Inform

A journal for international foundation programme professionals

To standardise or diversify

'A new restaurant for Winchester'

Referencing a quotation

Why IFP admissions don't always add up

And more ...





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We are proud to announce the first *InForm*Conference which will provide an additional dynamic to the existing forum provided by the *InForm* journal.

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Saturday 17 July 2010

Palmer Building, Whiteknights Campus University of Reading

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Registration forms should be received along with the conference fee no later than 31 May 2010.

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The plenary session will be delivered by representatives of UK NARIC, the National Agency responsible for providing information and advice about vocational, academic and professional skills and qualifications from all over the world.

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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 particular sector. Sessions need to appeal to tutors and course managers from across the curriculum.

We are particularly interested in receiving proposals which involve collaboration between tutors across subject areas, as this aligns with the inherent diversity embedded within most international foundation programmes.

In order to submit a proposal, please submit an abstract of no more than 60 words and a presentation outline of no more than 250 words.

A speaker proposal form is enclosed in this edition and available for download from

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Please email all speaker proposals to **inform@reading.ac.uk** by 30 April 2010.

Inside InForm ...

- **03 Get Prep@red:** Using web-based technology for international student recruitment and induction activities
- **O5 To standardise or diversify:**How should English language be assessed on foundation programmes?
- **07 'A new restaurant for Winchester':** Engaging students in experiential learning
- **09 Referencing a quotation:** How difficult can it be?

- 11 The mathematical attainment of international students studying foundation science and engineering programmes: Challenges and strategies
- 14 Why IFP admissions don't always add up: The need for an international mathematics testing system
- 17 Book review: Study Skills for Science, Engineering and Technology students, Maier, Barney and Price

InForm

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From the Editorial Board ...

Welcome to the fifth issue of InForm, the journal which provides a forum for members of the academic community associated with international foundation programmes. InForm is very much a collaborative effort and the editorial team would like to thank all its contributors and readers for their continued enthusiasm and engagement; once again InForm has gathered together a wide range of quality contributions from IFP practitioners, developing exciting new avenues for discussion and debate.



This issue begins with an article describing how web-based tools can be used for international student recruitment and orientation. This is followed by a discussion that considers the widely differing approaches to English language assessment on IFPs, opening a debate on the merits of standardisation versus diversification in this area. The next topic provides an alternative approach to an idea proposed in a previous issue of InForm, presenting an experiential approach to teaching business. We return to the recurring theme of writing skills development in our next article, which explores the challenges faced by international students in referencing quotations.

This issue also presents two articles with a mathematical theme, both pieces discuss the complexities of measuring mathematical proficiency in students from differing educational backgrounds for the purposes of university admission. The first of these presents a strategy for identifying and bridging the gap in students' mathematical knowledge; our final article, on a closely-related theme, suggests the need for a universally recognised test of proficiency in maths to better inform admission to IFPs.

Plans for the first InForm Conference are now well underway. This one-day conference will take place on 17 July 2010 at the University of Reading. A natural extension of our journal, the InForm conference provides a further opportunity for collaboration and a sharing of ideas, not to mention a means of meeting others from the IFP sector.

As always, we welcome contributions and suggestions for future editions. If you would like to write an article, comment on issues raised in the journal, or suggest a new feature or theme you would like us to cover, then please get in touch: inform@reading.ac.uk

Amanda Fava-Verde and Anthony Manning

Joint Chairpersons of the InForm Editorial Board

'Dear InForm'

Dear InForm,

Alexander Baratta makes an interesting reference to Freshman Composition in relation to international foundation programmes in his article 'Laying the foundations for discipline-specific writing skills' in issue 4. He cites Ivanic declaring that the Freshman Comp model 'is becoming the basis for the theory and research of academic writing in the United Kingdom'. Whilst this may have been true in 1998, I would argue that the situation has changed and that Writing in the Disciplines (WID) is a more influential US model now than Freshman Composition. (See Ganobcsik-Williams, L. (ed) (2006) Teaching Academic Writing in UK Higher Education: Theories, Practices & Models. Basingstoke: Palgrave Macmillan.).

The 'general education' freshman year does not exist in UK higher education. Even at A level, British students are more specialised than in the freshman year. The WID model relates to what happens in the majors and is therefore of greater relevance to the UK HE system, where students are 'majoring' from the start. International foundation programmes have an interesting place in this comparison, because it could be argued that they do have a similarity to the Freshman Year in that they also provide a relatively generic preparation and acculturation to degree level study. It would probably be more helpful, however, to compare them to the 'Writing Across the Curriculum' (WAC) model with its 'write to learn / learn to write' methodology, rather than to freshman comp, with its links to English Departments and Rhetoric.

The implications of this for Baratta's generic-specific essay writing approach are also interesting. Whilst the study of sample essays from different disciplines sounds like an excellent exercise, the conventions of disciplinary writing only make proper sense when they are used to express the knowledge and thinking of a discipline. They can be observed from a linguist's perspective from the outside but until students start writing in a discipline, their most useful learning is likely to be of generic, transferable skills. That said, it is a great idea for students to develop awareness of disciplinary differences during the foundation year.

Alan Evison

Head of Language and Learning Unit, Queen Mary, University of London Dear InForm,

I read with great interest Dr. Baratta's piece on discipline-specific writing and found it only helped to confirm what has become a tendency across the EAP board (e.g. last year's BALEAP conference on specificity). The approach Baratta suggests is very much in line with what the directors of foundation, in-sessional and pre-sessional programmes are trying to bring to the Kent courses and the bank of materials available in this domain is indeed growing (e.g. Garnet ESAP coursebooks). However, there are two further points that could be elaborated on here.

- a. Undergraduate departments don't always seem to be aware of their own writing conventions and, therefore, is it necessary to focus on these?
- b. Maybe departments expect students to arrive with basic academic writing skills and language and will give their own courses on specific writing once they start their degree, such as the bespoke courses delivered by our in-sessional programme director in the business and law schools at Kent.

As we have new modules in the sciences beginning next year on the IFP, I would be interested to learn from other colleagues whether their experience shows that certain subjects and their departments require a deeper level of specificity.

Sebastien Cadinot

EAP lecturer, English Language Unit, University of Kent

Response from Alex Baratta:

I am very grateful for the points raised in the two letters sent in response to my article 'Laying the foundations for discipline-specific writing skills'. I take on board the comment made by Alan Evison, especially about academic writing provision in foundation year programmes being more aligned to writing in the disciplines, as opposed to freshman composition. Having said that, within the pre-sessional course on which I teach, very similar in structure in terms of academic writing pedagogy to foundation year, the syllabus is indeed based on US writing courses, to include a US writing textbook and therefore, US terminology such as 'thesis statement' and 'unity'.

While definitely true that students cannot fully understand the conventions of their discipline's writing before they start to write for it, I believe that the linguistic knowledge that can be gained from essay analysis within a foundation course can nonetheless assist, such as understanding if, for example, first person is proscribed or perhaps encouraged, as this particular feature is arguably still a source of concern for university students.

The letter from Sebastien Cardinot also raises an excellent point, in that 'undergraduate departments don't always seem to be aware of their own writing conventions'. In fact, it could be argued that knowledge of discipline-specific writing conventions is often innately understood. However, with the focus on the 'generic-specific' writing conventions that my paper argues for, might this not lead to a need for more explicit awareness within the department, which can then be imparted to the students? Having said that, with the point raised by Alan Evison regarding discipline-specific writing provision already in existence, this might appear to be an obvious solution.

Get Prep@red: Using web-based technology for international student recruitment and induction activities

About the author



Dr Elisabeth WildingCourse Tutor, International Foundation
Programme, University of Reading

'E-recruitment' or 'e-induction' activities could be viewed as natural extensions to e-learning for institutions attracting international students to the UK. This paper will look at how the International Foundation Programme at the University of Reading has used web-based technologies to create distance materials for prospective students and offer-holders. It will then consider the advantages and challenges of using ICT for such a purpose.

Introduction

The educational sector has focused heavily on e-learning in recent years, including its use to reach students before they commence their formal studies. This pre-arrival focus of web-based technologies is therefore of special interest to international foundation programmes, drawing as they do on students from around the world, many of whom cannot visit the particular institution, let alone the UK, before starting their course. This paper will highlight the use of such technology in the Virtual Visit and Get Prep@red pre-induction materials at the University of Reading and examine some of the key issues raised during the creation and delivery of these facilities.

Improving student retention

The role that pre-arrival materials can play in student recruitment is perhaps clear, but there are also important implications for student retention. A recent HEA-funded project has highlighted the role that properly-managed e-learning can play in student retention, especially when such e-learning helps foster student engagement and relationship-building (Anagnostopoulou and Parmar, 2008 p.17).

Virtual Visit and Get Prep@red

The IFP website features two areas dedicated to applicants and students holding offers. The first level is the Virtual Visit, a site designed as an alternative to in-person visits to our campus. This area aims to provide a clear picture of life at Reading and on the IFP through

the extensive use of images, audio, and videos. Students are encouraged to interact with the material through quizzes and reflective activities. The Get Prep@red site goes one step further and provides more focused information, quizzes and activities for students holding offers for the programme. It is designed to answer the more specific questions that may occur to students in the time leading up to their arrival in the UK for their studies. This site also links to other external resources and to a dedicated social networking site, which is by invitation only.

The starting point for both projects was the question of how the available technology could best be used to support and deliver pre-induction activities for students.

Several key areas were identified in which web-based technology and materials could support these activities and the discussion below will consider each in turn, highlighting both the advantages and disadvantages uncovered during the course of both projects.

Streamline the dissemination of information to prospective and pre-arrival students

It was felt that information sharing could be improved by providing current, frequently-updated materials in an easily identifiable site that was easy to access and user-friendly. The extensive use of video and photos could create interest in these materials and provide another means of access for different learner types. Email bulletins were sent out to applicants with details of the website and they were encouraged to visit the site for frequently-asked questions. The greatest challenge of such a

'... e-learning helps foster student engagement and relationshipbuilding ...' website is being sure to include material of relevance and interest to the students. Feedback from both admissions staff and students has therefore been essential in making decisions about what to include in both areas and this needs continued monitoring. Secondly, there is a very real danger of information overload, as more and more material is added to the site, thus making it potentially unwieldy to navigate unless updates include deletions as well as additions.

Facilitate the ability of the programme to communicate more effectively with prospective students

Both sites have allowed students the option of communicating with staff or tutors through traditional email, but also through synchronous chat sessions and asynchronous discussion boards. The live chat sessions were offered first on MSN Messenger and then through the social networking site Facebook. 'Chat with a tutor' was offered at fixed times advertised in advance, so students could know when to log on and join the discussions. The informal nature of the chat seemed to encourage students to drop in for a quick question without feeling intimidated. This facility has proved more popular than discussion boards, but obviously more time-consuming for the tutors involved in the chat. Many of the same questions were asked repeatedly, so although it revealed common concerns (primarily accommodation for our students), it was also repetitive in its nature.

Encourage social interaction between students and foster a sense of community

A priority in the Get Prep@red platform has been building a pre-arrival student community and this has been achieved primarily through the use of a social networking site. As many students were already familiar with Facebook, making it both easily recognisable and accessible, offer holders were invited to join the closed Facebook site. Students were able to communicate freely and informally with one other. Before arriving they could find students from the same country, or intending to study the same subject, and/or sharing similar interests and make new friends. The result was that these students began to feel like members of the IFP community early on.

One area for consideration has been the level of moderation of the interaction taking place in the 'community'. The first year, a great deal of input came from a tutor who maintained the discussion, sought out new members and elicited participation, with the result that student participation was high, though primarily teacher-centred. Later, a more 'hands-off' approach resulted in a more relaxed, student-centred discussion, though overall less student participation. Another issue has been that the very popularity of Facebook has led to the IFP site being sometimes unfocused and distracting due to the intrusion of extraneous wall posts unrelated to the programme. A proposed solution is to move this area to another networking site, such as Ning, which has the same features but less 'clutter.'

Encourage engagement with and preparation for UK academic culture and academic skills

A significant amount of research has been done into how international students adapt to the requirements of academic culture in UK institutions of Higher learning and how this process can be best assisted. As Watson (2009) has highlighted, this acculturation process can best begin before the students even arrive in their new country. In order to facilitate this process, Get Prep@red created both programme-specific materials and tapped into ready-made resources already available on the web. For example, a link was given to the 'Prepare for success' pre-arrival preparation tool, because of its comprehensive array of activities focusing on general UK academic culture. At the same time, it has also been a priority of Get Prep@red to offer IFP module-based activities as a preparation for the teaching and learning that the students will encounter at Reading. Individual module tutors have provided introductions, pre-arrival questions and suggested reading to prepare students for the beginning of classes. Videos of the tutors will soon be added to provide interest and motivation. Student questionnaires have revealed that students would like more of this type of activity in the future, so this is an area for expansion, and for further research into what direction this expansion should take.

Conclusion

These pre-induction materials are still new and undergoing modification. The next step in refining them will clearly have to be eliciting further student feedback through tracking, questionnaires and interviews to obtain real data on their effectiveness. For example, there are plans to combine both platforms into one in order to avoid unnecessary repetition of material, but this will ultimately depend on the results of the research mentioned above.

Anagnostopoulou, K. and Parmar, D. (2008), *Practical Guide: bringing together e-learning and student retention,* Middlesex University

E-learning @ University of Birmingham (n.d.) 'Using technology to support student induction, University of Birmingham'. Available online: www.weblearn.bham. ac.uk/designer_guidelines/Support%20Student%20Induction.pdf

Rutter, M. (2006), 'Tutorial Chat: a case study of synchronous communication in a learning environment', *ALT-J*, 14:2. 169–181

Watson, J. (2009) 'Prepare for success: a pre-arrival learning resource for students preparing to study in a different academic culture'. *International Conference EUNIS 2009: IT: Key of the European Space for Knowledge*, Santiago de Compostela, Spain, 23–26 Jun 2009, Available online: www.eunis.es//myreviews/FILES/CR2/p17.pdf

'Individual module tutors have provided introductions, pre-arrival questions and suggested reading to prepare students for the beginning of classes.'

To standardise or diversify: How should English language be assessed on foundation programmes?

About the author



Dr Gerard Paul Sharpling Senior Language Tutor in EAP, University of Warwick

'There are three broad ways of assessing English language ability within IFPs, which are mostly used in combination ...' This article considers the apparent incompatibility between different forms of English assessment on foundation programmes. It firstly considers three broad approaches to assessing English on foundation level programmes within UK universities. It then considers how the combination of these types of assessment creates a conflicting, uneasy picture of a candidate's language ability. Finally, the article suggests a resolution to this impasse by indicating two possible scenarios: an increased level of standardisation in assessment, or greater diversity in the assessment framework.

This article begins by considering three broad approaches to assessing English on international foundation programmes (IFP) within UK universities. It then looks at how the combination of these types of assessment creates a conflicting, uneasy picture of a candidate's language ability. Finally, two possible resolutions to this apparent impasse are suggested: increasing the level of standardisation within the assessment framework, or further diversifying the framework. These outcomes are then related to the issue of washback on teaching and learning.

English language assessment: three key elements

There are three broad ways of assessing English language ability within IFPs, which are mostly used in combination.

Coursework tasks This type of assessment typically involves task-based activities such as written research assignments, oral presentations and survey activities conducted within groups, as well as learner diaries and reflective writing. Such activities are typically extended in time, and may involve group, as well as individual assessment. Coursework tasks have high validity, given their direct relevance to candidates' future academic programmes. They include opportunities for subject-specific input and study skills development which reflects the candidates' needs and future specialisms. However, they may lack reliability; they are often difficult to mark, and written tasks, in particular, may be prone to plagiarism.

In-house examinations These may involve timed assessments of reading, writing, listening and (less frequently) speaking skills. Opportunities exist within such examinations to use subject-specific input materials (for example, a reading text on business studies, and listening texts drawn from a lecture in a scientific area). Examinations allow for a level of cross-fertilisation with other areas of the course. Also, given appropriate security, examinations provide a 'window' on what candidates can do without additional language support. However, examinations can only provide a 'snapshot' of a candidate's skills and abilities, and do not fully address the needs of wider academic literacy (Hamp-Lyons and Kroll, 1996 p. 53). Tutors may have few opportunities to pilot test items in advance, or to engage in subsequent statistical analysis of the responses; the difficulty of test items are thus often unscaled, and standards may vary from item to item, and across different test papers set from one year to another.

An additional external proficiency test

Few IFPs adopt proficiency testing as the sole measure of proficiency, since study skills are not readily measurable in this type of test. Yet increasingly, receiving institutions require a neat 'conversion' of IFP assessment marks into comparable proficiency test scores. Proficiency tests have the advantage of being marked by independent assessors. Nevertheless, they are often regarded as poor indicators of 'language gain'. Increases in proficiency test scores over an academic year may be surprisingly small, and some candidates' scores may even remain the same, or worse still, may decrease.

'Proficiency testing, which supposedly submits candidates to rigorous external scrutiny, is seen as the most legitimate assessment type ...'

Are proficiency and IFP testing compatible?

Receiving institutions look for certain compatibilities between the above three types of assessment. This is linked to the need for concurrent validity: that is 'how far results on a test agree with those provided by some independent and highly dependable assessment of the candidate's ability.' (Hughes, 1989 p. 23). Yet small-scale research projects to match scores of candidates on proficiency tests with those on achievement tests (and course work) often reveal a lack of clear correlation between different test scores.

Some reasons for this incompatibility are as follows:

- 1 IFP English assessments may be subject-specific in nature, and do not assess general EAP skills, as is the case with proficiency tests.
- 2 IFP English examinations may assess candidates on their knowledge of previously studied areas of the curriculum. This is not the case with proficiency tests.
- 3 IFP examinations are generally set by language tutors, and marking is undertaken by those who teach the students, rather than by objective markers; this may affect the score in unknown ways.
- 4 Candidates may be given specific types of coaching and advice for different tests; the extent of training for the test within IFP programmes is largely unknown, while candidates frequently 'question-spot' in proficiency tests, so their responses may lack authenticity.
- 5 IFP items may not be trialled as extensively as proficiency test items; thus, they might be viewed more as 'indicative' of a level than as an incontrovertible 'proof' that a level has been reached.
- 6 Personal, individual and psychological factors, and other non-linearities (for example, performance 'on the day') account for some of the variation between test scores; it is nearly always necessary to interview students to ascertain the existence of such factors.

The standardisation / diversification conundrum

What, then, can IFP programme designers do in response to apparently poor correlations between different modes of English assessment? In response to this conundrum, two broad approaches are possible: a move to intensify the standardisation of assessment practices, and a counter-move to amplify the level of information communicated to receiving institutions about a candidate's skills and abilities:

Standardisation Those in favour of more rigorous standardisation believe that assessment can only be deemed valid and reliable if all candidates do exactly the same type of assessment (typically IELTS, or an equivalent proficiency test). No other assessment is good enough. In implementing this drive towards greater standardisation, the tutors' role in selecting appropriate subject-specific input is eroded. Proficiency

testing, which supposedly submits candidates to rigorous external scrutiny, is seen as the most legitimate assessment type, while tutors' views about the students become tangential.

Diversification Those in favour of increased diversification argue that the incompatibility between different types of assessment, far from being an anomaly, is a natural, self-evident reflection of a candidate's range of skills and abilities. Instead of suggesting the need to standardise and simplify, this realisation merely indicates a need for further diversification, to make the information relating to each candidate even more detailed and complete. In such a scheme, there would be room for additional use of peer and self-assessment, and also portfolio building, in which the candidates are placed in a more responsible and reflective position. As McCombs and Miller argue, 'emphasis on standards and testing cannot take precedence over individual learners' (2007 p. 112).

Moving on: some research options

Further research is needed to gain insights into the limitations of score matching and the benefits of diversifying English assessment frameworks. Such research would, ideally, need to incorporate the following features:

- 1 A detailed analysis of candidates' scores on the three standard assessment types, taken in close proximity in terms of time;
- 2 An appropriately sized, randomly selected sample, which is representative of the wider IFP student contingent;
- 3 A prior understanding, on the part of the researcher, that IFP English assessments often measure different skills from proficiency tests;
- 4 Interviews with students after their tests.

 'Debriefing' exercises are part of good practice in formative assessment, and enable qualitative data to be gained about the students' test performance (e.g. the method they adopted to tackle particular items, or why they felt they may have performed less well than expected).

Only after this type of research can we be surer of which path is preferable: the straight and narrow path of standardisation, or the circuitous path of diversification and learner-centredness. Whichever path is chosen, there will be wider implications for washback on teaching and learning. If a 'single shot' proficiency test approach is prioritised, this may lead to teachers 'teaching to the test' and learners becoming increasingly test-dominated. Negative washback may occur where 'the content or format of a test is based on a narrow definition of language ability, and so constrains the teaching/learning context' (Taylor, 2005, p. 154). If a more diverse assessment framework is selected, students may be confused about the relative importance of each component in the assessment scheme,

and receiving institutions will need to be convinced of the value of non-proficiency based assessment practices. It is hoped that the readers of this journal will contribute to this ongoing debate by commenting on which particular approach they themselves prefer.

Hamp-Lyons, L. & Kroll, B. (1996). 'Issues in ESL Writing Assessment: An Overview'. *College ESL*, 6 (1), 52–72.

Hughes. A. (1989). *Testing for Language Teachers*. Cambridge: Cambridge University Press.

McCombs, B. & Miller, L. (2007). Learner-Centred Classroom Practices and Assessments: Maximising student motivation, learning and achievement. Thousand Oaks, California: Sage Publications.

Taylor, L. (2005). 'Washback and Impact'. *ELT Journal*, 59 (2), 154–155.

'A new restaurant for Winchester': Engaging students in experiential learning

About the author



Mandy Ellen Jones Lecturer in ELTSU (English Language Teaching and Support Unit), University of Winchester

'Many international students at The University of Winchester originate from South East Asia and wish to study some form of business degree ...'

This article describes the business project that IFP students carry out in the Introduction to business module at The University of Winchester. The project enables students to engage in experiential learning by putting theory into practice, while individual journals illustrate the process of discovery and learning.

Introduction

Many international students at The University of Winchester originate from South East Asia and wish to study some form of business degree; they therefore look specifically for an IFP that provides a business module. 'Introduction to business' runs for one semester and is a popular choice with these students.

However, teaching these students highlights the genuine difficulties they have in exams or assignments synthesising the skills they have learned. Often, students are seen to repeat facts without any real understanding of how to apply theory.

One reason for this may be their different learning experiences. Confucianisminfluenced concepts of teaching and learning emphasise rote learning; it is therefore important for an IFP to help students make the transition to a western educational philosophy that encourages critical enquiry and dialogue.

'A new restaurant for Winchester'

The aim of this project was to provide a real-world scenario that encompassed the theory learnt over the course and allowed students to apply this learning in a supported and non-threatening environment. Even so, 'experience may underpin all learning but it

does not always result in learning. We have to engage with the experience and reflect on what happened, how it happened and why' (Beard & Wilson, 2006 p.20). Therefore in order to allow students to reflect on their learning and the processes involved, each student kept a reflective journal.

In the first eight weeks of the module, the students were introduced to basic business theories, models and practices and watched programmes such as BBC's The Apprentice or Channel 4's Gerry's big decision. Students saw examples of the business process, from the inception of business ideas to the successful or unsuccessful launch of the product. In addition, the students watched different presentation styles and group dynamics.

The project

'A new restaurant for Winchester'. You need to prepare a business plan to present to your bank manager. This must be aimed at convincing him/her that this will be a viable business venture.

The project takes time to set up as there is a lot of scene-setting and information to assimilate before the students can commence the project. Time is set aside over the following weeks for any questions; this allows students to take ownership of it.

The students work in groups of four or five, and as Cuthbertson (2009) recommends, 'a mixture of male and female, and from at least two continents. This means that they must communicate in English even outside the classroom'. The type of restaurant (Turkish has been chosen to date) is also set to ensure that it is not the national cuisine of one particular student.

By the end of the first week, each group or 'team' must choose a restaurant name and a short explanation of why they chose that name. It has proven to be a successful first team task because it encourages participation, particularly as they can earn marks for the best-named restaurant.

Each team votes for their own team leader who is responsible for overseeing the project. There are six questions to answer: marketing, a SWOT analysis (a useful tool for understanding the internal Strengths and Weaknesses and external Threats and Opportunities to a business), finance and accounting, methods of promotion, recruiting and motivating staff. Each team member answers one question and the rest are answered as a group. However, the caveat here is that, if a team member gets stuck on their question or the rest of the team think it has not been answered in sufficient depth, they may help.

The project is assessed in teams, while the reflective diary is assessed individually. The project assessment is designed to encourage students to apply theories in a practical way, and to further their understanding through their own research. Each of the questions is written to test the practical application of one of the previously learnt theories, and the assessment of the theory is based on the understanding and application in this 'real' restaurant and the depth of their study.

Reflective journals

The reflective journal is invariably a new concept to students and may not be fully understood at first; it is common to find students beginning it as a descriptive journal rather than any form of reflection. Students are encouraged to write in their journals on a regular basis, particularly after group meetings and journal entries are dated.

The aim in keeping a reflective journal is to enable the student to record the progress of their learning. An aide-mémoire provided encourages the student to reflect on and analyse what happens when the team meets up, their thoughts and feelings not just on decisions made but also on group dynamics. The student evaluates these decisions, do they agree or disagree with the other team members? Why or why not? What did they learn from this experience? If it happened again, what would they do? While the student is reflecting on and describing their learning experiences, a critical dimension is added to the journal.

Student journals present a real insight into their thought processes. Most comments mention how much they have learned, not just about the practicalities of

business, but about themselves. One particular journal entry mentioned how much their understanding of different accents had improved; perhaps this was due to the student spending more time and effort listening to others, which improved his overall listening ability. Another mentions visiting a Turkish restaurant to have a look at the food and décor, then interviewing the restaurateurs about costs of comparing real restaurant menus for price and feasibility according to the turnover / number of covers. Thus providing evidence of how the theory underpins the reality of a restaurant business.

Conclusion

At the end of the module, students fill out evaluation forms. All students mention how they enjoyed the project. They also appreciated answering individual questions while being able to monitor others and share ideas within the team. The experience of working in a group and taking ownership of the project made them feel they were producing something worthwhile.

The project illustrates experiential learning at its best. As Kolb (1984 p.8) states 'learning is the process whereby knowledge is created through the transformation of experience'. Certainly the knowledge gained by the experience was varied; taking ownership of the project, learning group dynamics, which many IFP students have not experienced, learning to express opinions, taking responsibility for their own learning and reflecting on this learning. The overall effect is that it produces highly motivated students and a meaningful, enjoyable learning experience.

Beard, C. & Wilson, J.P. (2006). Experiential Learning: A best practice Handbook for Educators and Trainers. London: Kogan Page Ltd.

Cuthbertson, C. (2009). 'Management Studies: into the Dragon's Den?' *InForm* (3), April 2009.

Kolb, D. A. (1984). Experiential Learning: Experience As The Source Of Learning And Development. New Jersey: Prentice Hall.

the project made them feel they were producing something worthwhile.'

'The experience

of working

in a group

and taking

ownership of

Referencing a quotation – how difficult can it be?

About the author



Simon Gooch Learning Support Tutor, Nottingham Trent International College

'... some IFP students have difficulty acquiring the skills involved and this may in part be due to the specific cognitive demands placed on them by what is involved.'

Copying a short text from a source, putting it in quotation marks and adding an in-text reference (writer's family name, comma, date within brackets) seems a relatively simple operation. However, many IFP students seem to find the skill of inserting quotations and referencing them accurately initially problematic. This article suggests that the subskills required to do this may be more complex than they at first appear. It also goes on to suggest that dividing skills such as this into a series of subskills can provide the basis for some simple, practical ways of developing these kinds of academic skills.

On the surface, the ability to support a point by using an appropriate quotation and then referencing it accurately in-text seems a relatively simple skill. Although there may be a number of cultural and contextual reasons why IFP students may have difficulty doing this (see, for example, Lake 2008), it can also be approached from a different angle - that of skill acquisition. Clearly, some IFP students have difficulty acquiring the skills involved and this may in part be due to the specific cognitive demands placed on them by what is involved. First, this article will briefly explore what kind of skills and subskills might be necessary for an IFP student to acquire and develop when, for example, inserting a correctly referenced quotation in their own writing. Then it will suggest how looking at this problem in terms of constituent subskills can lead to easily developed teaching activities which could, in turn, bring about a more successful development of the main skill for IFP students.

One way to look at the overall complexity of a skill is to identify some of the subskills that are required. The simple framework below shows some of these that might be relevant to the accurate insertion and correct referencing of a quotation (there may be more) divided into more process-oriented subskills (grey) and more product-oriented subskills (black):

- Read/understand source
- Relate information in source to proposed points in own text
- Select relevant quotation from source
- Make a decision as to whether it should be a quotation (as opposed to paraphrase/summary)
- Integrate/adapt quotation into own text
- Format quotation correctly

- Place reference in an appropriate place in own text
- Format in-text reference according to convention
- Proofread work and make any necessary changes

Although these are organised in a sequence roughly corresponding to the process a writer may take, it is not suggested that they happen in this order, or that the decisions made are even conscious ones on the student's part. However, it seems evident that these are some of the necessary components in getting from a reading of the source text to a properly referenced quotation in a piece of student writing.

The seemingly relatively simple skill of inserting and referencing an appropriate quotation into a text may therefore be more complex than it appears. The complexity increases further if each subskill is again broken down into parts e.g. 'Format in-text reference according to convention' might involve:

- 1 Knowing how/where to find the biographical information from the original source
- 2 Know conventions for first/family author names (this differs between cultures)
- 3 Knowing punctuation norms for in-text references
- 4 Knowing how to report others' work using appropriate reporting verb, etc.

The knowledge/skills needed to develop this 'simple' skill might therefore run into a large number of relatively sophisticated subskills and require a wide range of quite specialist (and culturally bound) knowledge, which may also vary considerably according to discipline. In other words, the cognitive, cultural and contextual demands may be significant and

this might help explain why many IFP students struggle, at least initially, with skills like this.

Taking a constituent subskill approach to this problem could have implications for the learning/teaching of this and similar academic skills. Firstly, students need practice in and a chance to develop the whole range of subskills outlined above. Present teaching materials, for example, Wallace (2004, p. 83) tend to focus much more on the product-oriented subskills above (e.g. the formatting of quotations and in-text references) while largely ignoring the more process-oriented subskills (e.g. relating the source to one's own point, selection of relevant quotation). In tennis terms this is a bit like asking a player to practise serving into a specific part of the service box without also working on improving how he/she holds the racket, tosses the ball up for service, generates speed from racket movement etc. Both process and product-oriented areas are important. Secondly it provides a way of breaking up the whole skill to enable learners to become aware of and focus on specific areas for development. This is likely to be more successfully done, however, if they are not taught separately, i.e. in isolation, but rather as parts integrated within a real academic task (Johnson, 1996, p.155).

The training of students in general academic skills extends beyond specific EAP provision to subject tutors and lecturers (Cottrell, 2001). To make IFP students more aware of what is involved and to give them skills practice which develops some of the specific subskills above could be done by any tutor and need not be difficult or take up much valuable lesson or preparation time. The following practical suggestions for developing various subskills could be used with virtually any appropriate source text or part of a text (ranging from a business module text book to an appropriate accessible journal article). They could be used in conjunction with, or as a supplement to, the reading of any text for mainly content or critical purposes. (For clarity I have separated out the different activities for each subskill, but these could also easily be built on and sequenced on each other):

- Relate information in source to proposed points in own text. Using a text students have read, give students a statement based on part of the text. Ask them to highlight any parts of the text which could support (or refute) that statement.
- **Select relevant quotation from source.** As above, but ask them to identify/highlight a specific quotation which would support each statement and discuss their decisions.
- Make a decision as to whether it should be a quotation (as opposed to paraphrase/summary). After reading a text ask students to select two or three parts they could take out and use as quotations. Compare in pairs, justify why they chose them. This is best done if a context is given, e.g. You are writing a report on ... or even better with a title they will actually be writing on.

• Integrate/adapt quotation into own text. Using a text students have read, give some unfinished claims or ideas, e.g. 'More evidence for (the negative effects of high tax rates) is ...'. Then give a suggested line number in the text which students could use as part of a quotation to support the unfinished claim. Ask students to put them together meaningfully.

Conclusion

When looked at in terms of constituent subskills, what appear to be quite basic academic referencing skills (such as the accurate inclusion and referencing of a quotation) can be quite complex. However, by focusing on the whole range of subskills needed for a specific academic referencing skill, students may be in a better position to acquire these kinds of skills more easily. Focusing on the subskills can be carried out and integrated relatively easily by any IFP tutor using an appropriate written text in class with a few simple activities.

Cottrell, S. (2001). Teaching Study Skills and Supporting Learning. Basingstoke: Palgrave Macmillan.

Johnson, K. (1996). Language Teaching & Skill Learning. Oxford; Blackwell.

Lake, J. (2008). 'The shifting nature of plagiarism and the challenge to international foundation courses', *InForm*, Issue 1, April 2008, 12–13.

Wallace, M.J. (2004). Study Skills in English. (2nd edition), Cambridge: Cambridge University Press.

'Focussing on the subskills can be carried out and integrated relatively easily by any IFP tutor ...'

The mathematical attainment of international students studying foundation science and engineering programmes: Challenges and strategies

About the authors





Dr Neil Alexander MacLeod (top) **and Dr Michael P McEwan** (bottom) Glasgow International College, Kaplan International Colleges (KIC)

'Students from China obtained consistently high grades in mathematics with all students successfully completing the module.' A thorough grounding in mathematics is key for international students who wish to pursue an undergraduate degree in engineering or science disciplines in UK higher education. However, the diversity in mathematical attainment of international student cohorts can be extremely problematic and often students are prevented from reaching their potential by the presumptions of prior learning. A strategy for proactively identifying and bridging the gap in students' mathematical knowledge is presented.

Introduction

The science-based educational background of international students is as diverse as the cultures from which they emanate. Mathematical subject teaching and curriculum content at UK secondary school level is fundamentally coherent, although some evidence suggests that there has been a decline in students' mastery of basic mathematical skills and level of preparation for mathematics-based degree courses within the UK education system (Savage et al 2000, Shaw et al 1999, Sutherland et al 1995). Moreover, the grades obtained within the UK school systems do generally give a good marker of the potential aptitude of students wishing to pursue undergraduate degrees in engineering and science. Obtaining an accurate and reliable means of assessing the aptitude and numeracy skills of non-EU students is, however, more challenging. If no support strategies are in place to help address this problem, the result can be very detrimental; failure and drop-out rates can be high, and potentially able students are 'turned-off' mathematics for life.

The geographic factor

Glasgow International College (GIC) offers pathway programmes for international students preparing for progression to the University of Glasgow. Within GIC, foundation engineering and science students

study a mathematics module covering basic principles in the first term of studies. For some students, this acts as a refresher course for previous work carried out in their school system. However, for many other students this is an academic hurdle that they can find extremely challenging. The results of this module were analysed for a sample of 115 GIC students. This analysis made it apparent that the attainment of students is heavily influenced by their country of origin, and hence their prior educational background and learning. In total, 29 nationalities were represented; however, many involved extremely small numbers of students. The majority of students were schooled in Nigeria, China and Saudi Arabia (37, 18 and 11 students, respectively).

Students from China obtained consistently high grades in mathematics with all students successfully completing the module. In stark contrast, only 32% of Nigerian students passed the mathematics module at first attempt, with a further 16% passing the module at a further attempt. Furthermore, 45% of the Saudi students were unsuccessful in the module. In total, 41% of the student cohort failed this module. Of this group of failed students, 53% were Nigerian, and an additional 28% was accounted for by students with an educational background originating in the Middle East.

It is important to state that this is not a reflection on academic aptitude, but rather a manifestation of the lack of coherency with mathematical principles considered key and learned within UK higher education. In China, students learn mathematics at both junior and senior middle school at a level appropriate for UK higher education study; although in common with UK students, applied mathematics problems are found to be challenging. In contrast, the evidence suggests that the educational provision for students in Nigeria can be variable in quality and overarching standards are difficult to obtain (Odia et al 2007).

In response to this data, a single cohort of students was surveyed regarding their mathematical educational backgrounds. It was found that many of the struggling students had not studied mathematics at school at a level suitable to begin foundation study, something which would be considered required prior learning for a student entering a science or engineering based degree programme in the UK. As an example, students of certain nationalities reported that their high school advanced maths course was not compulsory for science and engineering students, merely advised.

Potential solutions

It is suggested that a proactive approach be employed to identify and assist these students in their study of mathematics. One key strategy is to identify potentially struggling students before they present, and although this will not solve the issues, it at least forewarns educators of potential difficulties in the cohort. This could be done by initially identifying regions where international foundation students are historically weak at mathematics and targeting these students. A 'baseline test' is currently conducted at student induction at GIC. However in order to instigate remedial action effectively, this should ideally be conducted in the months leading up to commencement of the course.

The baseline test, originally developed by Sheffield International College, assesses the required prior learning at an introductory level. The test is run in all Kaplan International 'sister' colleges and, so far, has generated 340 results for analysis. The test assesses the fundamental mathematical skills which would be acquired in GCSE, or equivalent, study. The test is structured to discretely assess prior learning in key concept areas, such as algebra, geometry, mathematical manipulation, numeracy, etc. On scrutinising a student's script, it is possible to identify any weaknesses in their prior learning by correlating their presented answers with the discrete concept which is assessed. On analysis of the 340 scripts, it was found that there was a correlation coefficient of 0.79 between students' performances in the baseline test with their final mathematics grades (see Figure 1). Therefore, 79% of the points on Figure 1 can be well described by using the

best fit line. It follows that a baseline test of this nature will prove extremely useful in both assessing prior learning, and will act as a reliable predictor of attainment levels.

Final maths result as a function of baseline test result

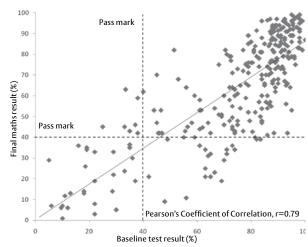


Figure 1: Student performance in foundation mathematics as a function of the baseline prior learning assessment.

What one does with that data is a complex question. If the diagnostic test is designed to assess different subject areas within mathematics, it may be possible to identify missing knowledge and bridge that particular gap. For instance, some students have presented with an excellent grasp of calculus but have never encountered vector algebra. If baseline testing is used as a basis for the design of a bespoke pre-sessional package of material for students, it could potentially be a very successful means of supporting students before arrival. In addition, this may potentially enable an increase in the percentage of students who initially fail the baseline test but then ultimately pass the module (currently 19%). This leads to a simple strategy as illustrated in Figure 2.

Baseline mathematics diagnostic test prior to student arrival

Analysis of results and identification of missing key concepts

Bespoke study package produced for studen

Entry to preparatory foundation programme on successful re-assessment

Figure 2: Diagnostic and remedial framework for foundation level mathematics.

While this framework would lend itself to online provision, the delivery could be carried out by using a paper based pack where necessary. A flexible learning programme could be provided which details the required learning outcomes to bridge any gap. Assessment can be carried out online, with support

'One key strategy is to identify potentially struggling students before they present, and although this will not solve the issues, it at least forewarns educators of potential difficulties in the cohort.'

provided via contact with a tutor. Once students have demonstrated attainment of the required learning outcomes, progression to the foundation programme can occur.

Conclusions

A baseline test appears to provide an excellent indicator of prior learning. This information can be utilised to improve student attainment and progression rates, and can contribute to the reduction of student withdrawals. Ideally, the baseline test should occur with sufficient time for remedial action prior to student enrolment. When provided in combination with a flexible 'open' learning package, it is suggested that the difference between expected and actual prior learning will be reduced and that the baseline test itself will act to quantify this change.

The suggested strategy is only one potential approach, and relies on the effectiveness of the diagnostic test employed, the remedial materials offered and student engagement with the system before starting a programme of study.

Odia, L.O. & Omofonmwan, S.I. (2007). 'Educational System in Nigeria Problems and Prospects'. J. Soc. Sci., 14(1), 81–86.

Savage, M.D. & Hawkes, T. (2000). Measuring the Mathematics Problem. London; The Engineering Council.

Shaw, C.T. & Shaw, V.F. (1999). 'Attitudes of Engineering Students to Mathematics – a comparison across universities'. Int. J. Mathematical Education in Science and Technology, 30(1), 45–63.

Sutherland, R. & Pozzi, S. (1995). The Changing Mathematical Background of Undergraduate Engineers, London: The Engineering Council.

'A baseline test appears to provide an excellent indicator of prior learning.'

Why IFP admissions don't always add up: The need for an International Mathematics Testing System

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Contemporary university admissions tutors are used to navigating the complex matrix of international qualifications, given the ongoing influx of international students which UK Higher Education Institutions benefit from. For colleagues who specialise particularly in admissions onto international pathway programmes, the challenge is heightened further, given the inherent diversity of applicant educational backgrounds and the knowledge required to interpret international academic certification. While admissions tutors have come to rely on internationally-recognised measures of language proficiency, there appears to be less support available for the consistent and accurate measurement of numeracy and mathematical ability which represent crucial core skills for many popular fields of study. Indeed, research in the field, such as the study undertaken by Tout (2000) even appears to acknowledge that a shared international conceptual framework for numeracy is lacking.

International qualifications and interpretation

A number of useful tools are available to admissions professionals in Higher Education, which can assist in the interpretation of academic transcripts from across the world. No doubt, many colleagues will be familiar with the resources provided by UK NARIC (2010), the National Information Recognition Centre for the United Kingdom, which offers invaluable country comparisons and qualification equivalences.

Given the global market for education and the increased need for transferability, it is hardly surprising that examination boards specialising in the administration of internationally benchmarked qualifications continue to experience growth.

Currently there are 2,823 schools in 138 countries operating International Baccalaureate curricula, teaching 778,000 students aged 3–19 years on these courses (IBO.org, 2010), but despite the high number of applicants with such internationally-recognised qualifications, not all overseas students seeking to study in the UK have easy access to courses through their secondary schools which can lead to internationally-recognised examinations.

The language test model – what about maths?

Tests which have been designed for the purpose of providing an internationally-recognisable snapshot of language proficiency are perhaps one of the key emergent phenomena which highlight the market requirement for educational standardisation. IELTS, the International English Language Testing System, is now used by more than one million people each year. IELTS is accepted by more than 6,000 organisations globally (Cambridge ESOL, 2010).

One key feature of the testing industry is the network of regulated test centres with frequent test dates and the spin-off support materials and training centres which ease student access. Test administrations are available in more than 120 countries at over 500 centres, with test dates organised as many as four times a month (Cambridge ESOL, 2010).

While these testing systems are not without their politics and need for enhancement; it seems undeniable, in many situations, that their levelling effect provides the best resources we have in admissions for determining whether a prospective student is likely to meet the linguistic demands of a particular course. Clearly getting this

decision right is of key significance for all stakeholders involved.

Although we take it for granted that students can easily gain access to language tests which provide a snapshot of linguistic proficiency, there does seem to be a gap in the market for an internationally-recognised testing system to determine proficiency in mathematics and numeracy, which is another key foundation skill for many areas of study.

Views from maths/IFP admissions professionals

Currently the mechanisms available to measure the likely success of an applicant, where some degree of mathematical literacy is required are less reliable. Aside from tests which are preceded by lengthy courses of study, there does not seem to be a mechanism for more on-demand maths or numeracy proficiency assessment. The comments below from tutors working across the sector in similar fields seem to agree with this observation.

'The popularity of foundation years serving management, economics, finance and accounting degrees has highlighted the need for mathematical literacy as these undergraduate programmes require a higher level of maths for admission than other social sciences subjects.

'At present, there seems to be an increasing number of foundation-year students who have difficulty in understanding basic numeracy and algebra. Even with extra tuition hours, they sometimes struggle to pass the module in the time available. At Southampton we need a mechanism that gives us confidence that IFP students have the basic numeracy and algebra knowledge that will enable them to pass the foundation year maths unit to reach the equivalent of GCSE maths B or C level within that area of maths.

'As a result, we are developing a Maths Online Screening Test (MOST) that will be used initially to alert students to the level of maths they need in order to pass the maths units during the foundation year and progress to their degree. We would like to engage with like-minded universities to pilot MOST.'

Pat Maier, University of Southampton

'Numerical ability is a major issue. I provide 90 minutes per week of maths/Excel to try to better equip the students for their courses at LUBS (Leeds University Business School). I base my syllabus on the book recommended by LUBS, *Quantitative Approaches in Business Studies* by Clare Morris (2008). In the first class, I do the test at the beginning of the book which covers basic numeracy skills, some of which is primary school level. I also explain the English terminology they did not

know, so poor English should not be a factor. 'We have recently heard back from one of last year's students, who is now halfway through his course. He said how valuable the extra maths help was in allowing him to access the Business modelling module at LUBS. The numeric ability of some students is so low that I feel that they would be wasting their time attempting a business programme. I feel that an internationally-recognised numeracy test would be a valuable tool in optimising recruitment.'

Anne Buckley, University of Leeds

'There appears to be an inherent diversity in the strengths of mathematical expertise and the rigour of syllabus undertaken between students from different international educational backgrounds and indeed, in terms of strength, between students from the same international educational background.

'A relatively small difference in entry grade can

'A relatively small difference in entry grade can sometimes mean a much greater difference in the ability to understand and apply mathematical techniques.

'I am currently investigating with the University's IT Support the possibility of setting up setting up a timed randomised test using questions from a data bank which a prospective student could be asked to access remotely. Of course, we could not totally guarantee integrity from a remote location and so this might have to be done at a "test centre".

'The above comments are particularly relevant in the case of applicants from countries where secondary school leaving qualifications are not benchmarked against a national standard. Even though a transcript may show a grade which appears acceptable, their mathematical competency on arrival is not always what was expected.'

Sue Peel, University of Reading

Mathematical testing currently available

There are a number of existing online numeracy tests. The Move On website (2010) provides a user-friendly mini-test and was commissioned by the (then) Department for Education and Skills (DfES), the Quality Improvement Agency (QIA) and the Learning and Skills Improvement Service (LSIS). The Training and Development Agency for Schools (TDA) also presents a series of more challenging practice materials. However, at present, none of these tests are currently designed to be operational for anything other than a practice or revision purposes. As a result, volume usage and security issues, including the need for reliability and validity, for use as a national test, have not been explored. For university admission purposes, there is a need for a robust benchmarked

'One key feature of the testing industry is the network of regulated test centres with frequent test dates and the spinoff support materials and training centres which ease student access.'

'The authors propose an open dialogue with this topic and would be interested in hearing from other foundation years and how they are resolving these issues.'

test that enables us to compare a student's mathematical competency with that of UK applicants, and a mapping to GCSE or the IGCSE is an obvious way forward.

Moving forward: a proposal

The authors propose an open dialogue with this topic and would be interested in hearing from other foundation years and how they are resolving these issues. Some may want to investigate and work with current online maths tests and report on the pros and cons, some may be using paper tests and would like to share their successes or failures, others may be keen to hear more about some of the ventures mentioned by the contributors to this article others should feel free to say that this is not a problem for them. Whatever we choose to do, we would like to open up the discussion surrounding maths admissions to international foundation years.

International Baccalaureate (2010) The IB at a glance-how the IB has grown. Available from: http://www.ibo.org/who/slideg.cfm [Accessed February 2010)

LSIS (2010) *LISIS Home*. Available from www.lsis.org.uk/ LSISHome.aspx [Accessed February 2010)

Morris, C. (2008) *Quantitative Approaches in Business Studies,* Pearson Education, Harlow

Move On (2010) *Test Your Skills*. Available from: www.move-on.org.uk/testyourskills.asp [Accessed February 2010)

NARIC (2010) NARIC Home. Available from: www.naric.org. uk/ [Accessed February 2010)

TDA (2010) *Numeracy practice materials*. Available from www.tda.gov.uk/skillstests/numeracy/practicematerials. aspx [Accessed February 2010)

Tout, D (2000) 'Numeracy Up Front: Behind the International Life Skills Survey'. *Aris Resources Bulletin*. V.11 March 2000

UCLES (2010) *IELTS – English for International Opportunity*Available from: www.cambridgeesol.org/exams/academic-english/ielts.html [Accessed February 2010)

Book review

Book profile

Title

Study Skills for Science, Engineering and Technology Students

Author(s)

Pat Maier, Anna Barney, Geraldine Price

Publication details

Jun 2009, Paperback, 440 pages

ISBN number(s)

ISBN13: 9780273720737 ISBN10: 0273720732 In this age of the 'knowledge explosion' it is vital that individuals become lifelong learners. Set into this framework of lifelong learning and personal development, the authors deal with the specific skills that students need to succeed in higher education. Topics include time management, note taking, essay writing, exam and revision skills, problem solving, critical thinking and team working. Specialist skills for scientists, such as laboratory practice, writing scientific reports and solving mathematical problems are also covered effectively.

The style of this book makes it readable, accessible and relevant. I like the use of humour and pertinent quotes that lighten the text and also the self assessment activities reflecting student experiences are effective. At the end of each chapter there is a reminder to 'Update your Personal Development Plan', a prompt in line with University good practice.

This study advice textbook aimed at science students makes a welcome addition to resources of this type. It is comprehensive and well written and a student who follows its advice would do well. Tutors will also find it useful.



Dr Prue GriffithsSchool of Biological Sciences,
University of Reading

Call for papers

InForm is a journal of teaching and learning-related issues for members of the academic community associated with international foundation programmes.

The submission of papers is now invited for the sixth edition of *InForm*, from tutors who represent a variety of academic disciplines commonly found within international foundation programmes. The sixth edition will be published in October 2010.

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For further information, please contact:

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