit.
- Urquhart, S., & Weir, C. (1998). *Reading in a Second Language: Process, Product, and Practice*. London: Longman.
- Van Dijk, T. A. (1977). Semantic macrostructure and knowledge frames in discourse comprehension. In M. A. Just. & P. Carpenter (Eds.), *Cognitive processes in comprehension* (pp. 236-257). US: Earlbaum.
- Weir, C. (1983). Identifying the language needs of overseas students in tertiary education in the United Kingdom. Unpublished Ph.D. Thesis, University of London.
- Williams, M., & Burden, R. L. (1997). *Psychology for Language Teachers: A Social Constructivist Approach*. Cambridge: Cambridge University Press.

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