11 Overcoming navigational design in a VLE: students as agents of change

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Abstract

This paper focuses on the outcomes of a project funded by the Teaching and Learning Enhancement Office at the University of Nottingham Ningbo China (UNNC). Students were recruited to design a new navigational architecture for the Moodle pages of the Language Centre. They received some training on the key principles of distributive learning and worked with a small team of Language Centre Blended Learning coordinators in a series of rapid prototyping design workshops. The core focus of the project was on creating a suitable navigational architecture which would enable our predominantly Chinese students to engage confidently with our Virtual Learning Environment (VLE) pages and to limit cultural cognitive dissonance as much as possible. The student designs were then vetted by the entire team of tutors and used as the basis for the development of a coherent blended learning plan.

Keywords: virtual learning environment, navigational design, students as agents of change, cultural cognition.

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1. Project rationale

As many other departments in universities, the Language Centre at UNNC makes use of the University's dedicated VLE platform, Moodle, to support the delivery of all its accredited modules. Not untypically, the implementation of Moodle in the department took place in response to University directives without any concerted reflexion or plan at the local level as to how this VLE might be best used and structured.

The result a few years down the line, is one where adoption is patchy in terms of content design beyond the minimum institutional requirements and where practice varies enormously from sophisticated uses with a co-constructivist distributive delivery framework to the accumulation of learning and teaching materials where the VLE serves as a mere repository. The lack of a concerted adoption or implementation plan has lead to a number of problems greatly reducing the potential benefits in terms of teaching and learning that both language tutors and students could gain from the use of a VLE:

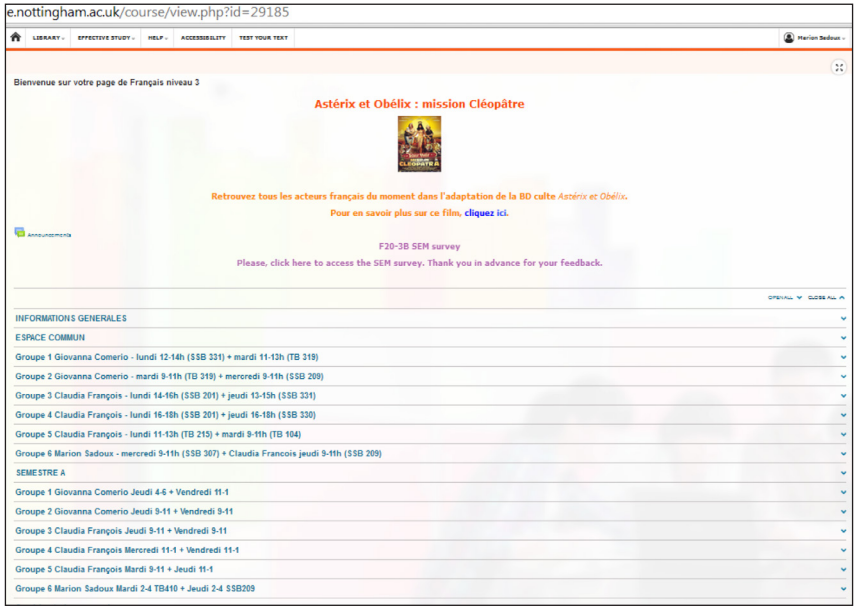
- It is difficult for tutors in large co-taught modules sharing the same Moodle page to appropriate a coherent space or to develop their own instructional practice. These pages tend to either be controlled by the Module Convener or individual tutors develop their content separately on one block – leading to overload, repetition of content and endless downwards vertical development (compare Figure 1 and Figure 2).

- Tutors report a lack of engagement with interactive tools on Moodle and have clear difficulties in getting students to develop an online cognitive presence on the VLE, thereby greatly limiting its potential to facilitate co-constructive learning through fora, blogs or wikis and to play a sufficient role in a distributive learning framework.

- The disparity of practice exists within individual language levels too, meaning that students progressing from one level to the next (90% of our learners) do not follow a logical or habitual structure.

- The feedback from students often contradicts the work carried out by tutors – for instance on numerous Moodle pages where an enormous amount of contents and resources are available, students report a lack of resources.

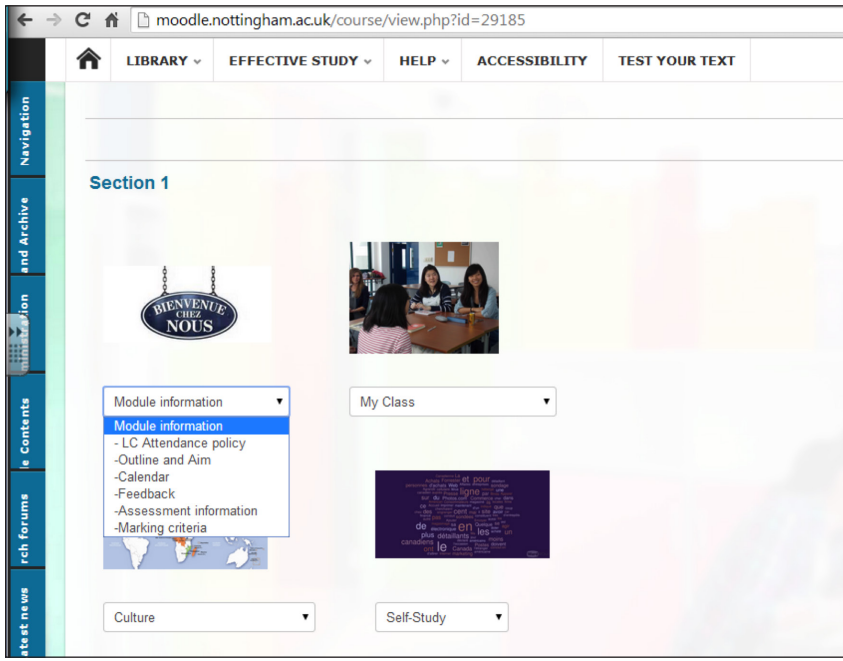
Figure 1. Moodle navigation before the project



Another important concern underpinning this project focuses on the possible clash between the cultural cognitive styles of our learners (predominantly Chinese) and the Moodle interface which is essentially a 'western' educational product.

In other words, our project sought to work in partnership with our students in order to design a new navigational architecture that would be clear and appealing to them and that could serve as a blueprint for a coherent and cohesive plan to develop the Language Centre's pedagogy in using the VLE.

Figure 2. The same module with new navigation



2. Why focus primarily on navigational design?

Studies on web usability all point to navigational design as being of primary importance for users and yet, this is something which is rarely the focus of any training on how to use a VLE or even rarely the focus of any eLearning training, as can be evidenced by glancing at University eLearning training resources. Yet it is of vital importance to pay attention to navigation and to ensure that it is user-friendly. As Thorne pointed out in an interview with Jeanette Campos in 2012,

> "when we talk about […] instructional design, there is a piece that is routinely overlooked and that most people do poorly. You have to design

> navigation. You have to design the navigation before you start developing. It has to be planned. The navigation matters, and it is an element of design that is unique to eLearning. First, plan the navigation. All of the other layers will follow" (para. 11).

Planning the navigation though, requires a clear notion of the elements that learners will need to navigate to and from as well as decisions about the linearity or otherwise multiplicity of pathways that need to be available to learners. In the context of higher education, and particularly within cross faculty non-specialist language learning provision; self-directed learning, lifelong learning and flexibility are key notions in the value of the provision deployed, and as Martínez-Torres, Toral, and Barrero (2011) propose: "[a]t University, the use of [information and communications technology] should be focused on flexibility and self-management" (p. 280).

Both dimensions require the existence of flexible pathways which render the navigational design all the more complex. This flexibility is also related to learner difference and to learner motivation which are both crucial dimensions to consider when designing for language learning. As Hodges (2004) points out, such design requires one to

> "make an effort to [make] learners attribute their learning outcomes to the controllable and unstable construct of effort. Learners will have no motivation to participate in a learning experience, without the belief that change is possible. […] The [design] should allow for choice and self-direction" (pp. 2-4).

Our project focused on navigational design as the central pillar that could enable a positive engagement with Moodle along multiple pathways that individual learners could choose in order to remain sufficiently motivated to invest in successful self–directed learning to supplement face to face teaching. Without a clear navigational design, all such endeavours would lead to disproportionate and possibly unsuccessful orientation efforts that would inevitably undermine our learners' ability to engage.

3. Why students as designers?

There were three main reasons why the project team thought it essential to invite students to design the navigational framework of our Moodle pages, quite aside from the fact that few good products are designed without involving the end users in the process.

In the first instance, working with students allowed us to challenge our own assumptions and beliefs and it is in that sense that we sought to explore what they could bring to the project as change agents. Secondly, we were concerned that our own perceptions of a Moodle page's architecture might be partial and related to our own ability to read the web. Indeed, many of the Chinese websites our students prefer to refer to for language learning, appear impenetrable to even those of us who can read Chinese, as can be seen in the comparison between the two websites for learning French http://www.lepointdufle.net and http://fr.hujiang.com/. We were therefore keen to question the adaptability of the linear vertical navigation pathway offered almost as a default by standard VLE designs such as Moodle. We were keen to explore the principle according to which web-design has a strong cultural cognitive dimension. As Faiola and Matei (2006) point out,

> "researchers should move away from homogeneous design models and [… should] devise test models that can account for cultural cognition and the influence of cultural context on the cognitive style of web site designers" (p. 389).

4. The project and its outcomes

We worked with a team of eleven students around semi-structured workshops with a strong focus on visual design. Ideas were represented visually rather than verbally. We created 13 Moodle pages, three per language (three levels taught) and one for the project designed by the tutors' team and used for content delivery of training and for communication. Designs were submitted by the lead

designers as screencasts where they recorded a narration over their design and uploaded the files as Moodle assignments.

The student designs were closely connected to one another – although one used a 'collapsed topics' structure already in use for the module studied. They chose a horizontal rather than a vertical design structure, which enables a full view of all items in the first page, and opted for a hybrid model of content including both linear pathways and non-linear exploration (self-directed) and enabling clear navigation through the use of drop-down menus.

Subsequently the designs were presented back to the language centre team in a review meeting. One template was chosen (see Figure 2), simplified, deployed to all modules and used to develop our blended learning plan. This was met with strong enthusiasm from some tutors who were genuinely inspired by the student's work and by some reticence from a small number of tutors who were opposed to changing current practice. The majority of language tutors were keen to see Moodle reinvented through the eyes of students and to listen to their ideas as a means to boost learner engagement.

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