Designing a Self-Access Website of Pre-arrival Learning Resources to Support International Student Mobility

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Abstract:
Increasing student mobility has highlighted the challenges students face adjusting to new academic cultures when studying overseas. International students often become aware of differences in modes of study and academic expectation only after experiencing academic culture shock first-hand. This paper offers an insight into the design of a unique website which provides versatile self-access learning resources to help international students prepare for the academic skills they will need for study in the UK. Developed with the aid of government funding through the UK Council for International Student Affairs, *Prepare for Success* is an open website hosting multimedia learning resources, which are designed for self-directed use by students, and for blended use in teaching by institutions. The paper will firstly provide an overview of the pedagogic design of the website, and then present the findings from an evaluation of how the website is being received and used by different user groups.

Introduction

Increasing student mobility brings with it the challenges involved in educational transition. International students venturing to institutions overseas to receive part of their education can find themselves particularly challenged by the differences in academic culture they experience, and this together with second language and general acculturation issues, can impact on the student experience. In the UK, where last year there were over 104,000 international students studying in higher education (UCAS 2010), institutions receiving international students have been aware of this issue for some time and many have attempted to address it, in part, by providing preparatory information for international students through their websites, by email, or through induction courses when students arrive.

Opportunities for international students to engage with interactive web-based learning material to prepare for the transition *before* they arrive in their host country have been very limited until recently, although the potential benefits of such support have been widely recognised by UK institutions (Watson 2007). The development of an open web learning tool, *Prepare for Success*, supported with the aid of government funding through the Prime Minister's Initiative for International Education and the UK Council for International Student Affairs (UKCISA 2010) has allowed independent international students from 209 countries around the world to learn what will expected of them before they arrive in the UK. It has also provided teaching institutions with a ready-made resource for inducting their own international students into UK academic culture either before they come or when they have arrived. This paper will present the pedagogic design, development and different modes of use of the interactive learning resources hosted on this website, and evaluate website usage since its launch.

Overview of development

The Prepare for Success (PfS) website (www.prepareforsuccess.org.uk) is undergoing four phases of development, of which three have currently been completed. The first phase involved the development of a homepage hosting a

menu of 23 interactive learning resources, each of which introduces international students to aspects of academic life, study skills, and teaching and learning styles in the UK. These include items such as 'Ways of studying on your course'; 'Your relationship with your tutors'; 'Critical thinking' 'Academic writing at university'. Each of these resources is developed as a separate web page comprising an activity-based multimedia 'learning object' (LO). The 23 LOs form a single menu (Fig. 1). This format is designed to allow for both flexible self-access use by independent international students planning to study at UK institutions and provides an 'off the shelf' package for use by institutions from both Higher Education (HE) and Further Education (FE). Institutions can embed links to all or selected LOs in their own induction courses, setting them alongside their own institution-specific materials. This first phase of the PfS website was completed and launched in July 2008.

Figure 1: The Prepare for Success main menu page

Phase 2 developed two additional web pages. The first was a study pathways page allowing student users to choose a study pathway through the bank of learning resources selecting by either skill or by topic (Fig. 2). A further FAQs (Frequently Asked Questions) page was developed to provide interactive browsing of a bank of simple questions and answers about academic study in the UK. These were compiled with the help of experienced English for Academic Purposes (EAP) tutors and reflect many of the questions newly arrived international students ask about academic life at their chosen institution. Students use by selecting a set of thematic questions and their corresponding answers, using keywords in an interactive wordle. These are responsive to the number of times they are selected and change in size accordingly. Students can also select the most viewed questions at any time. A Web 2.0 'look and feel' was adopted for these two additional pages. For example, in the study pathways page the keywords used for pathway selection are responsive to user clicks and correspondingly increase or decrease in size, mimicking the effect of tag clouds. This second phase of the development was completed and launched in July 2009.

Figure 2: Study Pathways page allowing selection of learning resources by skill or topic

Phase 3, which was completed in April 2010, conducted an investigation into how UK institutions are using PfS. A downloadable guide to aid institutions in embedding and using PfS was also developed, and the accessibility of videos and audios in LOs was improved. A final phase due for completion shortly (April 2011) will add further browsable content through a web page addressing some of the specific needs of international students entering Further Education in the UK, and report on an evaluation of all usage of PfS including that by institutions overseas.

Design approach

The pedagogic basis for the activity-based multimedia 'learning objects' forming the core interactive learning content of PfS derives from a particular approach to online learning material development used at the University of Southampton. Since Wiley (2000:7) defined a learning object as 'any digital resource that can be reused to support learning', experimentation with the form and size (granularity) of learning objects has led to considerable variation in format and design (Polsani 2003) but it is commonly agreed that a desirable attribute of LOs is scope for reusability to offset the time and cost of their development (Wiley 2000, South and Monsoon 2000, Koper et al 2004). At the University of Southampton, Elanguages (www.elanguages.ac.uk), an eLearning research and development group within Modern Languages, has evolved a model for LO development which combines multi-media assets with an activity-based approach to learning and which also facilitates LO re-use. These activity-based LOs (Fig. 3) are designed to incorporate a particular pedagogic approach more suited to online learning:

- they contain activities which encourage 'learning by doing';
- they aim to engage the student actively in reflection;
- the activities allow for practice and production, and build on each other;
- activities are also personalised (learner-centred) where possible;
- they are enhanced with significant amounts of feedback (help, answers with explanations, review sections) which helps to support and drive students' learning.

(Watson 2010)

In order to offer scope for reuse these LOs are also self-contained and separable. In the case of PfS, the LOs offer scope for re-use by others in a particular way. They can be individually selected and linked to in any desired order for use through an institutional VLE, operating as versatile, additional course 'building blocks' for institutions' to embed in their own pre-arrival packages for international students. This is simply and easily done by copying the individual webpage address and inserting it as a link (Fig. 3) and is, indeed, being done by UK institutions.

Figure 3: Simple copying of individual webpage address embeds an LO in an institutional VLE

The LO resources in PfS were created using LOC (Learning Object Creator), an authoring tool developed in-house with a built-in template designed to guide teacher users in the development of activity-based LOs (Watson et al. 2008). The LOs contain audio and/or video clips of international students and UK tutors talking about aspects of academic life and the linguistic and academic challenges involved when moving abroad to study (Fig.4).

Figure 4: Part of an LO showing activity and video clip

The activities which focus on this multimedia content are designed to allow exploration of informational content, encourage reflection and opportunities for language development e.g. checking listening comprehension. The activities are also supported by help sections and feedback which extends beyond answers to include comment and explanation. This permits them to be used independently and flexibly by student users as content-rich learning resources. In this way, important information about academic culture and language practice are both delivered interactively and in a manner suited to student exploration. Some of the design features which facilitate this are:

- Optional student-activated help areas containing technical and pedagogic support for activities - for example, a transcript can be made available at this point to aid students with weaker listening skills or definitions of key terminology can be offered.

- Macromedia Flash - used to create many activities, and including self checking mechanisms. Further feedback is added to focus on activity content and this allows for a more complete answer, which includes comment and explanation. Scoring is also available with some activities.

- Video and audio transcripts attached with relevant parts highlighted to show answers to activity questions. These are offered post-activity offering closer study and repetition of activity by students wishing to focus on listening practice.

- A final review section offering a summary of the main learning point(s) and useful web links, where students can find additional practice and/or reference material online relating to the topic.

- Accessible versions of activities are available for those which require the use of a mouse, by means of an embedded link at the top of the standard version webpage. These alternative versions enable user interaction through the use of a computer keyboard in place of e.g. drag and drop exercises.

Evaluation of institutional use

From July 2008 until June 2009 an initial evaluation of UK institutional use of PfS was carried out. This used data collected in the form of web-hosted statistics and then for a further period of nine months (between July 2009 and March 2010) by means of Google Analytics. The latter involved the tracking of different parts of the website to identify the different access routes to PfS, and UK institutional users. From this, a list of institutions using PfS was compiled and, where possible, specific individuals within institutions were identified. An online questionnaire, created using SurveyMonkey software, was then emailed directly to c.100 identified institutional users (81 in HE, 18 in FE) to collect more information about usage and views of PfS. 27 responses were received from institutions from individuals with widely differing roles and diverse sectors within institutions: English Language Teaching (ELT) – Course Directors and Tutors, Student Support Services and Academic Skills Advisers, International Offices, eLearning Managers, Recruitment, Admissions and Assistant Registrars, IT coordinators, Information Accessibility Officers, Teaching Fellows, Lecturers and Principal Lecturers in specific disciplines. This wide-ranging response suggested that in most UK institutions there is currently no single department with overall responsibility for preparing incoming international students before they arrive. However, user responses provide an interesting overall picture of the various ways in which PfS is being made use of by UK institutions.

Among UK institutions, a link to the main menu page of PfS for their international students was the most frequent mode of use with 24/27 of the respondents indicating that they were already linking to the PfS website using one or multiple links. The range of institutional website locations to which the link are reported to have been added include: University (or college), academic school or individual department web pages; International student / international student support web pages; Student services and International Office web pages and other particular web pages (e.g. Foundation programme; recruitment; exams). This was confirmed by a detailed investigation of information yielded by the website tracking data. Some respondents also indicated that they were including the PfS homepage address as an active link in various forms of pre-arrival literature and communication:

- Confirmation emails to students entering institutions directly as well as in routine emails to students from pre-sessional course administrators
- Emails/information sent to recruiting agents worldwide (also in translation)
- Web-hosted welcome packs/ information in pdf format for their international students

This confirmed that easily created links to PfS were being put in place and revealed that this was occurring in a variety of digital texts as well as on websites. Of particular interest though was the extent to which institutions might view and/or adopt PfS as a source of supplementary building material for interactive learning tools aimed at their own international students.

In addition to institutions linking to PfS, a smaller but growing proportion of the respondents (particularly those from ELT departments) indicated that they were embedding PfS in a pre-arrival preparation programme for their international students. Some of these were still in development or pilot phase and insufficient detail was available to ascertain much about them at present. However, the following ways were cited as evidence of this form of use:

- In a pre arrival wiki - "this year we had over 100 mainly Chinese (students)"
- "(PfS) is included in our VLE for international students before they arrive, but the site is currently being piloted and hasn't gone full live. Student feedback so far is very positive."
- In a pre-arrival tutored course delivered to students through Moodle in summer 2010

It is unsurprising that use in this manner was still in its infancy. Very few institutions appeared to have actively implemented explicit forms of pre-arrival preparation of their international students in practice even though the benefit has been recognised for some time (Watson 2007). As well as requiring a culture change and the commitment of limited and already stretched resources to planning and creating the means by which to do this, there

are considerable practical barriers within institutions to doing this. As one respondent indicated: "(We have) nothing in a VLE for pre-arrival because our pre-sessional students have to wait for Uni IT registration". Nevertheless, the signs are that pre-arrival preparation is starting to be more actively adopted in institutions. Respondents indicated that planning, development and piloting are taking place in their institutions and that they are exploring various emergent technologies on the web. PfS is flexible enough in format to support institutions in doing this, and it can work in conjunction with a number of approaches as its early adopters have already demonstrated. Recently, informal evidence points to growing institutional take-up of PfS, especially thorough its embedding in web-hosted pre-arrival preparation packages. At least a dozen institutions launched such resources for their incoming international students over the summers of 2009 and 2010 and more look likely to follow.

Use of PfS as part of an institutional post-arrival programme poses none of the practical issues of access and delivery for institutions that pre-arrival can. Survey respondents gave examples of implementations in pre-sessional and other post-arrival induction courses for their international students:

- "…it's used on a pre-sessional course to familiarise students with living and studying in Britain. It's used both in the classroom and is accessed by students independently. It's made available in this way to 200 students"
- "…available on VLE for students to access as they wish for independent study. c.80 students"
- "Some of the (web) pages are embedded into year long full-time WebCT (a VLE platform) areas."
- There is a link to PfS from the front page of our VLE, which is accessed by all of our college staff and 2000 students (up to 1000 are international or have English as a second language)
- "I use links to parts of it during our pre-sessional course as part of our Guided Independent Learning Programme"

As well as embedding PfS in VLEs for post-arrival use, the resources are also being used in taught programmes, as support study content for a course, in the classroom and on web pages with an induction purpose. Some of this is reported as being available year round for students to access. Other respondents indicated that they have plans to embed in this way or are still in piloting phase with various developments.

The survey sample provided a snapshot of institutional take-up of PfS in the UK in the middle phases of its development, and confirmed that over much of the UK, pre-arrival induction of international students was still at a relatively early staqe of development or in pilot phase. Since that time more institutions can be seen to be increasing the range of mechanisms through which they support international student transition, especially through open or password protected pre-arrival induction websites for their international students. Alongside this, institutional inclusion of of PfS is continuing to grow too. Very positive feedback has been received from institutional users, but while they may recognise its affordances, practical issues of time and limited human resources are delaying implementation in some cases.

Evaluation of independent student use

A large number of international students are using the PfS website independently. Usage statistics for the website have been collected monthly since its launch and show access by users from 209 different countries/domains with the number of visits since its launch in July 2008 estimated to be over 300,000. These monthly website usage statistics enabled us to build a picture of use together with website feedback forms from 174 students, who provided details about themselves, their study plans and their views concerning the learning resources. The feedback from individual students indicates their present distribution across the world (Fig 5).
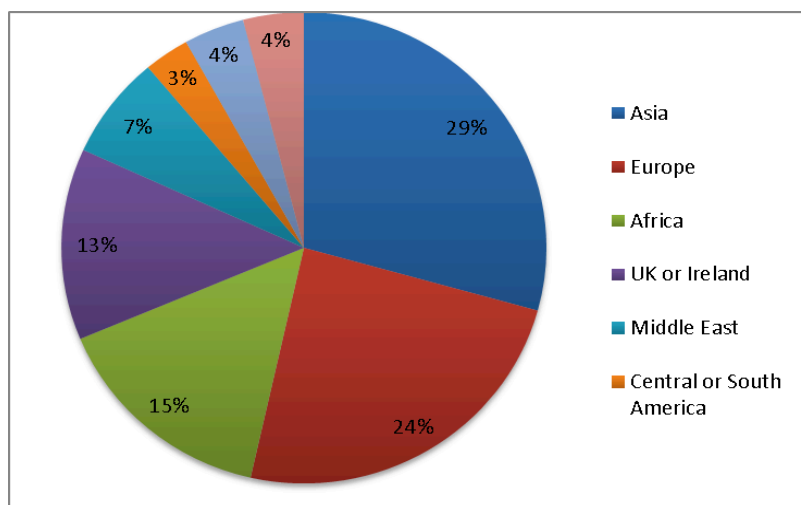
Figure 5: Distribution of students submitting feedback

This widely spread distribution of student respondents is reflected in data yielded through website tracking. Although this data reveals the top four countries where users are located to be UK, China, India, and USA (generally, but not always, in that order), a comparison of the remaining countries making up the top ten countries reveals considerable change. In fact, a single monthly sample taken over a six month period shows twenty different countries occupying changing positions in the top ten (Table 1).

	Jun 2010	Jul 2010	Aug 2010	Sep 2010	Oct 2010	Nov 2010
1	UK	UK	UK	UK	UK	UK
2	China	China	China	China	Vietnam	China
3	India	India	India	Vietnam	China	USA
4	USA	USA	USA	India	Russia	India
5	Pakistan	Italy	Vietnam	Russia	USA	Vietnam
6	Vietnam	Vietnam	Italy	USA	Spain	Netherlands
7	Thailand	Pakistan	Germany	Germany	Hong Kong	Germany
8	Taiwan	Malaysia	Nigeria	Italy	Netherlands	Pakistan
9	Netherlands	Germany	Hong Kong	France	India	Nigeria
10	Russia	France	Romania	Romania	Taiwan	Kazakhstan

Table 1: A comparison of the top ten countries from which visitors accessed PfS over the last six months

These fluctuations are also evident in monthly statistics collected since 2008 and multiple changing variables are almost certainly influencing them. Moreover, the number of website visits is still increasing. Monthly numbers of website users have increased by more than a third, year on year, reaching a peak at 19,000 in August 2010 (Fig.6). They only started to fall off in the last three months reported although they are still increasing compared to the same month in previous years.

Figure 6: Comparison of monthly visits to PfS website since launch and between 2008-09, 2009-10 and 2010-2011

Data concerning students future plans is also slowly emerging. 71% of students returning the website feedback form responded indicating by name the institution at which they would be studying while 26% indicated that they were still undecided about where they would be studying or d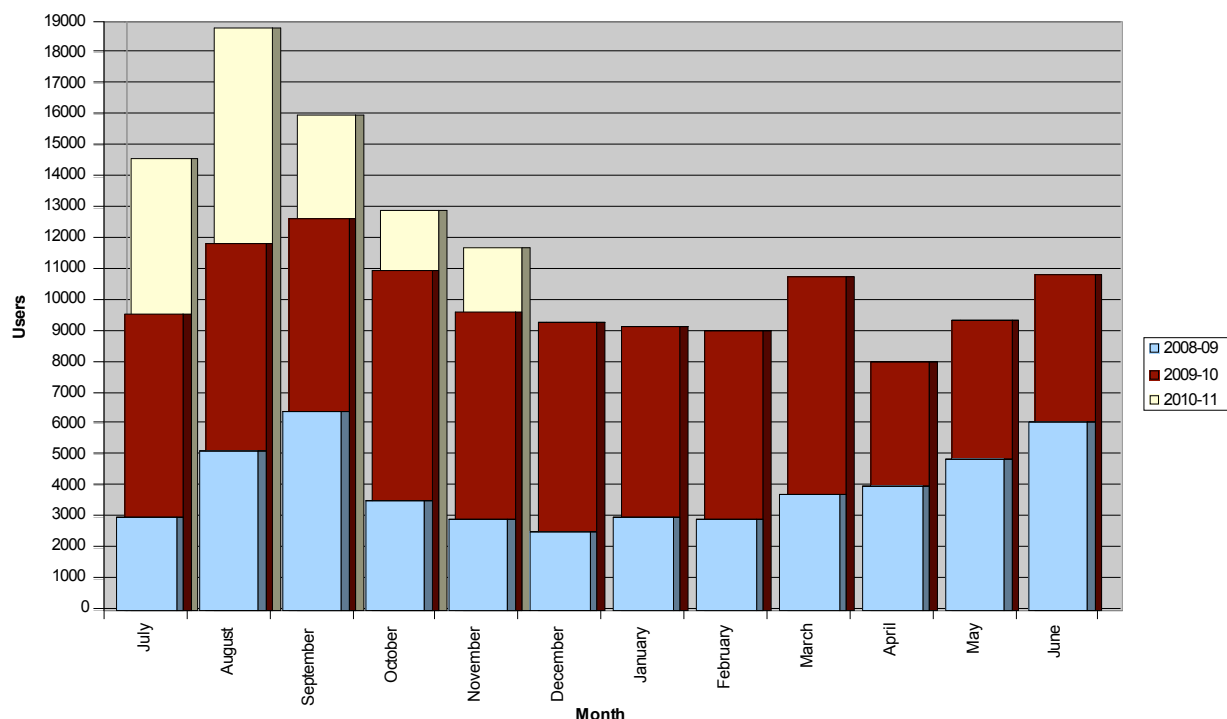id not provide the name of a destination institution although they had specified their subject area. Their responses revealed that they were planning to study in a wide range of subject areas and at different levels. These students also report a variety of discovery routes to PfS with 33% finding it through a link from their chosen university in the UK; 25% through a link on the UKCISA or a British Council website; 19% finding it by chance when searching the internet for information; 11% from someone in their own country and 4% through a website link to it elsewhere. Website statistics for one sample month (May 2010) show that the interactive learning content (LOs) accessed via the main menu or through the study pathways received four times as many visits as the FAQs page and other parts of the website, suggesting that the richer learning content of these resources and their use of multiple media is particularly attractive for students. Students commend the resource (83% of students also 'strongly agree' or 'agree' that the resource 'has helped them get ready for coming to study in the UK') and their further comments focus largely on the usefulness of the LOs:

- "I really liked it, especially the videos. It was helpful to have the UK learning style explained, together with the differences between tutorials, seminars etc. for me (…) like the ways of addressing your tutor – were particularly important…"
- "It has been extremely useful in getting ready for studies in the UK. It has highlighted topics that are usually not thought about or ignored."
- "A very good tool that gave me the answers to a lot of questions."
- "Prepare for Success is a brilliant resource for international students who want to study in the UK"

A detailed analysis of the particular pathways taken by students and modes of use is planned once the website has been fully developed and a more stable picture of use has emerged. Observations of students engaging with the learning resources were conducted in a blended learning environment during pilot phases of development and an additional part of later evaluation will focus on observing students using the resources as part of a post arrival induction programme. This should add a level of understanding about usage that website tracking cannot provide.

Usage by international students based in the UK and/or UK institutions has, on average, comprised 42% of the overall number of visits to the PfS website since its launch but this is subject to variation according to the time of year ranging from 29% to 87% (monthly) with higher UK usage, interestingly, occurring during October and November (soon after 'direct entry' as opposed to pre-sessional course students have arrived at their institutions). Moreover, statistics reveal that, on average, a third of students come to PfS through a UK referring institution. Referrals from other websites and through social media links to PfS are also steadily increasing. A wide range is represented (Table 2).

Referrer groups	Examples
UK educational institution website	Universities, FE colleges, secondary schools, private colleges
British Council websites	Education UK; Education UK China, Hoa Hoc Tro (Vietnam)
Educational and other web-hosted media	Wikis, forums, VLEs, blogs, message boards
Social network sites	Facebook, Twitter, YouTube, Nings, Blip TV, Delicious, Digg, Wikipedia.
Country–specific portals	Wretch & Yam (Taiwan); Xici. & Sina (China); Anglie (Czech) Net.hr (Hungarian), Znaniye (Russian)
Google and other search engines	Yahoo, Bing
Websites of educational institutions outside the UK	Universities and equivalents, ministries of education, government sponsored orgnaisations
Websites of non-teaching organisations and private groups focusing on education and/or international students	UKCISA, UCAS, BALEAP, HEA Subject Centres, EAP World, Erasmus Mundus, publishers, newspapers online

Table 2: Range of referral sources for PfS visitors

During one month (May 2010) 72 of 115 referring websites were identified as UK institutions. In addition, a further 6 were educational institutions in various locations overseas - Spain, Italy, France, Belgium, Australia and Chile. These referrals suggest that PfS is also beginning to be recognised as being a potentially useful resource by overseas institutions, possibly which are sending students to the UK. This is supported by feedback received from a small number of overseas institutions via the website.

Conclusions

This paper has presented an interactive web learning tool that is being developed explicitly for international students coming to study in the UK and for the institutions receiving them. It has also referred to and evaluated some of the initial data that has been gathered relating to website usage. Clearly, there is much more research that can be done through the site once the development phase has been completed. PfS appears to be a quite unique tool and both international students and those particularly involved with international students in UK institutions have shown considerable enthusiasm for it. Initial research has shown that UK institutions are promoting it to their students widely though a variety of means and that a number have plans to embed it more deeply into teaching and learning programmes in the future. Unexpectedly, it is also receiving some attention from others in the educational sector (language schools, and those responsible for study skills for English native speakers) in addition to institutions overseas. This interest highlights the fact that support for transition is widely recognised as being important in a world in which student mobility is increasingly part of the educational experience. PfS aims to offer some support to both independent students and the institutions preparing them for the experience of study in a different academic culture, and it is hoped that it will continue to ease the transition of its international student users.

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