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InForm

A JOURNAL FOR INTERNATIONAL FOUNDATION PROGRAMME PROFESSIONALS

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Technology enhanced learning on the IFP

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InForm

InForm Conference 2016

Working with Words:

Supporting understanding of discipline-specific vocabulary in IFPs.

We are pleased to announce the seventh annual InForm Conference will take place at Durham University.

The event will include presentations and posters on themes related to international foundation and pathway programmes and provide an opportunity for interaction and sharing of practice with colleagues from the IFP community.

Saturday 16 July 2016

Durham University

Durham University
Lindisfarne Centre, St Aidan's College
Durham

Conference fee: £60

Registration:
Please check our website for details:
www.dur.ac.uk/conference.booking/details/?id=520
or email: inform@reading.ac.uk or inform.conference2016@dur.ac.uk

Speaker Proposals:
Speaker proposals are invited from professionals involved in the delivery of international foundation and pathway programmes. As usual, the focus should be on issues associated with teaching and learning in this sector and address the conference theme. Sessions need to appeal to tutors and course managers across the curriculum.

The deadline for speaker proposals is 30 April 2016.

Dr Mark Peace
Chair of the InForm Editorial Board

Welcome

FROM THE EDITORIAL BOARD...

Following the highly successful 2015 InForm Conference on *Technology enhanced learning on the IFP,* this issue features articles from various conference speakers.

Our first keynote speaker of the InForm Conference 2015, Dr Paul Thompson, begins by presenting the benefits that corpora can bring to international foundation programmes and discusses various online applications that now make them easier than ever to use. Professor David Nutt then shares his experience in using screencapture to create online video material for the 'flipped classroom' and discusses how to use it effectively. In the article by Hannah Gurr we learn about both high and low tech ways of randomly inviting student participation in the classroom. Encouraging students to respond in class using their personal electronic devices is the focus of the article by Tilo Wodzinski and Mei Leng Chang.

We then have an article by Kathryn Redpath, who did not speak at the InForm Conference 2015, but presents discipline-specific EAP. This very much feeds into the theme of the next InForm Conference in Durham in July 2016: Supporting understanding of discipline-specific vocabulary in IFPs. Dr Sarah Henton then reports on how her use of electronic resources in a Virtual Learning Environment enables monitoring of student participation. Dr Meiko Murayama reports on a Blended Learning project which incorporates a number of new technologies. Dr Tatyana Karpenko-Seccombe provides a practical approach to incorporating corpus analysis into the classroom through computer programmes. Finally, Victoria Mann argues that assistive technology designed for people with disabilities also has applications in assisting learning on international foundation programmes.

We now look forward to the InForm Conference 2016 in Durham on July 16 and hope many of you will attend. We also encourage you to send in proposals for presentations, workshops and posters. To submit an article or letter for the next issue of InForm please email it to inform@reading.ac.uk or see p23 for further details.

InForm

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Editor Dr Mark Peace

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The potential for corpus enhanced learning on the IFP

ABOUT THE AUTHORS

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For a long time, corpus tools, resources and techniques have been restricted mainly to the domain of academic linguistic enquiry. This was partly because corpus development used to be a labour-intensive endeavour and also because the tools were difficult to use and technological options were quite restricted. In the last ten years, however, masses of data have become available on the Internet, freeware and accessible tools have been developed, and corpus-based inquiry is becoming the norm in EAP research.

Corpora can be used in the classroom as a rich source of information about how language is used in specific contexts, such as in studying a particular subject at university. I'd like to suggest that corpora can be used both by teachers and by learners on IFP programmes, to find out about frequencies of occurrence, about how words are used and the typical environments they can be found in, and they can also be used by syllabus designers, materials writers and language testers.

Looking at corpus data requires a shift in thinking about how to learn a language. In the past, I found that some learners couldn't see the point of looking at a series of concordance lines and being asked to notice patterns for themselves - these kinds of investigations didn't match up with their previous experiences of learning, and so they reacted (in some cases) negatively. I now like to introduce a corpus-assisted approach by asking learners to look at, first, one photograph of a bird - for example, a nuthatch - and ask them to use their powers of observation to tell me what they can about the bird, and then I show several more photographs of the same species of bird and ask them to expand their description of the bird. Gradually we build up a picture of the characteristics of the bird, the typical environments it inhabits, its relation to other creatures, and so on. This activity helps them to see that learning about words can, by analogy, be a case of making observations about the behaviour of words or phrases, the likely environments in which you will encounter them and so on. Inductive learning is nothing new but we have not always viewed language learning in this way, so we have to step back first and see what it is that we are going to do.

Corpus linguistics evolved in the sixties, over fifty years ago, and for many years access to the data and to the tools used for analysis was pretty much restricted to universities and to linguists. I remember that when I first became interested in corpora, in the early nineties, access to large corpora was limited and costly and that most interfaces had a steep learning curve. Now, however, there are plenty of web-based interfaces that can easily be accessed through the internet, on laptops or mobile devices, and there are programmes such as Laurence Anthony's AntConc which are freeware, easy to use and regularly updated. Let's consider a few examples.

With Hilary Nesi and other colleagues, in the noughties, I worked on two academic corpus projects: the British Academic Written English (BAWE, pronounced as 'boar') and British Academic Spoken English (BASE) corpora. The BAWE corpus contains 2761 pieces of proficient assessed student writing, fairly evenly distributed across 35 disciplines and four levels of study (undergraduate and taught

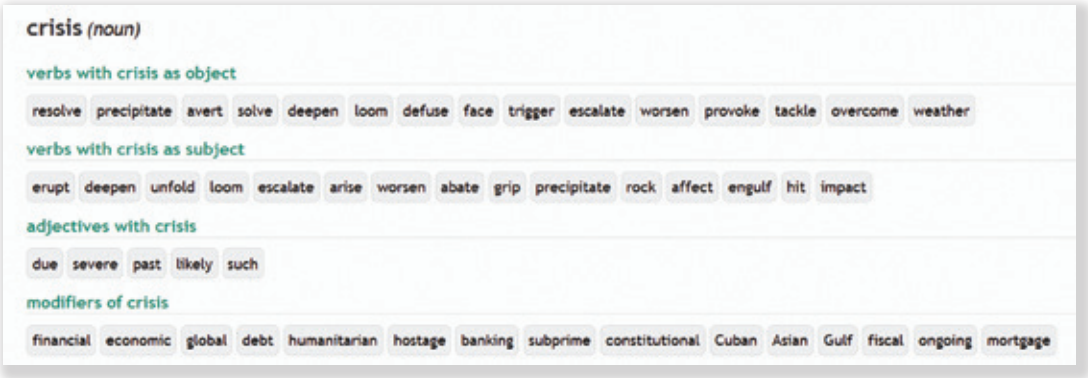

Figure 1: Screenshot of the results produced by the web resource SKELL for the noun 'crisis'.

masters level), and the BASE Corpus consists of the transcripts of 160 lectures and 40 seminars recorded in a variety of departments at the Universities of Warwick and Reading. Both of these corpora can be accessed for free through the Sketch Engine interface (under the heading 'Open corpora') and they allow searches of written and spoken academic discourses by discipline, and by genre. They provide evidence of how language is used in specific academic contexts.

The Sketch Engine team has recently created an excellent new web resource for language learners called 'SKELL' (Sketch Engine for English Language Learners). The interface is simple with a single box in which users can type a word or a phrase, and then view a set of example lines, a list of similar (including opposite) words or a word sketch. The idea of the word sketch is taken from the tool developed by Sketch Engine for lexicographical work, but the tool presented in SKELL is a simplified version that shows the typical words that feature with the specified word in a grammatical relationship, such as the adjectives that pre-modify a noun, for example. The results for the noun 'crisis' are shown in Figure 1, the screenshot on the page 4. Clicking on any of these words will then call up a page containing up to 40 example lines – clicking on 'resolve' will bring up a set of 40 sentences, such as 'Only a political solution will resolve this crisis .' This type of information can be used by a student writer when writing an assignment about crisis management, for example, to help them to find ways to expand their range of options for how to talk about crises. Where a thesaurus can provide loose synonyms for a word, this resource offers synonyms, antonyms, collocates and access to a reasonable number of attested examples.

Mark Davies' 450 million word Corpus of Contemporary American English (COCA) site contains, among many other things, a section called 'Word and Phrase.info' where learners can paste in texts and then investigate them. The tool analyses the text and re-presents the text with colour coding so that the words are shown according to their frequency level, as determined through matching to Gardner and Davies (2014) new academic vocabulary list. It also shows the relative frequency of a word in the spoken, fiction, magazine, newspaper or academic sections of the whole corpus, along with definitions (taken from Wordnet) and collocates.

The resources that I have described so far are large corpora, pre-processed and fixed. Language teachers and learners may, however, want to explore uses of language in their own collections of data. Laurence Anthony's set of corpus tools, all of which are freeware and available for use on Windows, Mac and Linux platforms, make classroom investigation of textual data both a reality and a relatively simple task. AntConc contains a set of corpus analysis tools that provide, for instance, word frequency information, sortable concordance lines and collocation measures. The basic functions of the programme are easy to learn but power users can also exploit a range of more sophisticated options if they want to. Other programmes are available on Laurence Anthony's website, including the AntFileConverter. This programme converts Word and PDF documents into the text file format (more specifically, text with UTF-8 encoding) that AntConc requires. The tools that teachers and learners need are now available and potentially in their hands!

From what I have said so far, it would seem that corpora are of value only to teachers and learners, but they can also provide valuable evidence and samples for materials writers, syllabus designers and test developers as well. A collection of representative texts (that is, texts that the learners may have to produce or to understand, in future) can be collected and then analysed in order to determine which grammatical and lexical features to include in materials or teaching, and the same collection can furnish sample sentences and items for use in materials or tests.

Corpus investigation does require a different way of looking at language. For novice users, there is invariably a period in which the user makes generalisations that are not justifiable because the corpus that they are using (the evidence base) is too limited, or they ask questions that are not appropriate. What this suggests is that users need training not only in how to use the tools but also as a form of awareness raising, which will help them to think about the nature of the evidence that they are looking at, the kinds of questions that can be posed and the reasons why one might want to pose those questions. If we observe a nuthatch and ask questions about birds in general then we might be asking the wrong questions, but if we ask questions about nuthatches in general and about birds that dwell in woodlands then we might reach more meaningful and applicable conclusions. Corpora after all are simply evidence and the evidence must be appropriate to the claims we wish to make. The right sort of evidence, though, properly evaluated, is a powerful tool in learning.

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SKELL:

https://skell.sketchengine.co.uk/run.cgi/skell

Sketch Engine:

Kilgarriff, A., **Rychly, P.**, **Smrz, P.**, **Tugwell, D**. (2004). The Sketch Engine. Proc. EURALEX 2004, Lorient, France, pp. 105–116 http://www.sketchengine.co.uk

Using screencapture to implement the 'flipped classroom'

ABOUT THE AUTHORS

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The 'flipped classroom' is a pedagogical approach that involves moving delivery of content from the classroom into students' own time, freeing up valuable contact time for active learning, such as worked examples and classroom discussion. Screencapture is one easy way of preparing material for a flipped approach. The GRASS project at the University of Reading is supporting academics who wish to adopt screencapture in their own practice.

Introduction

Do students really learn in traditional lectures? Is delivering content at the front of the lecture theatre the best way of helping students learn? Could this time not be used more effectively? If you have ever asked yourself any of these questions, perhaps the 'flipped classroom' could help.

Widely attributed to Bergmann and Sams, two secondary school teachers in the US, the 'flipped classroom' involves shifting the content delivery part of teaching to students' own time, to be done before coming along to a class. The idea is that students take responsibility for their learning but are allowed to do so at a time and in a place that suits them (Bergmann and Sams, 2012).

These ideas aren't necessarily new, however. Pre-seminar reading in the humanities has a long history and could be seen as a form of the 'flipped classroom'. However, digital technologies such as video-sharing websites, virtual learning environments (VLEs) and widely available screencasting software have made this approach more accessible. Students can now watch pre-lecture screencasts on their smart-phone, tablet or computer wherever and whenever they wish.

What is screencapture?

Screencapture, sometimes known as screencasting, video-podcasting, or vodcasting, involves using inexpensive or even free software to record what is currently being shown on a computer screen. The recording is typically supplemented by audio narration that can be recorded synchronously or asynchronously, and many users also choose to include a small video window showing the person making the screencast (a "talking head") to give it a more personal touch. Screencapture is a quick and straightforward way of generating good quality videos that can be shared with a global community of students on open platforms such as YouTube, with closed cohorts of students via VLEs such as Blackboard, or directly with individual students via e-mail (Read and Lancaster, 2012).

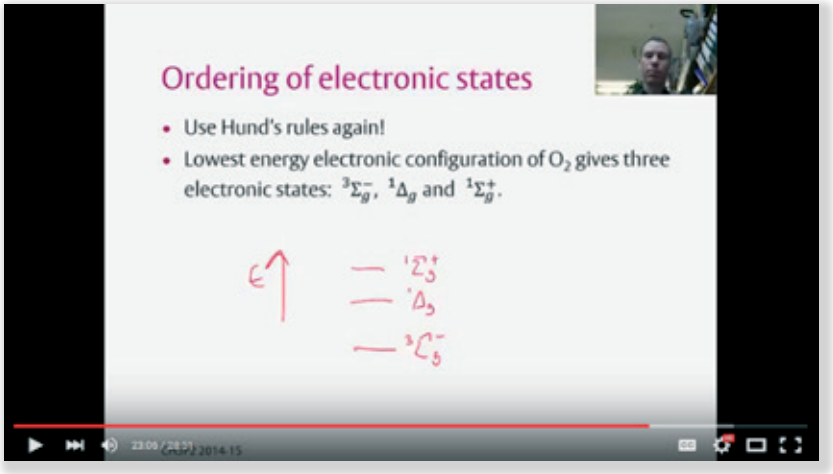

Figure 1: A screenshot of a PowerPoint screencast from YouTube including a "talking head" and recorded using a tablet computer and stylus for real-time annotation

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Read, D. & **Lancaster, S. J.** (2012). Unlocking video: 24/7 learning for the iPod generation. *Education in Chemistry,* July 2012, p13.

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Using screencapture for the 'flipped classroom'

Often lecturers will use PowerPoint slides or a Prezi in lectures. These can very easily be converted into screencasts (Figure 1) using software such as Jing (**https://www.techsmith.com/jing.html**, free) or more powerful and versatile software, such as Techsmith's Camtasia Studio (**www.techsmith.com/camtasia.html**, just over £100 for an academic license for two computers, or can be downloaded for a free one-month trial). The latest Microsoft Mix add-in for PowerPoint can also be used to create screencasts. Adding subtitles is straightforward, if required. Screencasts can be enhanced by a talking head, which is easily added using a web-cam, and screencapture using a tablet computer and a stylus adds the possibility of annotating slides and documents in real time. If possible, it is worth purchasing a good-quality USB condenser microphone, as the audio quality is significantly enhanced over most built-in microphones.

When delivered alone in an office as opposed to in front of a lecture theatre of students, a 50 minute lecture typically reduces to a 15-20 minute screencast. Anecdotal evidence, however, suggests the optimum length of a screencast to be around 4-5 minutes, so it may be worthwhile breaking up a lecture into smaller, bitesize chunks.

Once prepared, the screencasts can be made available to students as and when appropriate. It needs to be made clear from the outset that watching the screencasts is not optional. This can be enforced by tracking views within the VLE, or setting a short pre-class quiz that the students must complete after watching the screencast and before the class (Bates and Galloway, 2012).

One advantage of setting a pre-class quiz is that the instructor can ask for feedback with a question such as "After watching this screencast and completing the quiz, one or more aspects that I am unsure about are:", followed by a free-text response. This allows the instructor to identify the areas that students find difficult and prepare appropriate worked examples, which can then form the basis of the classroom session, in a so-called 'just-in-time teaching' approach.

Why use the 'flipped classroom'?

Students really seem to engage with screencasts and the 'flipped classroom' approach. It is still not yet clear that this approach leads to learning gains compared to more traditional pedagogies. However evidence strongly suggests that it provides additional support for weaker students (who can watch and re-watch the screencasts at their own pace) while not holding back stronger students (Seery, 2015). For the same reasons, this approach can be beneficial for international students with English as a second language.

Because of the additional independent study required, it is not possible for entire courses to be delivered in this way. As always, instructors should consider the pros and cons of different approaches and choose the most appropriate pedagogy for their material. Although not a magic bullet, the 'flipped classroom' is a useful addition to a teaching toolkit.

What is the GRASS project?

GRASS (Generating Resources and Access to Screencapture Software) is a two-year project at the University of Reading, supported by the University's Teaching and Learning Development Fund, and is encouraging and supporting staff who wish to use screencapture in their own practice, including for the 'flipped classroom'. The GRASS project has a website at http://blogs.reading.ac.uk/grass, which includes a blog, examples of screencasts from a range of subject areas and links to a wide-range of resources.

Randomizing the classroom: ways and whys

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Teachers use a significant amount of their time in class asking questions. Who answers? Some students switch off and opt out, while others take part, even dominate. One way to mitigate this is to nominate students to answer and teachers may have sound reasons for their choices. However, it is all too easy for teachers to focus on certain class members and ignore others; humans aren't good at choosing at random. Allowing students to choose whether they participate widens the achievement gap. This article presents low- to high-tech randomizers that teachers can use immediately to help boost student engagement.

In a typical IFP classroom, teachers routinely engage in questioning, eliciting and prompting in a variety of classroom contexts and phases: a question posed in open class feedback; an individual asked to read learning aims off the board or summarise lesson content. Uptake is typically variable – there may be little response at all, or only a sub-set of students will answer regularly. The risk here is of students opting out, and of teachers failing to give equal attention, and opportunity, to all class members. While there may sometimes be sound pedagogical reasons for nominating a given individual, teachers are only human, and, as such, creatures of habit. With this in mind, the act of choice of respondent might usefully be assigned to a randomizing device. This article presents a range of readily usable randomizers to IFP tutors that enhance equity of opportunity, thus helping to boost student engagement and achievement, while also forming part of a repertoire of formative assessment strategies.

In *The Classroom Experiment* (2010), Professor Dylan Wiliam recommends that teachers write students' names on lollipop sticks, keep them in a mug, and, having asked a question, pull out a name at random to respond. The context here is that of formative assessment, though there are other contexts and motivations for deploying such a strategy. A box of 100 tongue depressors only costs around £2, but the appeal is not only economy but also flexibility: absentees' names can easily be removed until they reappear in class; drawn out sticks can be left out if the wish is for each class member to contribute only once, or go back in the mug if all are to be always potentially 'on call'. For variation or pace, students may be asked to draw the names, some teachers even select two at a time.

There are two other randomizers involving use of an interactive whiteboard (IWB):

- Open SMART Notebook and browse Gallery by clicking the framed picture icon;
- A search for 'random' will bring up 'Random word chooser';
- Drag to main screen, re-size, choose 'No. of names', input student names (option: choose 'No repeat');
- Click on 'Select'.

This is a fun and visual way to demonstrate a randomizer to students. If this software is not available, go to **www.classtools.net** and use Random Name Picker. One drawback of using the IWB screen is that it cannot display the task being worked on at the same time. The audio might be dispensed with after the first few selections. And since the Random Name Picker takes nearly ten seconds to complete a spin, clicking on the wheel could be simultaneous with the question prompt.

My preferred randomizer is an iPhone app:

- Open the App Store and search for 'Randomly' or 'Mario Guzman';
- Tap + to enter a class name, then add students' names;
- Randomize by tapping either 'Uncalled' or 'Anyone'.

A white progress line moves across the top of the screen, so if tapping 'Anyone' means some students are left out for too long, moving to 'Uncalled' ensures that each student is nominated. The advantages are that students must stay alert at all times as they cannot be sure whether 'Anyone' or 'Uncalled' will be tapped. With the sound off, it is discreet, so students will not be alerted if the teacher skips over the least able student to perform a certain task. Disadvantages include running down the phone battery, and the potential

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Randomizers / All student response systems:

- Tongue Depressors / Lolly Sticks
- Random word chooser, SMART Notebook
- Random Name Picker www.classtools.net/random-name-picker/
- App Store: Search for 'Randomly' or 'Mario Guzman'
- Mini whiteboards
- *Socrative* www.socrative.com

annoyance of having to keep skipping through a class list in cases of substantial student absence; however, inputting names is quick so an ad hoc group could be set up. Teachers without iPhones could use a random number generator and a class list instead.

Having looked at various randomization devices, let us consider the potential benefits of using one. It may:

- reduce the cognitive load on the teacher, who is then freer to focus on other aspects of classroom management;
- accelerate learning of students' names – the first step in building up a mental profile of each class member;
- reduce the likelihood of students feeling overlooked or picked on as the teacher is more able to 'treat them all the same' (Biggs & Edwards 1991);
- get teachers out of typical 'action zones' (Farrell, 2011) they may tend to gravitate towards;
- guard against any unwitting favouring of certain students;
- enliven a reticent class.

On the last point, reports from colleagues and students from the Far East indicate that the classroom environment is one where participants are expected to be modest, and not show off or stand out (by being worse or better than others). When the teacher asks the whole class a question, many may be confident of, but not see fit to volunteer, the answer. Finally, use of a randomizer can help show that engagement is non-negotiable; however, this does need to be in conjunction with a learning environment where it is safe to be wrong. Some teachers have tried telling students: 'OK, you don't know, but what would you say if you did?' (Wiliam, 2011:84) Randomizers also work well combined with the pose-pause-pounce-bounce technique:

- Pose: ask the whole class a question;
- Pause: give students crucial thinking time;
- Pounce: nominate a student at random to answer the question;
- Bounce: after acknowledging, without evaluating, choose another (at random) to comment on the answer given.

Research suggests a correlation between increasing wait-time and lengthening of student responses, increase in student-student interactions and student-initiated questions (Farrell, 2011). Raising awareness of these methods could also be part of learner training, so students realise that interactions do not have to go through the teacher. The randomization technique also allows for the teacher to hear from one or two students at a time. There are ways of gauging whole class response, including having students write their answers on scrap paper or mini whiteboards and hold them up to be checked; alternatively online/mobile app tools such as *Socrative* (**www.socrative.com**) can be used.

Whilst most IFP teachers would recognise that a classroom approach to selection largely responsive to volunteers, whether shouting out or hand-raising, is not conducive to all-class engagement, classroom practice does not generally reflect this. Relatively little attention is given in teacher training or induction to techniques (such as randomizers) which engage the entire student body. At the same time, many teachers do intuitively seek to promote student engagement, presumably on the basis that increased student engagement improves student learning; it is worth noting that the link between the greater engagement which randomization would help achieve and better academic performance is supported by research (e.g. Skinner et al, 1990). When looked at from an assessment perspective, randomizers are one of the 'all-student response systems' identified as integral to successful formative assessment, i.e. as well as engaging the entire class, they also provide the teacher with evidence whether each student is learning what he/she is teaching.

A preliminary study on perceived effectiveness of *Socrative* as a classroom response system (CRS) in foundation studies

This paper describes preliminary research on usage of the free web application Socrative as a virtual classroom response system on the Foundation in Business at University of Reading Malaysia (UoRM).

As previous research suggests, engagement levels directly correlate with learning outcomes, therefore tools to increase students' engagement will have a positive impact on their academic performance.

Findings from this survey's responses indicate a positive correlation between students' experiences and perceptions about the use of Socrative and its impact on their engagement levels, therefore suggesting virtual classroom response systems can be useful tools for educators.

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Introduction

Over the last decades, advancements in technology have had an irreversible impact on the availability and prevalence of technology enhanced learning in Higher Education. Classroom response systems (CRS) were introduced in universities as early as the 1960s (Crane, 1961) and enable instructors to poll students on questions and receive immediate feedback. Once rudimentary technology to provide simple forms of feedback to instructors, these tools have evolved over time into modern, more flexible and partly software-based virtual CRS. While the original purpose of receiving instant feedback from students remains, these next generation CRSs *(e.g. Socrative)* are based on student-owned mobile devices, therefore offering additional functionality and overcoming some of the limitations of formerly used, so-called clickers. Although numerous studies exist about the effectiveness of clickers or audience response systems and their positive effect on student engagement, most of these are with students in science-related fields of undergraduate studies. There is a lack of research on both software-based CRS in general and in the social sciences at pre-university level in particular. The purpose of this preliminary study is to investigate the perceived effectiveness of using *Socrative* as a virtual CRS during lectures to increase levels of student engagement in the context of a Foundation in Business Programme (FiB) at a British University in Malaysia.

Literature Research

Research on teaching effectiveness, demonstrates that increasing student engagement is considered to be a significant contributing factor to academic performance, with evidence indicating student self-reports of engagement levels are mostly valid (Carini, Kuh & Klein, 2006). A more interactive and therefore engaging learning process can therefore positively impact engagement and consequently improving learning outcomes.

Over the last two decades numerous studies on the usage of clickers in a variety of academic disciplines and settings have shown their positive effects on learning and engagement levels (see Caldwell, 2007; Kay & LeSage, 2009). Most notable is the comprehensive approach of "teaching by questioning" by Mazur at Harvard University, which conclusively established evidence for the important role of clickers in facilitating engagement levels and in positively impacting on students' academic achievements (Mazur, 1997).

Although criticism exists on the feasibility and most prominently on the cost-effectiveness of clickers (Bugeja, 2008), the positive impacts on the learning process in academia has not been scientifically refuted. With the advent of free of charge virtual CRS (e.g. *Socrative*), cost is no longer a barrier and a study in 2013 indicated comparable effectiveness between virtualized, clicker-like tools based on student-owned mobile devices and more traditional clickers (Koppen, Langie & Bergervoet, 2013).

Research Methodology

For the purpose of this project, a cross-sectional survey was conducted among students in the FiB at the University of Reading Malaysia. 62 mostly ethnic Chinese students of 2 different cohorts used *Socrative* at least once per week in both their Business and Economics modules for over 10 weeks. In this timeframe a variety of open and multiple-choice questions were answered by students on their mobile devices during and after lectures.

After the 10 week period, a questionnaire with 10 questions and answers on a 5-point Likert scale was administered. The gathered data was analyzed by using descriptive statistics of frequencies, means and standard deviations. Furthermore, an independent t-test was used to investigate gender differences.

Results and discussion

Cronbach's alpha (a) as a measure of internal consistency of the questionnaire was determined at a value of 0.828 over the 10 items, indicating sufficient reliability and good internal consistency for this survey.

Based on the sample, which contains 28 male and 34 female students, the findings of the survey indicate no significant gender differences in the perceived effectiveness of using *Socrative* as seen from a student's t-test analysis where t = 0.013, p = 0.989 and df = 60.

Referring to table 1, students generally hold positive views on the perceived effectiveness of using *Socrative* to increase levels of their engagement when considering all questions and answers (mean = 3.77, standard deviation= 0.4833).

The findings of this survey on students' self-reported perceptions are in line with previous evidence in peer-reviewed papers from 2000 to 2007, which investigated the benefits and challenges associated with the use of a CRS (Kay & LeSage, 2009):

- *Socrative* seems to be user friendly and makes class more enjoyable or fun compared to traditional classes (Beekes, 2006; Elliott, 2003)
- *Socrative* seems to increase students' attention, helps them to think more and stay motivated during class (Caldwell, 2007; Elliott, 2003)
- *Socrative* seems to make students more likely to participate in class compared to hand-raising and tends to let them feel engaged during class (Caldwell, 2007; Draper and Brown, 2004)
- Providing instant feedback through the use of *Socrative* makes students more aware of their misunderstandings compared to traditional classes and they would like to use *Socrative* more during classes (Caldwell, 2007; Draper and Brown, 2004)
- However, students are not more motivated to come to class because of the use of *Socrative* (Beekes, 2006), which is actually contrary to the findings of Caldwell (2007).

Conclusions

While it is not a digital panacea, the usage of a new technology like a virtual CRS can support teaching and learning, for example determined through a self-reported increase in learners' engagement levels. Compared to clickers, *Socrative* is more flexible and a particularly cost-effective solution for larger classes to increase interaction and instant feedback between students and teachers. These benefits together with its ease of use may foster user adoption and may lead to a more wide-spread implementation of this (or other) virtual CRSs in tertiary or even secondary education. But technology itself is not pedagogy and therefore it is necessary to consider other contextual factors which will determine the impact on learning outcomes when using a CRS. More research is needed to analyse the effectiveness of specific types of questions to be posed in class. Further evidence needs to be collected on whether CRSs are indeed a similarly adequate tool for the social sciences as this preliminary study suggests, compared to more technical subjects as previous research has shown. Broadening and deepening the research scope will provide additional data on how to use CRSs and in what learning environments they are the most effective.

Table 1: Students' views on the perceived effectiveness of *Socrative*

	Responses					Mean	Std Dev
	SD	D	N	A	SA		
1. *Socrative* is easy to use (user friendly).	0 (0.0)	0 (0.0)	11 (17.7)	33 (53.2)	18 (29.0)	4.11	0.6800
2. *Socrative* increased my attention during class.	1 (1.6)	0 (0.0)	21 (33.9)	34 (54.8)	6 (9.7)	3.71	0.7103
3. *Socrative* helped me to stay motivated during class.	0 (0.0)	4 (6.5)	19 (30.6)	30 (48.4)	9 (14.5)	3.71	0.7973
4. *Socrative* helped me feel engaged during class.	0 (0.0)	2 (3.2)	28 (45.2)	25 40.3)	7 (11.3)	3.60	0.7346
5. *Socrative* made me more likely to participate in class compared to hand-raising.	0 (0.0)	3 (4.8)	10 (16.1)	30 (48.4)	19 (30.6)	4.05	0.8184
6. *Socrative* made the class more enjoyable and fun compared to traditional classes.	0 (0.0)	1 (1.6)	17 (27.4)	27 (43.5)	17 (27.4)	3.97	0.7886
7. *Socrative* helps me to think more during class compared to traditional classes.	0 (0.0)	2 (3.2)	17 (27.4)	32 (51.6)	11 (17.7)	3.84	0.7508
8. I would like to use *Socrative* more during my classes.	0 (0.0)	1 (1.6)	19 (30.6)	28 (45.2)	14 (22.6)	3.89	0.7705
9. *Socrative* motivates me to come to class.	4 (6.5)	9 (14.5)	36 (58.1)	9 (14.5)	4 (6.5)	3.00	0.9054
10. Instant feedback received through *Socrative* made me more aware of my misunderstandings.	1 (1.6)	0 (0.0)	16 (25.8)	36 (58.1)	9 (14.5)	3.84	0.7287
Overall for ten items						3.77	0.4833

Note: 1 = Strongly Disagree (SD), 2 = Disagree (D), 3 = Neutral (N), 4 = Agree (A) and 5 = Strongly Agree (SA)

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Collaborative Vocabulary Lesson Design on the University of Edinburgh's International Foundation Programme

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Article based on a presentation given at the 2014 InForm Conference by Kathryn Redpath and Anthea Coleman-Chan.

This article explores the successful collaboration between English for Academic Purposes (EAP) and content tutors on the Edinburgh International Foundation Programme (IFP) to design targeted EAP materials and assessment: teaching and testing academic vocabulary in the context of students' chosen content areas, developing English language skills and content knowledge together in a cohesive programme of study.

Academic Vocabulary and Academic Texts

Approximately 75% of the lexis in academic texts is thought to consist of general high-frequency vocabulary, with 10% consisting of general academic vocabulary and the remaining 15% consisting of discipline-specific, technical vocabulary (Coxhead, 2000). Moreover, it is thought that readers need to know 95% of all the vocabulary in any given text in order to process and understand it (Laufer, 1992 and Hirsh and Nation, 1992).

While students embarking on an IFP are likely to be familiar with many of the general high-frequency words from their prior English language learning experiences and may have a level of receptive knowledge of general academic vocabulary, their knowledge of the full range of general academic vocabulary is likely to require development. Moreover, not necessarily having previously studied the content of their chosen IFP courses, students may have little or no knowledge of the subject-specific technical vocabulary they encounter in academic texts, and may struggle when trying to process it.

The Key Vocabulary Course

In their first session on the Edinburgh IFP, students choose two content courses from: Psychology, Philosophy and Social Science. In order to support learning on these content courses, EAP and content tutors worked in collaboration to design the Foundation English for Academic Purposes (FEAP) Key Vocabulary course. Organised into three separate strands and run by the English Language Teaching Centre, classes are timetabled to precede the related IFP content sessions within any given week. The aim is that students are better able to understand the texts they encounter in their content options and thus better able to progress in their learning.

The Key Vocabulary course materials were designed based on Coxhead's Academic Word List (AWL), which consists of 570 'word families', with each word family containing a 'head-word' and a set of related words, such as *analyse* and: *analysed analyser analysers analyses analysing analysis analyst analysts analytic analytical analytically analyze analyzed analyzes analysing.* The AWL is subdivided into ten 'sublists', with sixty word families in sublists one to nine and thirty words in sublist ten. The words in sublist one occur most frequently in academic texts. Those in sublist two appear with the next highest frequency. Those in sublist ten are the least frequent. (Coxhead, 2000).

In our Key Vocabulary course, students begin in week one by studying the words in sublist one. In week two, they revise sublist one and also cover sublist two. In week three, sublists one, two and three are covered, and so on, extending students' knowledge of general academic lexis week by week, until all ten sublists are covered. Throughout the course, students are taught to recognize not just the head-words, but also those in the word family, allowing them to rapidly expand their receptive knowledge of general academic lexis.

To develop students' knowledge of subject-specific technical vocabulary, the materials are designed to introduce lexis that students will encounter later that week in their content sessions.

Materials Design and the Collaboration Process

The materials design process involved content tutors providing EAP colleagues with the texts the students would be studying in each of the content sessions. EAP tutors then used the Compleat Lexical Tutor (Cobb n.d.) website to analyse these texts, separating the lexis into general high-frequency, general academic,

and subject-specific technical lexis. The next step was to design a series of tasks which would allow the students to extend their knowledge of both the general academic lexis from each of the sublists on the AWL and the technical lexis to be encountered in each content session.

While tasks vary, they tend to focus on developing students' receptive rather than productive knowledge of lexis. This was a pragmatic decision based on student feedback that receptive knowledge was what students felt they most required when they encountered academic texts. One common feature is that students usually begin with a task in which they indicate their level of familiarity with the words to be presented in the session, allowing them to focus on those that are new or need revisiting.

Throughout the course, students are given advice on how best to learn and revise vocabulary so that they can maximise their ability to retain the words they learn on the Key Vocabulary course. They are advised to study actively, learning new words using dictionaries and recording these new additions to their knowledge. They are also guided as how to best move beyond mere recognition to be better able to retrieve new words learned, for example through repetition and association techniques. Students are also taught about noticing newly learned vocabulary when reading, and the active use of newly acquired lexis in their own academic writing.

Key Vocabulary Assessment

The assessment for the Key Vocabulary course takes the form of a two-part test designed by the English Language Teaching Centre, based upon two existing tests: the AWL Levels test (Schmitt, Schmitt & Clapham, 2001) and a C-test (based on Laufer & Nation, 1999). In the first section, testing general academic vocabulary, students must match words to meanings and complete a gap-fill task. In the second section, which tests subject-specific, technical vocabulary, students must complete gaps in reading texts focused on the content options they have studied.

Challenges and Developments

Since its inception in 2011, the Key Vocabulary course has been developed in order to provide the best possible learning experience for the students. For the upcoming session, for example, the range of classroom and homework tasks is being expanded, so that students can learn by engaging in a greater variety of engaging and useful vocabulary activities. The three strands are also being re-sequenced to ensure that students are not encountering the same types of tasks within the same week across different strands. These changes are being implemented as a result of student feedback and recommendations from our external examiner.

Of course, there continue to be challenges. Given that the course was developed in 2011, a number of the key EAP and content tutors who worked on the initial collaborative design process are no longer involved in the day-to-day teaching of the IFP. EAP tutors who were not involved in the design of the Key Vocabulary course are now teaching the Key Vocabulary course and content tutors new to the Edinburgh IFP are not necessarily as keenly aware of the ways in which the Key Vocabulary course intersects with their own content course as their predecessors. We have learned that it is essential to have a comprehensive briefing with all staff involved in both the vocabulary and content courses on the Edinburgh IFP, particularly when new staff become involved. It is also important that the Key Vocabulary and content tutors meet regularly throughout the session, to make sure that they continue to be in sync with one another and that there is no unwanted overlap in input between the Key Vocabulary and content. In other words, collaboration at the design stage has proven successful. However, for the continued success and smooth-running of the Edinburgh IFP, continuous and responsive collaboration between EAP and content tutors throughout the session is what is required.

Given that students are each year entering the Edinburgh IFP with higher English language scores, more changes may be required in the future. For instance, some students are entering the programme with quite a highly developed level of knowledge, not just of general academic vocabulary, but also of subject-specific, technical vocabulary in their areas of interest. Based on recent student feedback, it may be the case that for these higher-level students, the Key Vocabulary course is unnecessary. For others, however, it is still proving to be useful and supportive in the early days of the IFP and of their academic lives at the University of Edinburgh.

Thus, for now, it is hoped that the collaboration between EAP and content tutors on the IFP continues to provide a stimulating and useful way to learn the academic and technical vocabulary of the Humanities and Social Sciences. It seems that this approach not only helps students to achieve success on the IFP but also provides knowledge and understanding that continues to assist them as they progress in their academic careers.

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Integrating technology in a mandatory chemistry module – successes and failures

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The introduction of various online resources in a compulsory module for prospective science and engineering undergraduates is described. This now includes; a website, VLE quizzes (Moodle) and use of third party learning platforms (Memrise, Quizlet).

These are assigned as self-study resources, some being more popular than others and the question of uptake and effectiveness is addressed. Use of a bank of Moodle quizzes is found to benefit students who have lower English ability in particular. Wider issues of activity design are addressed.

Introduction

The increasing use of technology in education is an unwavering trend and most institutions (including this one) make use of virtual learning environments (VLEs). Our students are often more technologically aware than us, and it is an increasingly important aspect of teaching to harness technology and make effective use of it inside and outside the classroom.

Context

The module involved in this study is a twelve week chemistry course entitled 'Fundamentals of Science'. This is broadly at AS level and a compulsory component for foundation certificate students on the Science & Engineering program at Sheffield International College (part of Kaplan International Colleges UK). The VLE has been in place for several years and has gradually become a more important aspect of students' study and communication with the college. A collection of online quizzes using the open source platform Moodle (https://docs.moodle.org/29/en/Quiz_module) has been built up to follow the course on a weekly basis and are part of student assigned self-study. Student participation in the quizzes is monitored in two ways:

In seminar classes by teachers who can access user information, and persuade and encourage students to complete their work.

Centralised data collection: quiz completion data are downloaded at the end of each week and recorded in an excel file accessible to all teaching staff (including academic advisors).

In spite of this not all students do complete their work and this continues to be monitored throughout the term. In addition, student access to required files (lecture notes) for the course on the VLE is monitored.

Use of data

A large amount of student specific data can be built up over the course of the module (see Figure 1). Early adoption of good study habits in a course is obviously to be encouraged. Obtaining this data quickly (in the first week or two of a course) can be critical to improving module outcomes. Staff are therefore encouraged to follow up with students on this information and it becomes a useful way to promote good study habits. Often it is observed that if students do not engage at the beginning, no level of encouragement will get them to do so. It is also observed that an element of healthy competition has a very positive impact on students. The quizzes are set up such that a dynamic leader board (with full names) is displayed on the module front page; this encourages some students to keep trying to improve their ranking. Data is collated at the end of term to find overall winners and leading classes and this is well received. Central data handling aids teachers who may

Figure 1. Example of data extracted from Moodle for one class of students in spring 2015. The data handling uses lookup functions and this requires a unique field in the filedump from Moodle (the email address field is used).

			58	73	84	66	60	75				
Student ID	class	Quiz1	Quiz2	Quiz3	Quiz4	Quiz7	Quiz8	Quiz9	Quiz10	Quiz Totals	# Quizzes	Quiz Average
38397	S230		85	#N/A	100	87	80	89		441.0	5	88.2
27142	S230		73	83	95	67	90	#N/A		407.8	5	81.56
31534	S230		37	68	#N/A	74	60	74		313.3	5	62.66
38907	S230		71	#N/A	95	78	60	#N/A		304.3	4	76.075
39936	S230		77	83	73	55	#N/A	#N/A		287.5	4	71.875
39085	S230		#N/A	100	100	#N/A	#N/A	85		285.0	3	95
8013	S230		#N/A	76	89	91	#N/A	#N/A		256.0	3	85.333
40247	S230		39	76	#N/A	#N/A	50	#N/A		165.3	3	55.1
35211	S230		#N/A	#N/A	#N/A	#N/A	60	81		141.0	2	70.5
26306	S230		#N/A	#N/A	86	#N/A	40	#N/A		126.0	2	63
29302	S230		#N/A	#N/A	84	#N/A	#N/A	#N/A		84.0	1	84
33767	S230		30	38	#N/A	#N/A	#N/A	#N/A		68.0	2	34
35172	S230		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A		0.0	0	0
24879	S230		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A		0.0	0	0

have some reluctance to use the technology, and this has increased the resultant interest in the activities.

The data collected in this study has been further analysed with two main findings. The first is that use of both the VLE in general, and engagement with Moodle quizzes, is positively correlated to performance. The second finding is that participation in the quizzes is linked to improved performance specifically of students with lower English competence (Henton, 2015).

Moodle quizzes: activity design

There is a scope for varied question types within Moodle and chemistry as a subject is well placed to exploit this functionality. Each quiz requires on average twenty responses and is a mixture of multiple choice, numerical, short answer, matching and cloze passage. An example is shown in Figure 2. They are set up to allow a maximum of three attempts, with the highest score recorded. On completion students can review their attempt including sight of the correct answers; subsequent attempts scramble the order of questions. An able student could complete a quiz in about fifteen minutes and a weak student could be studying for perhaps a couple of hours with use of the feedback and supplemental reading. Every detail of students' attempts is recorded, but only the fact of completion and highest score are exported, notwithstanding the occasional comment in class on the odd times of day particular students do these tasks.

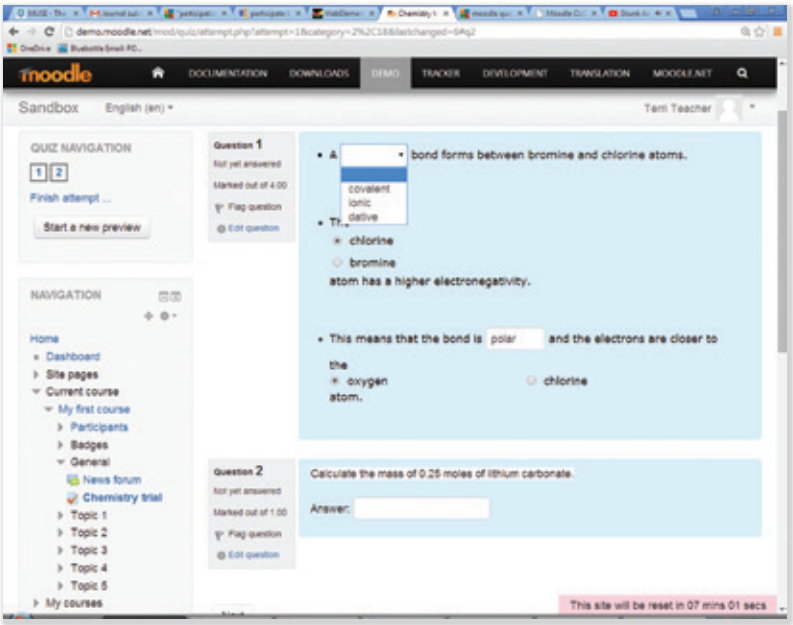

Figure 2. Example question design in Moodle. Shown is a cloze question featuring different input types and a numerical question.

Other online tools

Memrise (https://www.memrise.com/teachers/) is one of several new learning platforms using spaced-repetition techniques. It is largely based on memorisation and so is especially important in areas where vocabulary needs to be acquired and its most common use is in language learning. Reminders space out in time as your knowledge for a word or term gets deeper, so time is not wasted reviewing familiar material. The platform uses game technology to hook users, for example points build up to little rewards and flowers bloom as you learn words. It is in addition a social media site and users can follow other users, create 'mems' and share them. It is free of charge for teachers to register and assign courses to their classes, who can then be monitored in much the same way as within a VLE. Some quizzes have been implemented in Sheffield using this platform on a small scale; while the nature of suitable material is limiting, the design is excellent and this tool can be of particular benefit to students not studying in their mother tongue.

There are other platforms worthy of merit, most notably Quizlet (https://quizlet.com/teachers) which offers a wider variety of question types than Moodle but is more difficult to extract student data from.

Recommendations

Analysis of VLE use and activity need not be very time-consuming and has benefits in promoting engagement.

Activities such as those described above can be of real merit, and be a significant factor in improving results. It is of particular importance that the activities are at the appropriate level for the students, which in the case of foundation year students can cover a very wide range of abilities. It is also important that the students get feedback and are monitored. Evidence from a number of studies suggests that time spent developing these tasks is more than worthwhile (Bälter et al, 2013, Stricker et al, 2011, Gikandi et al, 2011), in particular for students with weak language skills (Henton, 2015). Technologies to support education are developing rapidly and while there is unlikely to be a 'one size fits all' solution, further improvements to VLE embedded technologies are needed and likely to come.

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'In the mix': student experience of Blended Learning applied in a business studies context

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This article sets out how a project experimenting with various mixes of Blended Learning (BL) has been received by an international foundation level student group. There are some notable findings that appear to reinforce how rapid and varied technological awareness and associated possibilities are developing for BL. This evolving work illustrates how the current environment presents interesting challenges and possibilities in co-produced learning.

Introduction to Blended Learning

Education in the 21st century has seen a steady trend towards technologically enhanced learning (TEL). This has led to the idea of BL, a term first used by Cooney et al (2000: p165), which may be understood here as the use of traditional face-to-face (F2F) learning combined with online methods using Information Communication Technologies (ICTs). While many tutors have been drawing

Figure 1: Market Research Project Stages and the Blend

Stage	ICT used	Other tools used (i.e student led)
Stage 1: Teaching marketing concepts Online: 'Flipped class room' - Questions on 'Blackboard' (BB) – students need to read texts and answer the questions on BB before the session; 'Socrative' - questions on the web-based learning software; each group writes their answers using this before the session. Face-to-face (F2F) sessions - Group and whole room discussion to check / compare emerging findings. Live Q&A session using 'Socrative'.	Blackboard Socrative	Smartphone Tablet Laptop
Stage 2: Primary and secondary data collection Students go to a retail shop as group to collect primary data and search secondary data mainly using internet. Evidence of collecting primary data, they are required to take a video clip of themselves Two sessions to update their research (F2F and Online): F2F session: each group report about their research Online session: Group Skype tutorial to update their research.	Video clip (no requirement was made to use any particular tools.) Skype tutorial	Facebook, e-mail, Whatsapp, iMessage Weechat, Google chrome, Firefox, Safari, Google scholar, Youtube, Google Drive, iMovie, Flipagram, Counters, Numbers, Meipei, Viber, Pages, Keynote.
Stage 3: Group presentation of major findings	Visual presentation	Powerpoint, Prezi
Stage 4: Write up of 1,500 word report Individual formative assignment	Turn-it-in used to process the report submission	Word, Excel

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on a range of tools and ideas with ICTs featuring heavily (Moore and Kearsley, 2011), in the context of BL the use of ICTs has been viewed as complementary to, rather than as a replacement for, traditional face-to-face teaching (López-Pérez et al, 2011).

Implementation and aims

This BL case has involved applying TEL to suit an established module as part of the International Foundation Programme (IFP) at the University of Reading. This was designed in cooperation with Intel and focussed on a Business and Management module. The underlying idea was to introduce a more flexible learning mode and to provide learners with choices regarding when, where and how their learning occurs (i.e. the pace, place, form and mode of delivery). The research was action based to explore student responses to BL and covered two entries of students totalling 76 student participants. The main focus for review and assessment in research terms was the 'Group market research project' required as part of the module. In brief this involves a Group project with 3-4 students working in collaboration to produce several outputs across four project stages, with a variety of tools and techniques applied or available (Figure 1).

Module: ICTs and other tools

As Figure 1 illustrates, a range of tools were used to aid teaching and learning and to facilitate various means of communication between all participants. The standard University online platform – BlackBoard – was useful for lodging teaching materials, to aid preparation and understanding. Socrative is a free software tool / app that can be downloaded to smartphone, tablet or laptop and tutors can set up their own 'room' which students can log into using their own devices. Interaction will be shown on the tutors' own device in real time. When the tutor's device is connected to a class room screen, everyone involved (logged-in) can see the material. Students can engage at any time while the room is 'open' and they can get instant feedback. After analysing the first set of data (a short questionnaire and a focus group) from the first cohort, a Facebook group and a Whatsapp group were set up for the second intake to enhance communications.

Main findings

The main findings are reassuring for proponents of BL and ICTs and their use in higher education. Students did not find any significant obstacles in using the new technologies during the project. Moreover the students proactively embraced ICTs – they generated their own learning communities and drew in various Apps that they were familiar with without any support from the tutor. They took up the invitation that the BL approach offered to apply different technologies.

In terms of hardware all students have actively made more use of their own devices (e.g. smartphones, cameras, tablets). Most students already use different types of social media and they created new groups using whichever were familiar to them. Significantly they have drawn in a wide variety of new Apps and other softwares used by other group members. Apps, software and tools chosen on the students own initiative included: Whatsapp (seen as cost effective, useful), Facebook, Prezi, search engines, Notes, Youtube, Instagram, Google Drive, email, Flipagram, Counters, Numbers, Meipei, Viber, Pages, iMovie, Keynote, iMessage (plus Office: Word, Excel, Powerpoint).

Students shared their knowledge of ICTs with other group members and some were introduced to new Apps and software both by the tutor and by peers. It appeared from the research that they enjoyed the process and improved various skills – including ICTs use and application, communication skills, research skills, organizational skills and team working.

Among new softwares adopted by the tutor was Socrative, and its use received mixed feedback; some students thought it useful, fun and novel but others (perhaps due to limited use) thought it less functionally viable. The Skype tutorial session was mostly received positively as it gave students flexibility and was a novelty for some students. It also provided a target deadline to make progress on their work. Students were asked to make a video clip of themselves collecting data as evidence of group work and to aid visual ICTs skills enhancement. Some groups noted that it was an opportunity for "bonding" of their group and introduced a "fun" element in seeing other students' video clips – these were very well received.

The students' major communication tools from the first cohort were found to be Facebook and Whatsapp. These two Apps were also used to enhance the tutor-students' communication in the second cohort. However the use of these were not as high and effective as expected. The communication was far from active from the students' side and it was rather one way from the tutor to students. Only a handful of questions were raised. Students comments on Facebook/ Whatsapp that the tutors attempted to instigate included comments such as: 'weird', '[the tool is] not professional', 'I don't use Facebook', 'only elders in my country use Facebook', 'it is not a suitable way of communication at the university', 'my father can see my Facebook pages...'

This reflects a culture of using such tools for private use and may be a barrier to applying these tools to formal education. It is worth noting that Blackboard announcements and e-mail communication were also used and the students preferred these methods of communication. Overall students do want certain limits and privacy concerning their learning.

Conclusion

Gradual implementation of various ICTs in the module was important to make the experiment successful. However the 'mix' needs careful consideration to achieve strong module learning outcomes. So each tutor will need to find their own mix based on the design and coverage of the module and the types of students. While there is more emphasis on independent learning, students still value contact, support and traditional modes of teaching. The design process may be time consuming for staff and there may be a need to invest time to learn new technologies and understand what's possible and 'what works'. Such a change requires continuous professional development for tutors. Inevitably there will be some trial and error involved.

As the students already have a range of skills, tools and awareness of some ICTs – and a willingness to embrace the various ICTs in their own learning – it is essential to bring students knowledge into the mix more formally. As can be seen BLIP has led to a modified approach to learning and 'structured extemporisation' as a form of co-production needs management. It is important to ensure oversight of such student innovation so that the quality of learning is maintained.

Acknowledgement

I would like to thank Intel for their support on this project.

First steps to integrating corpus analysis into everyday classroom practice

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Language teaching is an exciting area for applying corpus linguistics. This article gives a glimpse into practical applications of Concordancers in academic writing and provides examples of Concordance exercises that can be used in the classroom to introduce students to working with corpora.

The aim of the article is to highlight the importance of data-driven learning for developing student autonomy by empowering and motivating students to do linguistic mini-researches that lead, in turn, to the discovery of important linguistic phenomena. The article presents several ways in which Concordancers and corpora1 can be used in everyday classroom practice within the context of developing student autonomy.

The classroom use of Concordancers is largely based on the principle of Data Driven Learning (Johns, 1994) and discovery or serendipity learning (Bernardini, 2000), one of the main tenets of which is the idea that students are more likely to retain and recall information which they discover for themselves as a result of collocational analysis supported by grammatical and frequency analyses.

The uses of Concordancers may range from very simple tasks like checking the correct use of prepositions or place of connectors, to more sophisticated tasks, for example, exploring word collocations, making decisions about correct word usage, analysing and using information about word frequencies.

In this article I will describe some easy ways in which Concordancers can be introduced into the EAP classroom. These ways include checking prepositions and common phrases, getting help with some grammatical issues, for example singular and plural forms and finding examples of authentic collocations.

Corpora and Concordancers[1]

Among a striking variety of Concordancers and corpora available now for teachers and learners, I find The Compleat Lexical Tutor **http://lextutor.ca/conc/eng/**, Sketch Engine open access **https://the.sketchengine.co.uk/open/** and COCA (Corpus of Contemporary American English, academic) **http://corpus.byu.edu/coca/** particularly useful for the purposes of my students because they are user-friendly, open access, easy to teach and to learn, and free.

I find the Compleat Lexical Tutor Concordancer particularly beneficial when working with students on International Foundation Programmes because it contains subject-specific Corpora: Medical, Commerce, Humanities, and Law and Social Sciences. Law students may find another corpus useful –BLaRC, the British Law Report Corpus, an 8.85 million-word legal English corpus. The RAC (research article corpus) is a smaller corpus (132,000 words) which could be useful for students writing in Education.There is also a specific Electrical Engineering corpus comprising textbooks and course books in electrical engineering. When using this corpus, students need to be reminded that

[1] Corpora – large sets of texts, e.g. British National Corpus which was created in the 1980/90s and comprises over 100 million words

Concordancer – a computer programme which allows users to browse corpora showing the key-word usage in multiple contexts

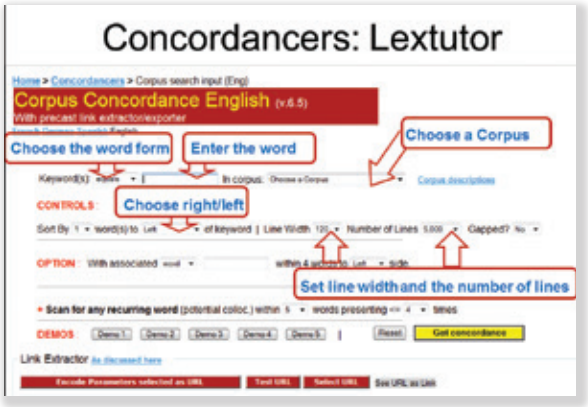

Figure 1: Key-word in context search (KWIC) in online resource The Compleat Lexical Tutor.

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dissertation and journal articles tend to differ in style from textbooks.

While the BNC Written can be searched for non-subject-specific queries such as prepositions and connecting words, the Academic Abstracts corpus, approximately 174,000 words, is a collection of thesis and dissertation abstracts by native English speakers in four subject areas: Arts and Humanities, Social Sciences, Science and Architecture. This corpus is suitable for IFP students in the Humanities.

The essential first step is to introduce students to KWIC (key-word in context) search, as shown in Figure 1.

Sorting out simple language problems

Prepositions

Mistakes in the use of prepositions are a recurrent problem for students of English. Giving students a quick and effective reference tool usually helps in demonstrating the benefits of using this programme to help with writing. Students can be given an initial task:

Task: what prepositions are used after *difference – ? and different – ?*

This search (Figure 2) usually leads students to the following conclusion:

Difference *noun*

- ***between*** *(e.g. differences* ***between*** *two communities)*
- *in (e.g. differences in attitude)*

Different *adjective*

- *From (e.g. ... language different from original query)*

It is useful to ask students to run checks on most commonly confused prepositions. Here is another example of a task:

Task: what preposition is used after

insight -?
draw -?
discuss -?

Try several corpora; use equals search and sort to the *right*

Record your findings

word	Preposition/s	Examples
insight (n)		
draw (v)		
discuss(v)		

Set phrases

Checking the correctness of commonly confused phrases is also a productive method of introducing students to working with Concordancers. Below is a task which I give students at the initial stages.

Task: choose the correct form of each phrase using Concordancer. Try *families* searches and *equals* options to search separate phrases in several corpora, e.g. Humanities and Medical:

a) The structure of the first chapter is as following / following / as follows / as follow

b) As regard/ regards / as regarding / with regards /as regards/ with regard to housing, employers' policies vary

c) As far as the new rent is concerned/ As far as concerning new rent / Concerned new rent/ concerning new rent options fall into four categories

Make a note of your results:

Correct form	Example

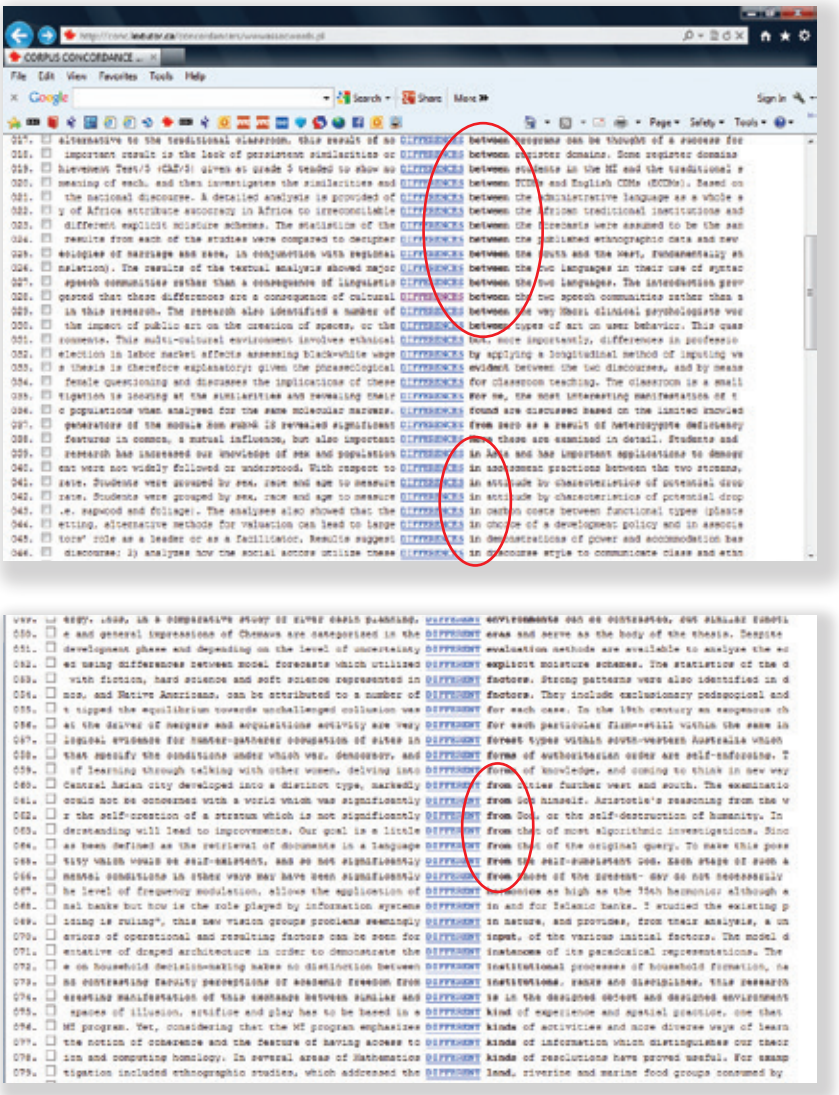

Figure 2: Search results for "differences" in online resource The Complete Lexical Tutor.

Clarifying some grammatical issues

Plurals

Some common grammatical mistakes in student writing can be addressed by Concordancers searches. One of the common questions students ask is whether data is singular or plural. While helping students find an answer to this question using Concordancers, it can be useful to draw their attention to the differences in subject-specific use of language. For example, a quick search of Lextutor Concordancer shows approximately similar numbers in the Academic General Corpus and in BNC Humanities. However, the BNC Medical Corpus shows definite preference for plural usage. This can be a good way of introducing linguistic differences in academic writing in different subject areas- both in generic IFP courses of academic writing and in subject-specific ones. Differences in the usage of data were highlighted by Tim Johns in his Kibbitzers: "The choice of plural or singular ... also correlates with the meaning of the word. The (traditional) meaning "evidence used in experimental procedures" is most often plural, while the (more recent) meaning "digital information stored or manipulated by a computer" is most often singular." (**http://lexically.net/TimJohns/Kibbitzer**). As a result, singular usage can be expected to be more common in computing texts.

Another common mistake is using the noun literature in plural. A search of singular and plural forms on Lextutor gives the following results. In the Academic General Corpus – there are 1239 hits (206 instances per million) for literature and 13 hits for *literatures* (2 per million). The BNC and COCA give similar results: the BNC has 49 instances of the plural as opposed to 5246 for the singular; COCA has 305 against 28,055 for the singular. I then draw students' attention to the usage of the plural form of *literature*, where it mostly means different kinds of literature, or literature of different peoples, but not sources in literature reviews.

Collocations

Collocations are one of the most persistent difficulties of L2 students because of the formulaic nature of the English language (see, for example, Wray 2002). Students can be given tasks to run specific searches for collocations sorting the results to the right or to the left of the key word.

For example, the search for prepositions used with difference, as described earlier, can also be used to learn about collocations. By sorting the results of the search to the left, students can find out what adjectives commonly collocate with difference:

Adj + *difference basic*, *big, clear, considerable, crucial, cumulative, essential, factual, fundamental, further, genuine, great, important*

A variety of material provided by such searches could result in follow-up tasks, in this case centred round using adjective ***+ difference*** collocations in the students' own writing.

In the same vein, the search on the word literature can also reveal its collocations:

Adj *+ literature:* *Existing, extensive, previous, recent, relevant, contemporary, early, earlier, analytic, expert, limited and even unexpurgated*

Literature + verb: reveals, deals, emerges, shows, tells, recycles old material, has been accumulated, has been aimed, has been developed

Word combinations: *Body of literature, subset of literature, recent strand of literature, broad range of literature, contribution to the literature, theories available in the literature, common perception in the literature, has often been neglected in the literature, adapted from the literature, existing theoretical literature*

To sum up – this article has attempted to give IFP teachers some initial suggestions for using Concordancers in the classroom. The possibilities offered by these programmes are much deeper and richer: they can offer substantial insights into grammar, vocabulary and academic writing style.

Assistive technology for integrated learning

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Assistive technology supports people with disabilities to work, learn and communicate. In higher education, students with disabilities are frequently provided with assistive apps to support them in their studies. This can include mind mapping software, text to speech software, and time management apps.

This paper proposes that there is a strong case for the use of apps to be promoted to the wider student population. It suggests that free educational apps could be useful in supporting ESL students with both study skills and English language skills. Finally, it provides examples of how apps can be used to integrate learning.

What is assistive technology?

Assistive technology (AT) can be described as a device, piece of equipment or system that provides support for a person with a disability to work, learn, communicate and manage their affairs. For people without disabilities, technology makes things easier; whereas for people with disabilities, often technology makes things possible. Examples of assistive technology include hearing loops and computer software.

In higher education, assistive technology can be used to provide reasonable adjustments for students with specific learning disabilities. An example of this is a Dictaphone to record lectures. The technology levels the playing field, improves student autonomy, provides multi-sensory learning opportunities, and improves accessibility of learning materials. The technology is specifically designed to meet the learning needs of students with SpLDs.

Funded assistive technology

Home students with SpLDs may be eligible for funding for assistive technology to help them on their course. This could include mind mapping technology, software to read text out loud, and speech to text software. The advantages of this are that the software package is specifically designed to support students with SpLDs and the software provided can be tailored to individual requirements of the students. An example of this is text to speech software, which enables students to have text read to them, thus supporting students who find reading

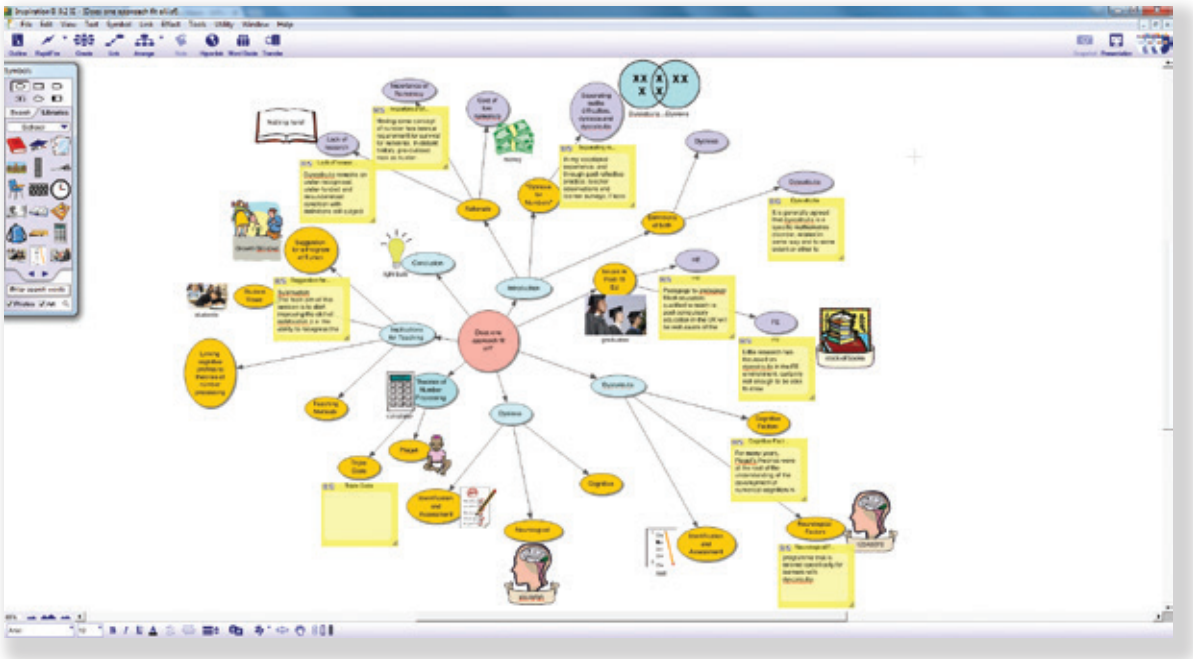

Figure 1: Mindmap created by a student.

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difficult, or time consuming (Asselin, 2010). The programmes are, however, expensive and are frequently only available on individual licence. The impact of this is the gate-keeping of resources, leading to a lack of inclusivity. This especially impacts on overseas students, as they are rarely eligible for funding for software, particularly disadvantaging students who have a specific learning disability. Further, the programmes are often not uploadable to cloud technology, limiting their usefulness to students.

The issue of funding is likely to become more pertinent if the proposed DSA changes take place. These changes could include a reduction in funding, resulting in less support for students such as note taking services and study skills support. This would have an impact on the additional support available to students. Consequently, the use of educational apps is likely to become more prominent. Note taking apps, for example, could be used in the case of note taking services being unavailable

Figure 1 demonstrates how a student has used mind mapping structure to create a framework of understanding about dyscalculia (Machin, 2015).

Broadening the use of assistive technology:

Whilst higher education assistive technology is frequently restricted to students with specific learning disabilities, the use of similar learning technology could be promoted to the wider student population. By widening its use, lessons can be more inclusive and meet the needs of a diverse range of students. For example, the technology could be used by students on English as a second language programmes to develop study skills such as organisation, time management, revision and memory, and planning and drafting writing. Bouck et al (2010), for example, found that the use of a pen top computer improved not only the quality and quantity of students' writing, but also their ability to plan and draft writing.

As has been discussed, assistive technology can be very expensive, thus limiting its availability. To overcome this, free education apps can be used, many of which offer comparative programmes. Educational apps are currently used by many higher education students to support their study. If tutors are familiar with such programmes, they can support students in effectively using these apps and combining apps to develop a structured learning tool. There are many free apps that can be used individually, or combined to support learning. These apps can then be uploaded to cloud technology to create a virtual learning environment. They are particularly useful because they can be can be used across different academic disciplines. The world's largest providers of these apps are Google and Apple (Godwin-Jones, 2011); consequently the majority of apps are compatible with either Apple's operating system, or android, which is Google's system (Droid, 2012). The main advantages of these apps are they are free and widely available; because they use cloud technology, they are accessible across different devices and can be used as an organisational tool, because everything is in one place. The main issues with the apps are that they are of variable quality; they are not specifically designed to support students with SpLDs, or second language students; and the apps may not be compatible with all clouds.

Examples of useful educational apps include mind mapping software; text to speech software, which reads text aloud; flash card creator software; transcription apps, which transcribe speech to text; and notetaking apps, which enable the students to create notes that they can convert into different formats, such as flash cards and pdfs. A good starting point for tutors interested in assistive apps is the ADSHE information page, which provides information and advice about a number of programmes: **http://adshe.org.uk/resources/assistive-technology/**

MyStudyBar (Figure 2, below) (Eduapps, 2015) is a tool that assembles free applications into one package, allowing the student to easily access a number of different apps.

Figure 2: MyStudyBar tool.

Assistive technology and English language learning

In addition to general study skills technology, there are also a number of programmes that can support language acquisition, such as vocabulary and grammar learning, and support students in developing skills such as reading skills and listening skills. Examples of these include phonic apps, to help students improve their pronunciation; English conversational practice, to increase fluency and develop conversational skills; and interactive grammar apps to develop an understanding of grammar.

The screenshot in Figure 3 is taken from LearnEnglishGrammar, an app developed by the British Council (2015). It is designed to support students of all levels to improve their grammar accuracy.

Conclusions

Whilst assistive apps are designed to support people with a disability, the increasing quality and availability of free apps has made educational apps available to the wider student population. These apps can support students in developing study skills and managing their learning, and can provide resources for developing language skills and academic writing skills.

Assistive apps, therefore, have a wider application beyond supporting students with a learning difficulty. Promoting their use can be an element of creating a more inclusive classroom and can provide students with an additional resource to support their learning beyond the classroom setting. This is likely to become more relevant if the proposed changes to DSA result in a reduction in additional learning support available to students. Tutors who are interested in increasing their understanding of the use of educational technology may want to research universal design for learning. Further information about this is available on the universal design for learning website: **http://www.udlcenter.org/aboutudl.**

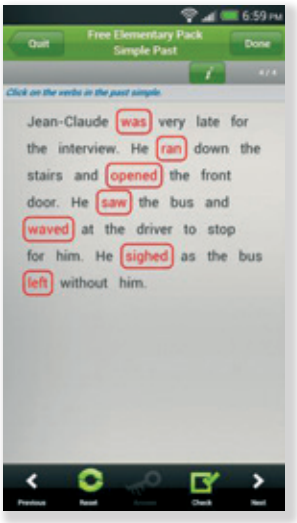

Figure 3: Screenshot from the LearnEnglishGrammar app.

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