

Visit from Thierry Olive (CNSR & University of Poitiers) to David Galbraith (Staffordshire University)

8th - 14th of February 2010

• PURPOSE OF THE VISIT

Two year ago, I began collaborating with David Galbraith on working memory (WM) demands and on idea change during content planning, and more particularly during content structuring.

Two experiments have already been carried out. The first one, which was carried out in Stoke-on-Trent, aimed at replicating and extending findings of Galbraith et al (2005) about the role of visuospatial WM in planning, and especially in idea change. The second study, which was carried out in Poitiers, investigated the role of visuospatial WM during structuring by examining the effects of different kinds of plans and secondary tasks on idea generation. The data were partially analyzed. Content analyses have to be carried out in adequacy with the previous analyses carried out on the English texts.

This visit in Staffordshire University was intended to allow us comparing the findings of both studies, the methodologies for content analysis and for idea scoring. The visit also permitted us to work to plan writing up two manuscripts for publication in international peer-reviewed journals.

Finally, we also prepared a response to a funding research program coordinated by the British ERSC and French ANR (Open Research Area Program) to develop a longer-term collaboration and improve our understanding of the role of text structuring.

• DESCRIPTION OF THE WORK CARRIED OUT DURING THE VISIT

During this Short Term Scientific Mission the following things have been carried out:

- (1) As other colleagues from Portugal were in Staffordshire University at the same period, D Galbraith organized a workshop in which we shared our findings. Studies on the role of working memory in writing were presented.
- (2) Issues concerning the idea coding in the plans were discussed. On the basis of a number of pilot studies a coding scheme for the idea analysis was developed. It was decided to complete the analysis by asking additional judges to mark the ideas.
- (3) Issues concerning the idea coding in the texts were also discussed. It was decided to also examine and compare numbers of ideas generated during the text production phase.
- (4) Theoretical predictions made by Galbraith's (2009) dual process model of writing have been discussed in the light of the first finding of the studies.
- (5) Preparation of a grant proposal at the ORA call (French ANR / UK ERSC). This response will focus on the role of spatial WM in idea generation. Studies in UK and In France will be carried out both in an experimental and individual differences perspectives. We have also decided to make an exhaustive review of the literature on planning in writing and its relation with idea development.
- (6) A meeting with colleagues from Staffordshire University was arranged to informally present our research.
- (7) Planning the writing up of the results of the studies. We have decided to write to different articles that will be submitted to international peer reviewed journals

• DESCRIPTION OF THE MAIN RESULTS OBTAINED

During this STSM the following results have been obtained:

- (1) The most important finding from both studies is that structuring a text helps writers to generate more new ideas
- (2) The second finding is that idea generation during structuring requires spatial and not visual working memory.

- (3) Third, plans that require writers to conduct spatial structuring enhance idea generation. This was shown by asking writers in the French experiment to structure their idea either with a outline or with a hierarchical diagram.
- (4) Plan for writing papers reporting findings from the studies.
- (5) Preparation and beginning of writing a response to a bilateral French-UK call

- **FUTURE COLLABORATION WITH HOST INSTITUTION**

This STSM has been very productive. We now have a complete figure of findings from both studies, even if additional analyses have to be carried out. As we decided to respond to a grant call, we have designed several experiments that will be carried out jointly in UK and in France in the next years. We thus have been able to consolidate our collaboration.

- **PROJECTED PUBLICATIONS/ ARTICLES TO RESULT FROM STSM**

It is anticipated that at least two articles will be submitted to refereed international journals over the months. The first paper will report findings from the UK study, and the second one will report findings from the French study. We have also submitted a paper at the EARL's (European Association for Research on Learning and Instruction) SIG- Writing meeting which will be held in September at Heidelberg (Germany).

- **CONFIRMATION BY THE HOST INSTITUTE OF THE SUCCESSFUL EXECUTION OF THE MISSION**

I confirm that the mission was extremely productive and has led to preparation of several joint publications as well as the development of detailed plans for future collaborations between the two research teams. I can be contacted at d.galbraith@staffs.ac.uk if further details are required.