

## RECAP Series

### Paper 30

The CEM Model:  
developing an operational  
model and strategic framework  
to support the in-sessional  
delivery of academic literacy to  
international students

Diane Sloan & Elizabeth Porter

**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

## **The RECAP Series; Researching the Challenges in Academic Practice**

These are published by MARCET Staff Development Resource Centre on behalf of the University. Papers in this series will report research-based and evidence-based approaches to learning, teaching assessment and learning supported in HIGHER EDUCATION.

The SERIES Editorial Board includes members of the Northumbria RECAP Research Network.

This paper has been externally assessed by Alicia Creswell, Head of Writing Development. Newcastle University

The guides may be reproduced for work with, or distribution to, students of Northumbria University and can be purchased by those outside our own institution.

The author (s) of this guide:  
Diane Sloan & Elizabeth Porter

Northumbria University

First edition: ISBN 13 – 978 1 86135 455 6

British Library Cataloguing in Publication Data

*A catalogue record for this book is available from the British Library*

© Northumbria University 2009

## Abstract

The paper documents the background, research and preliminary findings relating to a key area emerging in Higher Education institutions in the UK: providing academic literacy skills to support international students running concurrently with their degree programmes. The impetus to undertake the research presented in the paper is in response to a strategic institutional initiative to support international students and at an operational level to address the key issues of:

- student attendance,
- lack of student engagement
- limited contact between the English language and subject specialist.

The paper presents research carried out jointly by an academic literacy specialist and a Programme Director in the postgraduate area of Newcastle Business School at Northumbria University and will be of use to subject specialists who collaborate with academic literacy tutors. The paper presents a critique of past practice and covers research and feedback from conferences leading to identification of key issues influencing the attendance and participation of overseas students on an in-sessional academic literacy programme. To address these issues and provide guidance for colleagues a model was developed, the CEM Model, which identifies contextualisation, embedding and mapping as the foundation for improving academic literacy programme provision which is applicable for students and staff delivering academic literacy support at all levels and mode of study. The findings show that

**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

application of the CEM Model is already demonstrating added value in the key areas of student attendance, understanding of the relevance of the academic literacy programme and integration within degree programme learning objectives and outcomes. To address the issue of sustaining the benefits of the CEM Model the work concludes with the development of a framework which establishes the integration of the academic literacy programme within programmes both at the strategic level through Teaching and Learning policies and at operational level through programme and module development. The paper concludes with the **CEM 10 Point Checklist** as a starting point for evaluating your own academic literacy provision and its future development.

## Introduction

Statistics show that Higher Education institutions within the UK continue to be a major destination for international students as shown in Table 1.

**Table 1: International students in UK HE: Level of study. (UKCISA, 2009)**

| <b>Non-EU students in HE,</b> | <b>F/T</b>     | <b>P/T</b>    | <b>Total</b>   |
|-------------------------------|----------------|---------------|----------------|
| Postgraduate research         | 23,410         | 3,820         | 27,230         |
| Postgraduate taught           | 77,360         | 13,350        | 90,710         |
| Postgraduate other            | 2,930          | 4,335         | 7,265          |
| First degree                  | 80,060         | 6,690         | 86,750         |
| Other undergraduate           | 7,940          | 9,750         | 17,690         |
| <b>Total non-EU</b>           | <b>191,700</b> | <b>37,945</b> | <b>229,645</b> |

**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

As Table 2 shows the majority of international students are from China and the Pacific Rim, and as identified by Turner (2005) the internationalisation of Higher Education is now a key area within the academic sector. As Northumbria University ranks twelfth in the largest recruiters of international students, the how and the what of academic literacy support provision now presents a major challenge to not only us but all other recruiting institutions (UKCISA, 2009).

**Table 2: Top non-EU sending countries. (UKCISA, 2009)**

| <b>Top 10 non-EU senders</b>              | <b>2007/08</b> | <b>2006/07*</b> |
|---|----------------|-----------------|
| China (PRC)                               | 45,355         | 49,595          |
| India                                     | 25,905         | 23,835          |
| United States of America                  | 13,905         | 15,955          |
| Nigeria                                   | 11,785         | 11,135          |
| Malaysia                                  | 11,730         | 11,810          |
| Hong Kong (Special Administrative Region) | 9,700          | 9,640           |
| Pakistan                                  | 9,305          | 9,305           |
| Taiwan                                    | 5,615          | 6,795           |
| Canada                                    | 5,005          | 5,010           |
| Japan                                     | 4,465          | 5,705           |

This paper presents the findings of research from which has emerged an operational model and strategic framework designed to support development in the teaching and mapping of academic literacy for international students.

**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

Spack (1997) narrowly defined academic literacy in universities as the ability to read and write the various texts assigned. Braine (2002) argues that there is much more to academic literacy than this. He argues that the socio-political and cultural dimensions of acquiring academic literacy need to be considered. He describes the needs that students have if they are to be successful in interacting with their tutors, their dissertation supervisors and peers. He maintains that students need to be able to interact in the host environment and interact appropriately in the culture of their academic departments.

Much of the research on academic literacy at graduate level has focused on the development of academic literacy for writing tasks (Canseco and Byrd 1989; Casaneve and Hubbard 1992; Gosden 1996). However Dong (1996) found the main problem for students was not completion of the writing tasks but “the lack of membership and social contact” (p453) with the students’ chosen academic discourse communities. Students’ understanding of what that academic discourse community expects of them is dependent on their ability to interact with that community. Braine (2002) supports this when he argues that students need “sound social skills” (p65) when interacting with peers, supervisors and tutors if they are to be successful.

The teaching of academic literacy to international students in Higher Education has been informed for decades by research and practice in what has been called English for Specific Purposes (ESP) and English for Academic Purposes (EAP). More recently there has been a drift towards adopting a more specific subject-based approach to the teaching of EAP (Hyland &

**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

Hamp-Lyons 2002). Supporting this approach, Hyland (2002 p.394) argues that:

*“effective language teaching in the universities involves taking specificity seriously. It means that we must go as far as we can.”*

For academic literacy tutors this means understanding the language used in specific academic contexts and organising the learning around subject specific, purposeful activities (Dudley-Evans and St John 1998). The approach suggests too that it is important that the content should be relevant to learners' goals and that this is most likely to motivate them (Flowerdew and Peacock 2001). However academic literacy tutors have limited field specific knowledge and are not always the best judge of what will interest and motivate their students (Murray & McPherson 2004). It seems appropriate therefore for academic literacy tutors to develop a working partnership with subject specialists. However institutional constraints and unwillingness of would-be collaborators can be major obstacles to teaching partnerships.

Dudley-Evans (1984) suggests the solution to these problems is collaboration between subject specialists and the academic literacy tutors with different levels of cooperation across disciplines. Much has been written of his experience at Birmingham University in the 80s (Johns and Dudley Evans, 1980; Dudley-Evans 1984, Dudley Evans, 1995), where the collaboration catered for sessions with a small group of students who were considered to need help with English language skills.

**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

However such collaboration is not as easy to achieve as is frequently assumed (Tajino, James and Kijiima, 2005). Hyland and Hamp-Lyons, (2002, p3) hold the view that academic literacy tutors tend to “work for rather than with subject specialists.” Collaboration, where it is achieved, rarely extends beyond two or three disciplines. Saunders (2006) suggests that results and findings from degree programmes should inform the design of academic literacy programmes. Pilcher (2006) reported on the effectiveness of teaching academic literacy from the students’ perspective while completing their master dissertations and recommended that there should be more links between academic literacy tutors and academic departments in order to improve the quality of academic literacy support.

In an interview by Newman (2008) Professor Edwards, Director of the National Centre for Language and Literacy, University of Reading supports this in the Times Educational Supplement of February 2008 when he says:

*“... there is scope for exploring ways in which EAP tutors can collaborate with subject teachers to ensure that support materials are more sensitive to the needs of students speaking English as a foreign language...”*

The above literature and Professor Edwards’ comments imply that collaboration between the academic subject specialist and the academic literacy tutor is a key issue requiring further investigation. The paper responds to this by focussing on the issue of how to meet the need of delivering an in-sessional academic literacy programme running concurrently with degree programmes which is



**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

fully integrated within the content of the subject discipline.

Acknowledging the above, this paper examines the relationship of the delivery of in-sessional English language support within the post graduate area of Newcastle Business School at Northumbria University. In line with the internationalisation policy of the University Newcastle Business School represents one of the main destinations for recruited international students. As student numbers have risen so too has the realisation of the importance of ensuring a quality learning environment and experience to complement study programmes. Central to this is the recognition of the role of language and the need to increase staff and student understanding of the importance of integration of academic literacy within academic learning.

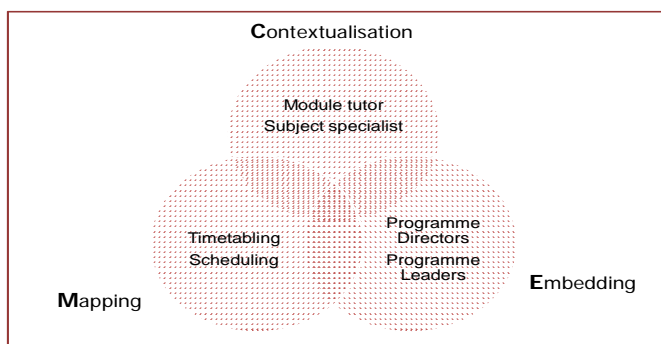
The paper presents research allowing identification of emerging issues relating to the delivery of academic literacy. For the purposes of this research, the development of academic literacy for the postgraduates in Newcastle Business School is understood in the broadest sense of the term. It involves teaching writing and reading skills, including analysis of assignment briefs, planning a critical discussion, supporting arguments and acknowledging sources, identifying key themes and ideas, and selecting and prioritising information in texts. It also involves discourse conventions and genres, communication skills for interacting with supervisors, tutors and peers and oral modes of communication in the context of their business studies. Finally students are asked to consider cultural dimensions of acquiring and developing academic literacy.

**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

This will lead to a discussion on the identification and development of the CEM Model (Figure 1) which identifies contextualisation, embedding and mapping as the foundation for improving academic literacy programme provision and supports a working partnership between academic literacy specialists and academic subject specialists.

Underpinning the development of the CEM model is recognition of the need to establish a collegiate approach to learning between staff and students, and to enhance the learning experience of the students through induction and guidance procedures aligned to their academic development. The paper also presents a strategic framework which demonstrates how, through integrating the practise of the CEM model into learning and teaching policy, the advantages of its use are sustainable

**Figure 1: The CEM Model**



**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

and transferable. The latter point of transferability is significant, as whilst it is acknowledged that the paper focuses on postgraduate students in Newcastle Business School the model has shown applicability at undergraduate level and demonstrates the capability of supporting a range of different levels, group sizes and modes of study. The aim of the paper is to:

- Present an operational model and strategic framework which supports the delivery of in-sessional academic literacy programme capable of supporting international students.

The objectives of the paper will be:

- To address the diverse needs of the international student learning community through improving the context in which the academic literacy programme is delivered. The paper will evaluate the appropriateness of the current method used to inform the content and timing of support and provide information as to how that could be enhanced in order to provide a more effective model for support.
- To contribute to the quality of learning agenda by linking the effectiveness of the delivery of academic literacy to the taught academic programmes.
- To develop a contextualised academic literacy programme, in this case in a business context, to engender the

**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

development of transferable written and oral skills.

- To investigate how students can gain maximum benefit from their specialist subjects by ensuring that they are equipped with language skills at the most appropriate times for their learning.

## Methodology

The primary research supporting the paper is a small scale longitudinal study using a combination of quantitative and qualitative data collection tools to explore the learning styles and experiences of postgraduate Masters students based in Newcastle Business School. The aim of the data collection was to elicit student and staff views with the purpose of evaluating the traditional model of academic literacy delivery versus the newly proposed model. The paper uses preliminary findings from students and staff from 2005-06 onwards using quantitative data collection, focus group interviews with students, interviews with key academic staff and attendance at relevant student and academic meetings. The quantitative findings were analysed using Excel, the qualitative were recorded and analysed using a basic grounded theory approach to identify the key issues and themes as discussed in the following sections (Silverman 2001, Gill & Johnson 1991).

## Review of past practice

As the first stage in the process the academic literacy and subject tutor decided to review and critique the approach adopted in the content and delivery of the academic literacy programme, and more significantly how this is communicated to the students. Within Newcastle Business School the design and delivery was informed firstly by the expertise of English language specialists in English for Academic Purposes and secondly by a language training needs analysis process carried out with students in the first week of the in-sessional programme. The syllabus was designed through a process of analysing student needs and materials were developed in order to allow delivery of *generic* academic skills capable of supporting students from a variety of programmes and schools.

In respect to communication the role of Newcastle Business School, reflecting practice across the University was administrative by supporting registration of students on to the academic literacy programme through posting group lists on notice boards and giving students directions to their sessions in the English Language Centre. Specifically the School facilitated communication with postgraduates by inviting the academic literacy specialist to make Induction Week presentations, with the aim of encouraging students to attend the optional in-sessional programme. On reviewing the scheduling of the presentations academic literacy tended to be aligned with others made by satellite services to the academic programme itself, such as Student Services, the Counselling Service and the Chaplaincy.

**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

By contrast, the role of the English Language Centre was registration of all international students in the University, approximately 3000 students. Such was the administrative burden of this process that teaching of the in-sessional academic literacy programme was not scheduled to start until Week 3, two weeks later than the start of formal subject module delivery. In reality there were frequent changes to group lists since students found that the sessions clashed with their postgraduate programme seminars.

## Emerging issues

A critical analysis of past practice, combined with the results of the data collection exercise, revealed three key issues relating to content and timing.

1. The academic literacy programme was seen by students and staff as an 'optional extra' outside the academic programme.
2. A lack of synergy between the subject specialists and the academic literacy tutor led students to undervalue the academic literacy teaching and students failing to recognise the transferability of the academic literacy programme across their business modules.
3. The delivery of the academic literacy programme ended at Easter, 5 months before students submitted their dissertations.

Issue 1 related to the international students' perception of the role of the academic literacy programme in their

**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

learning agenda. As previously mentioned, the role and purpose of the academic literacy programme were presented to the students during their initial induction week. The language specialist would normally be scheduled to present to the students within the group of presentations aligned with non-academic activities. Whilst recognising the importance of such activities this created two issues from the student perspective.

- Firstly, the placement of the academic literacy programme with none academic subjects created the impression that it was therefore an 'optional extra' outside their academic programme.
- This in turn led to the misapprehension that the key area of English language development was abstract from their overall academic programme and learning agenda.

This misapprehension was supported by Issue 2 which highlighted the lack of involvement of any subject specialists in the analysis of students language needs. This resulted in delivery of the academic literacy sessions to mixed cohorts of students using a general academic context for the teaching of language skills. As a result, the students undervalued the skills teaching and failed to recognise the transferability of the core skills. The academic literacy programme therefore lacked direct links to learning areas which could have been identified by the subject specialist which could be directly linked to lack of synergy, between the subject and language specialists.

The third issue relates to the timing of the delivery of the academic literacy. Specialist module teaching began in

**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

Week 1, the academic literacy sessions began in the third week of teaching and more significantly; as there was no formal representation of the sessions on the students' timetable. This again corroborated in the students' minds the fact that the academic literacy programme sat outside their academic subjects and reinforced the separate nature of the English language provision.

Finally the analysis of past practice raised the issue of the dilemma for students between attending the academic literacy support sessions and meeting their submission deadlines. The cumulative effect of the issues outlined above resulted in the perception that the programme was optional with the students opting for self exclusion as the semester progressed deadlines to complete assignments took priority.

**Preliminary findings: contextualisation, embedding and mapping emerging issues**

The cumulative effect of these issues raised questions both at a strategic and operational level within the university about the relevance and timing of the in-sessional academic literacy programme. As a result of the fieldwork, three key themes emerged as pivotal in the project:

- *Contextualisation* relating to the context in which the academic literacy programme was presented and communicated to the students;



**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

- *Embedding* identifying the position of the academic literacy programme within the overall academic programme; and finally
- *Mapping* identification and understanding of the postgraduate student needs in relation to academic literacy and the appropriateness and timeliness of the academic literacy programme throughout the academic year.

These three themes and how they were addressed are discussed below.

***Contextualisation: specificity versus generic.***

As identified earlier specificity implies teaching language skills in the context of the subject which is being studied (Hyland, 2002). This therefore raised the question of how to provide a subject specific context through inclusivity between the business module tutors and the academic literacy tutor. To achieve this the Module Tutors for two core modules, taken by all postgraduate students on their Masters programme agreed to have their modules analysed from a language perspective: the Dissertation module and a Human Resources Module (HRM) entitled “Analysing and Developing Self”. The modules were analysed from an academic literacy perspective with the academic literacy tutor having access to business module descriptors, assignment briefs, marking criteria and subject-specific teaching and learning plans and materials. Further meetings between the academic literacy and subject specialists took place, complemented by shadowing of the academic staff during lectures and seminars which allowed the language specialist to understand what the students

**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

were required to demonstrate in their assessments and seminars.

The use of the context of the HRM module allows students to develop their academic literacy skills in a meaningful context. Some of the literacy skills acquired in that context are transferable to other modules on their programme. For example, learning to critically review an HR topic such as self analysis and self development raises their awareness of the transferability of their critical thinking skills to other modules. For example this can be illustrated through students application of these skills in creating a critical appraisal of the role of real options in making strategic investment decisions in the Global Financial Management programme.

The assessment task for “Analysing and Developing Self” focuses on skills and abilities which are transferable to the workplace, involving the students in problem solving and face to face interactivity. Dovey (2006) argues that in many courses which are becoming more vocationalised, face to face interactivity is an important communicative mode, with less emphasis being placed on text mode.

In line with the view of Snow (1997), who argues that academic literacy professionals can be valuable resources to subject specialists, the opportunity to review academic teaching and learning plans for analysis proved invaluable. The resulting redesigned academic literacy syllabus was presented to Business School Programme Directors and Leaders for further analysis and comment. This draft syllabus was then negotiated with the Module Tutors, who are ultimately responsible for the delivery of the subject modules. The resulting contextualisation addresses the key issue of

**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

lack of contact between the academic literacy tutor and subject specialist with the final programme syllabus, informed not only by the language specialist, but also by the subject specialists and Programme Directors and specific Module Tutors.

***Embedding: integrated with academic modules***

Embedding relates to changing the perception of specialist staff and international students from one where the academic literacy programme is seen as abstract and optional, to one where it is recognised as a core part of their academic programme. Analysis of the data collected revealed that in order for the embedding to be effective, five key areas had to be addressed:

1. The placement and targeting of the introduction to the academic literacy programme required review and redesign. The decision was made to remove it from the slot associated with non-academic activities and reschedule and subsequently re-enforce its association with academic subject briefings.
2. The timing of the academic literacy programme delivery was altered from commencing in Week 3 to Week 1. The explicit message was established that the programme was starting in parallel with and had the same status the students' business modules.
3. The means of communicating the time and place of the academic literacy programme moved from lists on notice boards to explicit representation on the students' programme

**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

timetables. On the surface this would appear to be a minor change but in practice this represented a major cultural shift by the Business School and reflected recognition of the importance of the academic literacy programme at both staff and more significantly student level.

4. The integration of the academic literacy tutor within the subject teams. Past practice created a relationship of “them and us”. A more inclusive and supportive partnership was achieved through active invitation and participation of the academic literacy tutor in regular management meetings at Programme Director and Programme Leader levels, ensuring understanding of what the academic literacy programme could provide and how this could be incorporated more effectively into each specific Masters programme.
5. The extent of Newcastle Business School management support for the academic literacy programme was critical. None of the above changes could have taken place without support occurring at a number of management levels. At a macro level, key decisions relating to the central timetabling of the academic literacy seminars were sanctioned at Associated Dean level, whilst at a micro level, the supporting role of the Programme Directors, Programme Leaders and Module Tutors was essential. With such initiatives the role of the project ‘champion’, a senior subject specialist,

**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

cannot be underestimated. This key role is needed to promote, drive and maintain the profile of the project to key individuals and staff with the purpose of achieving visibility and co-operation.

The combination of focussed targeting, timing, timetable representation, integration into subject teams, role of champions in supporting both the academic literacy tutor and programme contribute significantly to addressing the issue of lack of student engagement. All the variables referred too cumulatively presented an explicit message to the students through both processes and operational activities that the academic literacy programme was an essential and integral part of their overall programme of study.

***Mapping: timing of language support***

Provisional findings indicate that students are more likely to acquire features of language as they need them, not at a time determined by a set syllabus. Thus it would seem appropriate to identify their patterns of working on their dissertation more accurately so that the academic literacy programme could provide support in key areas at the right time. There is the need to reach a clearer understanding of how and when students work on their dissertations so that language support can be delivered at an optimum time for student learning. With this clearer understanding of how students work, the opportunity to map language support to actual need is greatly enhanced.

Within the post graduate area of Newcastle Business School, traditional practice is to deliver the in-sessional programme across two twelve-week blocks between October and April. Postgraduate students formulate

**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

their research proposals and have approval on their research task from their dissertation tutor before the end of teaching in the first semester in December.

The in-sessional programme would have a focus on dissertation writing skills in the second 12 week period between January and March. Areas covered would include writing and study skills for the completion of the Literature Review chapter. It would also provide language skills for communicating research objectives and presenting and discussing research data. Topics such as quoting skills and avoiding plagiarism would also be part of the programme.

At the start of this research the academic literacy programme did not map to the students need for support at the time they were writing their dissertation. Students produced predicted schedules of their research which indicated that they spread their study across the period January to July. The data analysed from the results of student questionnaires shows that their actual work patterns were very different. Figures 2-4 show their work patterns were focused in a period after the academic literacy programme had ended when there was no further support from the academic literacy tutor.

**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

Figure 2: Month students started data collection

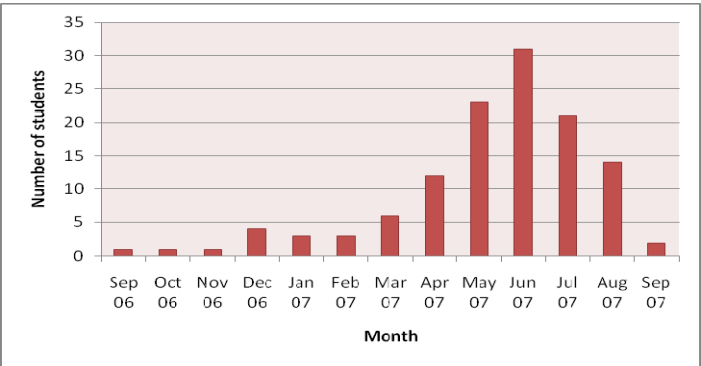
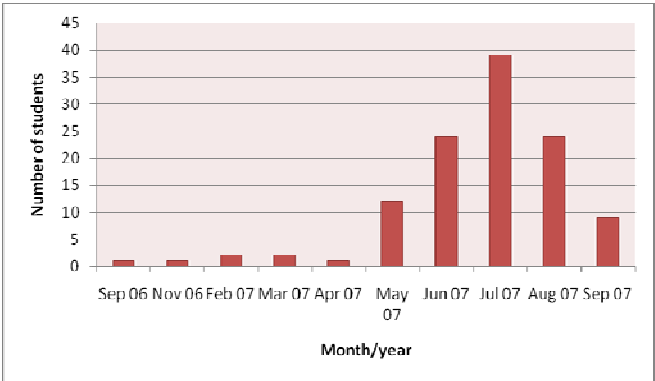
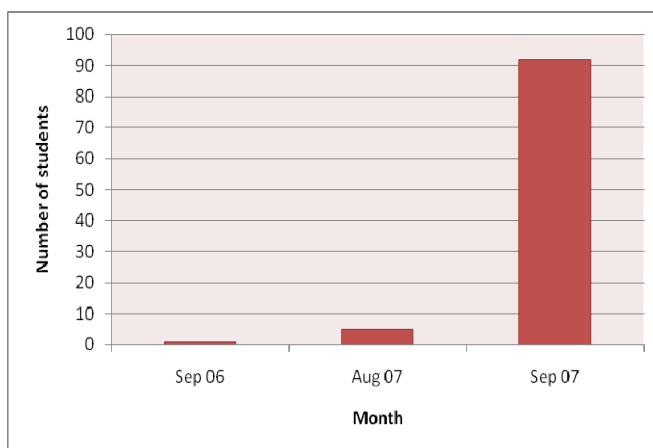


Figure 3: The month the students began data analysis



**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

**Figure 4: Month student handed in their dissertation**



It is evident from the data in Figures 2-4 that most of the dissertation activity is done in the May to September period. There may be several reasons for this, ranging from time constraints (exams and assignment submission deadlines in mid May) to the wish to collect data from sources on their return to their own countries.

It is important that we address the language difficulties of students not only from the academic literacy specialists' perspective and from the students' perspective but also from the perspective of the expert informant, the subject specialist. To address this integral to the process of mapping is a two way process of communicating needs between the language and the subject specialists. Introducing a new way of working, to facilitate good communication, the practise of producing regular updates was adopted. This involved reporting on the content of the academic literacy sessions and the responses of the international students to their teaching



**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

and learning. The academic literacy specialist sent initially fortnightly, leading to monthly updates to Programme Directors, Programme Leaders and the specific Module Tutors. The subject specialists are able to respond to the reports, commenting on the focus of the in-sessional programme and more importantly create a dialogue identifying issues for further consideration.

### Added value of the CEM Model

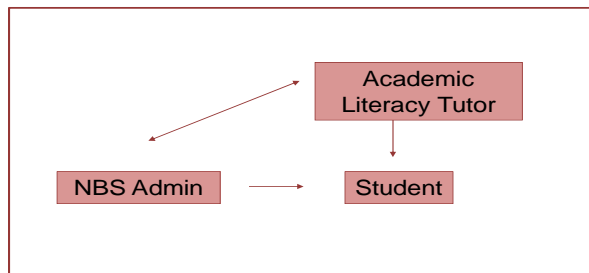
The following section reviews the evidence supporting the implementation and the visible outcomes of implementing the CEM Model within Newcastle Business School. Figures 5-6 identify a pictorial representation of the approach to the in-sessional academic literacy programme delivery before and after the introduction of the new CEM Model. Design and delivery of the CEM Model led to recognition of the fact that more 'actors' were required to participate and contribute to both the management and delivery of the academic literacy programme if it was to be effective and sustainable in supporting students' learning.

#### ***Before and after CEM***

Prior to the introduction of the CEM Model, as shown in Figure 5, outside the student only two key actors have been involved. By contrast Figure 6 identifies the necessary actors required to ensure the successful adoption and implementation of the model. In the past only two key factors have been

**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

Figure 5: The management of the academic literacy programme before CEM.



involved, Newcastle Business School administration and the academic literacy specialists from the English Language Centre. The figure captures the limited number of participants and communication channels involved in identifying and formulating in-sessional support. More importantly the lines of communication demonstrate the lack of inclusion of all the key elements identified in the previous discussions as critical to obtaining synergy and cohesiveness of overall delivery.

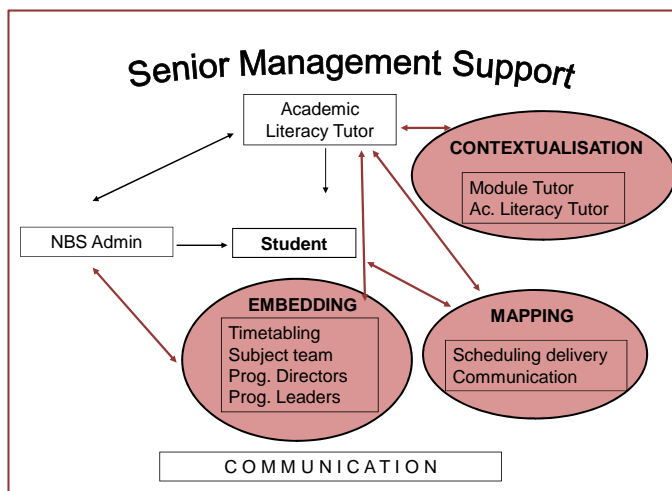
The resulting CEM Model depicted in Figure 6 demonstrates the additional elements on the right and in the entire model shows how, as a result of the research, the key issues emerging have been addressed. The addition of the coloured arrows represent additional and improved lines of communication and CEM graphics

**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

denoting additional participants capturing the enhanced level of explicit communication and understanding.

Critically the CEM Model depicts the necessary participation of all the 'actors' and in particular the increased lines of communication at all levels. The explicit inclusion of the Module Tutor and academic literacy tutor directly addresses the issue of *contextualisation*, in particular the argument of

Figure 6: The management of the academic literacy programme post CEM.



specificity versus generic contexts. It also ensures that the content of the language support sessions are relevant to the academic programme and furthermore appear relevant to the student.

**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

The inclusion of Programme Director (PD) and Programme Leader (PL) address the issue of embedding. Without the support of Senior Management, the physical placement of the language support sessions on the student timetable, an indirect, but subtle signposting of the importance of the sessions within the overall academic programme would not have been possible. This latter point was re-enforced more explicitly through the involvement of the PDs and PLs and their ongoing involvement in the content and promotion of the academic literacy sessions.

### ***Student attendance***

In respect to mapping, the current schedule of the academic literacy programme has attempted to address patterns of learning emerging from current informal feedback from both staff and students. This exercise is ongoing but, as will be discussed below, earlier indicators show that the approach depicted in the model is already revealing highly informative findings.

From the student perspective the implementation of the CEM Model has been shown to be successful in a number of areas. Going back to the issue of student attendance an analysis of the attendance figures for the academic literacy programme following the implementation of the CEM Model revealed that student attendance had increased threefold in academic year 2007-08. Tables 3 and 4 show the marked increase in attendance following introduction of the CEM Model in September 06.

**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

**Table 3: Attendance statistics – 2005-06 (before CEM)**

|               | Semester 1 |           |           | Semester 2 |           |          |
|---------------|------------|-----------|-----------|------------|-----------|----------|
| Week Number:  | 2          | 7         | 11        | 2          | 7         | 10/11    |
| Group 1       | 10         | 6         | 4         | 17         | 16        | 0        |
| Group 2       | 25         | 10        | 4         | 18         | 16        | 0        |
| Group 3       | 18         | 13        | 11        | 12         | 13        | 3        |
| Group 4       | 25         | 13        | 8         | 8          | 4         | 3        |
| <b>TOTALS</b> | <b>78</b>  | <b>42</b> | <b>27</b> | <b>55</b>  | <b>49</b> | <b>6</b> |

**Table 4: Attendance statistics 2007-08 (post CEM)**

|               | Semester 1 |            |            | Semester 2 |            |           |
|---------------|------------|------------|------------|------------|------------|-----------|
| Week Number:  | 2          | 7          | 11         | 2          | 7          | 10/11     |
| Group 1       | 40         | 31         | 25         | 19         | 12         | 6         |
| Group 2       | 47         | 33         | 29         | 43         | 17         | 8         |
| Group 3       | 67         | 64         | 50         | 43         | 38         | 33        |
| Group 4       | 50         | 42         | 42         | 16         | 24         | 14        |
| Group 5       | 46         | 42         | 41         | 37         | 40         | 16        |
| <b>TOTALS</b> | <b>250</b> | <b>212</b> | <b>187</b> | <b>158</b> | <b>131</b> | <b>77</b> |

### ***Newcastle Business School Student feedback***

Data from student focus groups and questionnaires indicated that students understood the relevance of the programme and transferability of the academic literacy skills to other modules. As illustrated in the following quotes from the focus groups:

*“We’re being briefed the detail of things, how this should be done, how the assignments have to be done and everything is explained.”*  
Chinese student

*“I learned more from the English session, more than my expectation. I thought skills or report writing skills I should learn from my (business) tutor.”*  
Thai student

**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

Students commented on the transferability of the skills they were learning on academic literacy, despite the teaching context being based on only two of their degree modules:

*"It's quite relevant to other subjects because we can totally understand how to go on with that exactly. It really helps us with writing assignments."*

Egyptian student

*"This is to inform to you that I am a student of your ASk seminar group. I got 74 marks in my Developing self assignment. This all because of your guidance and support I am able to get this much marks. Thanks a lot for helping me and making this assignment for distinction level without your support and guidance I can't imagine this much marks."*

Indian student

**Newcastle Business School Academic staff feedback**

In addition academic staff have commented:

*"My view of the effectiveness of the CEM model in Newcastle Business School is that it significantly transformed the way that we look at enabling international students to participate in the learning process. The worry has always been whether students can participate in the learning process due to their language issues and I think this just help us to remove or mitigate against that particular variable and therefore I think it's a huge step forward in terms of actually supporting students rather than simply teaching them."*

Associate Dean

**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

*“...we get very positive feedback from students who attend the sessions, we get real reassurance that what is being provided in those sessions integrates well with what the management programmes are about, whereas obviously previously, it was more like an English language course which was delivered, which had little direct relevance to what we were doing and wasn't perceived to be particularly needed by the students even though they probably did need it.”* Module Tutor

*“I think we've developed a system that's working. I think it's now involving far more people than it ever has in the past, so it's been running in such a way that, through the initiatives of the ASk people – tutors – they have involved more members of staff than ever before and that can only be a good thing. People are readily recommending students to ASk as well because of that so its presence is recognised and as a result of that I think it's certainly improves student performance.”* Programme Director

### ***Internal and external validation***

Since its adoption in Newcastle Business School postgraduate, the CEM Model has been recognised both internally and externally as an exemplar of good practice. Following the British Council inspection of the English Language Centre the Chief Inspector said in his feedback session that he was "very impressed" with the CEM Model ...it was a "model for other institutions to follow". Internally the Northumbria University's Learning and Teaching Committee has sanctioned the adoption of

**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

the model as the template for delivery of academic literacy across the University. This demonstrates the transferability and flexibility of the model in that it can allow for different levels of contextualisation in other Schools. For example in a different school in the University, it was thought appropriate to link academic literacy to two existing postgraduate modules, Research Methods and Project Management Studies. The academic literacy teaching and learning plan mirrors the content of these two modules. Academic literacy is presented to students as an integral part of the modules and the academic literacy tutor is embedded in the module teams and is involved in the formative assessment.

In the same school, in the undergraduate area, the nature of the linguistic challenges facing direct entry third year students led to academic literacy being developed as a 10 credit module, Academic Communication. The UG Programme Director was able to influence the content of the module and the nature of the assessment.

In Newcastle Business School's undergraduate portfolio a review of all first year programmes in 07-08 led to the introduction of a series of core modules. It has been possible for the academic literacy tutor to analyse the content of three core modules, identify key learning points that can be supported by academic literacy and tailor the academic literacy teaching and learning plan (TLP) to meet the needs of students to build on their existing academic literacy skills. The final academic literacy TLP was the result of cooperation between the academic literacy tutor and Newcastle Business School UG Programme directors, leaders and module tutors.



**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

This can be illustrated in Schools with relatively small numbers of international students, it is not always possible to group those students in year groups or programme groups for academic literacy. It can also be difficult to identify a common core module and this has meant that in these cases the context of academic literacy teaching remains generic. However the communication between the academic literacy tutor and the subject specialists, does allow the subject specialists to inform the academic literacy tutor of key areas which need support and to offer a context for some but not all of the academic literacy teaching and learning materials. Where the context of academic literacy is not transparently connected to a single module, embedding and mapping become even more important if the students are to recognise the validity of the academic literacy programme for their studies.

**Teaching and learning initiatives emerging from CEM**

International students on any academic programmes face many challenges linked to language and academic skills. Students with borderline English proficiency levels can face considerable difficulties in the four language skills areas of listening, speaking, reading and writing. Acknowledging this the identification and implementation of the CEM Model and academic literacy specialist's reports from the seminars have revealed some interesting issues related to the teaching and learning agenda.

### ***e-learning platform: Blackboard***

One example of this was related to the international students' use of the e-learning platform, in the case of Northumbria University, Blackboard. The platform allows them access to the Teaching and Learning Plans, lecture notes, handouts, module assignment briefs and Directed Study texts for each module.

In academic literacy sessions, it had become clear that the majority of international students had been unable to locate the TLPs, which were located after several pages of lexically dense text explaining the aims and objectives and learning outcomes of the module. Faced with a considerable volume and complexity of text to both process and understand, few students had ventured further, unknowingly missing key module information. The academic literacy specialist was able to report the student difficulties to the Programme Director for E-learning and subsequently changes reflecting standardisation of the menu and terminology on the platform, together with redesign of the actual TLPs have been successfully implemented.

### ***Design and development of assessments***

In analysing the context of modules for the language and academic skills development, it has become clear that the lexically dense nature of assessment briefs presents a real problem for international students. Examples of good practice such as use of splitting briefs into distinct sections, use of bullet points quite clearly helps the international student. However, there appears to be a distinctive vocabulary of written academic discourse in such briefs. The academic literacy specialist was able to draw this to the attention of the subject specialists and whilst there is no wish to address the overall standard of

**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

assessment briefs ongoing research is now looking at both the design and the consistency of language across assessment briefs and feedback mechanisms.

### **Podcasts/vodcasts**

Acknowledging the density, complexity and volume of written documentation the international student acquires over their period of academic study the research also informed the development of podcasts and vodcasts. During their first week of entry into most HE institutions students receive some form of induction and with this is either large amounts of printed, verbal or USB based material. The findings from the research informed the design and development of specific podcasts and vodcasts relating to the induction process which captured key information the student required but in a visual form to allow students to download and replay on an individual basis to help understanding and assimilation.

### **Teaching materials**

Emerging from the research has been the opportunity to develop innovative teaching and learning material directly related to the delivery of academic literacy and support the dissertation module. The resulting Dissertation Game Model (DGM) has the underlying philosophy of facilitating the mapping of content, assessment criteria and learning outcomes of a dissertation using a 'fun' example to contextualise the learning for the student (Sloan & Porter, 2008). The generic design is sufficiently flexible to be adapted in relation to the context used, variation in dissertation guidance and marking schemes, application to academic levels and to mixed sized groups. The DGM is divided into two sections. Section 1 presents the rationale,

**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

methodology and research findings underpinning the development of the DGM. Section 2 presents the context and structure of the DGM followed by the teaching and learning material with answers for student activities.

## Strategic Framework

Currently a limitation of the CEM Model is structural with the academic literacy tutor establishing specificity in conjunction with interested subject tutors. As this section will go on to propose, and reflecting the work emerging from the King's Warwick Project (2009), the future success of specificity will be dependent on the complete integration of both academic literacy tutors and programmes within teaching and learning processes.

Having established the CEM Model to support the operational delivery of academic literacy, and acknowledging the above statement the next stage was to develop a strategic framework which could be used to successfully transfer and consolidate the practice from these exemplars both within Newcastle Business School as a whole and for dissemination of the model to other Schools. It was also considered important to provide a strategic underpinning of the CEM Model, so that any future staffing changes would not impact negatively on academic literacy delivery.

The pivotal tangible area of policy refers to using recognised academic learning and teaching processes as vehicles for ensuring contextualisation, embedding and mapping. Table 5 illustrates the framework and its seven levels.

**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

*Level 1* recognises that the responsibility for resourcing academic literacy within Newcastle Business School lies with both the Head of the English Language Centre and the Associate Dean for the postgraduate area in Newcastle Business School.

At *Level 2*, the framework involves the academic literacy tutor as a member of the School's Learning and Teaching Committee. This is considered essential to ensure that at a strategic level the academic literacy tutor can feed back on teaching and learning issues from both a language and study skills perspective. The inclusion of the academic literacy tutor in the School's Teaching and Learning Committee ensures recognition of the model within Teaching and Learning Policy, combined with explicit references within documentation. Operationally the framework at this level allows for cooperation between the academic literacy tutor and the Newcastle Business School Programme Director for E-Learning.

At *Level 3*, the framework supports meetings between the Programme Director for Student Services and the Master's Dissertation and ensures that the academic literacy tutor is kept aware of any changes in the context of the Dissertation guidance teaching.

**Table 5: Newcastle Business School Strategic Framework for CEM Model Integration.**

| <b>Newcastle Business School Strategic Framework for CEM Model integration</b> |   |
|--|---|
| <b>Contact</b>   | <b>Context</b>  |
| Level 1: Head ELC & Ass. Dean  | Establishing staff resource   |
| Level 2: Academic literacy tutor and   | Strategic <ul style="list-style-type: none"><li>• Supporting T &amp; L policy</li></ul> |

**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

|  |   |
|--|---|
| Newcastle Business School Teaching & Learning Committee & Academic literacy tutor.<br><br>Programme Director for E-Learning  | <ul style="list-style-type: none"> <li>• Definition of Academic literacy role</li> <li>• Explicit in Newcastle Business School programme documentation</li> </ul> <p>Operational</p> <ul style="list-style-type: none"> <li>• BB sites</li> <li>• Podcasts, vodcasts</li> </ul>   |
| Level 3: Academic literacy Tutor & PD for Student Services & Masters Dissertation Co-ordinator)  | Operational detail  |
| Level 4: Academic literacy tutor & Programme Director team   | <p>Operational</p> <ul style="list-style-type: none"> <li>• Reporting 3 x semester inform, update and reviewing</li> </ul> <p>Strategic</p> <ul style="list-style-type: none"> <li>• Inclusivity</li> <li>• Contributing to development and design of programmes</li> </ul>   |
| Level 5: Academic literacy tutor & Programme. Leader team  | <p>Operational</p> <ul style="list-style-type: none"> <li>• Reporting 3 x semester inform, update and reviewing</li> </ul>  |
| Level 6: Academic literacy & Module Tutor/s  | <p>Strategic</p> <ul style="list-style-type: none"> <li>• Direct participation in module team meetings to inform and advise</li> </ul> <p>Operational</p> <ul style="list-style-type: none"> <li>• Shadowing staff</li> <li>• Access to Blackboard sites</li> <li>• Ongoing development of teaching and learning materials</li> </ul>   |
| <p>Level 7: Administration</p> <ul style="list-style-type: none"> <li>• Academic literacy administrator</li> <li>• Prog Committees</li> <li>• Student representatives</li> <li>• Module feedback quest.</li> </ul> | <p>Strategic</p> <ul style="list-style-type: none"> <li>• Senior administration support</li> <li>• Dedicated Academic literacy administrator</li> </ul> <p>Operational</p> <ul style="list-style-type: none"> <li>• Briefing of student representatives</li> <li>• Specific agenda item Programme Committees</li> <li>• Establishing specific Academic literacy module questionnaire feedback form</li> <li>• Schedule of meetings and reports for Academic literacy tutor</li> </ul> |

**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

*Level 4* allows for formal reports from the academic literacy tutor to Programme Directors to ensure that the experience of the academic literacy tutor can contribute to the development and design of programmes. Operationally the academic literacy tutor will become part of the annual review process reporting initial planning, updating and final review.

*Levels 5 and 6* relate to the intangible areas of team involvement and communication. Essentially, as identified with the CEM model, these elements are critical to ensure the policy is actioned and there is support for the establishment of key communication channels and developing team commitment and participation. At Level 5 and 6 of the framework the academic literacy tutor can participate in discussions with Programme Leaders and key Module tutors on programme and module review, as well as design and development meetings for new initiatives. Thus the academic literacy tutor will be informed of developments in modules that can impact on contextualised academic literacy teaching and learning materials.

*Level 7* is the role of the Administration where the research has shown strategically the need for support not just at an academic level but also via the administrative staff with the development of a designated academic literacy administrator. Operationally the model is supported through briefing of student representatives, a standard agenda item on programme committee meetings, specific module feedback questionnaire and finally a recognised schedule of feedback and reports from the academic literacy tutor.

## Summary and conclusions

To summarise, this guide presents the rationale and development of the CEM Model as a tool to support in-sessional academic literacy support running simultaneously with students programme of academic study. In the current climate of expanding the numbers of international students in the university sector we need to respond to the recognition of the challenges facing students of varying language and learning skills. The guide responds to the issues identified both within the literature and more importantly within the post graduate area of Newcastle Business School namely student attendance, engagement and subject specialist links with the academic literacy tutor.

Flowerdew and Peacock (2001) emphasise the motivational effect on students when the content of academic literacy is relevant to their learning goals. It would be beneficial if specificity was developed on a wider range of programme modules and the academic literacy tutor had the opportunity to collaborate with all the subject specialists on the programme.

The guide presents a critique of the approach to the design and delivery of an academic literacy support programme. The results identified the key areas of **C**ontextualisation, **E**MBEDding and **M**apping as emerging issues in providing quality of provision at an academic level, whilst ensuring participation and 'added value' for the student. From the associated definition and discussion on how to incorporate these into the academic experience the resulting CEM Model identified these three areas emerged as critical in the future planning and development of academic literacy support



**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

sessions. As the provisional findings have indicated the new approach is already demonstrating areas of improvement from both the student and staff experience. This can be evidenced:

- by the increased channels of communication between the subject and academic literacy specialists.
- this has led to a better and shared understanding of how they can work together to effectively link subject to language in order to promote increased learning opportunities for the students.
- the students now have a clearer understanding of the link between their language support programme and their subject specific modules.
- focusing on the language required, for example, to demonstrate analytical skills in the context of a specific module motivates the students to attend the academic literacy programme and increases attendance figures significantly.
- transferability of the CEM Model to support other added value activities.
- identification of key issues in areas of language used in assessment.

Quite clearly this early research has already demonstrated the importance of the CEM Model by linking subject content to academic literacy support. Through the methodology involving the student voice, the resulting model would benefit from wider participation

**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

of subject specialists with academic literacy tutors. This approach would corroborate the view of Pilcher (2006) who through student case studies recommended this as a key area of development. Further research is ongoing in the key areas of contextualisation, embedding and mapping and how the CEM Model can be used to support teaching and learning agenda i.e. assessment and its relevancy to other value added activities i.e. information literacy, numeracy and careers. The effort to embed the language support programme into the postgraduate programme area has met with considerable success. The academic literacy specialists are now perceived as part of the Business School academic team. Finally mapping the language support programme to students needs involves delivering the language support at the best time in the academic year to meet the needs of international students. Within Newcastle Business School a quantitative review of the data using a larger sample size is informing the relevancy of mapping delivery.

In order to ensure sustainability and transferability the CEM Model has been underpinned by the development of a learning and teaching strategic framework. The use of the framework takes the practicality of delivering the academic literacy programme and ensures the processes required to achieve this are an integral part of the teaching and learning agenda.

This paper therefore outlines the three key areas of contextualisation, embedding and mapping, the CEM Model, as critical in understanding and informing the delivery of academic literacy support to international students. As stated in the introduction whilst the material is based on postgraduate level the findings are also

**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

applicable and being implemented at undergraduate level. The results have already successfully informed current debate of postgraduate curriculum design in Newcastle Business School and are contributing to a critical area of educational development.

**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

**CEM 10 Point Checklist.**

**Check 1:** Identify a senior subject specialist/champion. Who will take responsibility for introduction of the CEM Model.

**Check 2:** Identify an academic literacy tutor who will be responsible for the management, design and delivery of the EAP support programme.

**Check 3:** Evaluate current academic provision in the target school and identify key areas of concern.

**Check 4:** Make a joint presentation of the CEM Model to Programme Directors and Programme Leaders as a solution to identified issues.

**Check 5:** Seek advice from Programme Directors and Programme Leaders on core modules for contextualisation.

**Check 6:** Meet with key subject specialists to assess core modules for contribution to the design of academic literacy teaching and learning materials.

**Check 7:** Present the teaching and learning plan of the academic seminars to Module Tutors, Programme Leaders and Programme Directors for review and consultation.

**Check 8:** Regularly provide reports on the academic literacy seminars to Programme Directors, Programme Leaders and Module Tutors, providing information on content and any student concerns.

**Check 9:** Both the subject specialist and the academic literacy specialist should respond to issues emerging from issues and subject specialist staff during the delivery of the model.

**Check 10:** Implement data collection techniques with staff and students to evaluate the application of the model.

*Check 5.1:*  
Assess the teaching and learning plan of the core modules for area which the academic literacy tutor could provide support.

*Check 5.2:*  
Revise the academic literacy teaching and learning plan to incorporate the key areas.

*Check 5.3:*  
Prepare teaching and learning materials in the context of the core modules.

## References

- Braine, G. (2002). 'Academic literacy and the nonnative speaker graduate student.' *Journal of English for Academic Purposes*, 1, pp59-68.
- Canseco, G. and Byrd, P. (1989). 'Writing required in graduate courses in business administration.' *TESOL Quarterly*, 23, pp305-316.
- Casaneve, C. and Hubbard, P. (1992). 'The writing assignments and writing problems of doctoral students: faculty perceptions, pedagogical issues, and needed research.' *English for Specific Purposes*, 11, pp33-49.
- Dong, Y. (1996). 'Learning how to use citations for knowledge transformation: non-native doctoral students' dissertation writing in science.' *Research in the Teaching of English*, 30, pp428-457.
- Dovey, T. (2006) 'What purpose, specifically?: Rethinking purposes and specificity in the context of the new vocationalism'. *English for specific purposes*, 25, 4, pp.387-402.
- Dudley-Evans, T. & St John, M. J. (1998) *Developments in ESP: A multi-disciplinary approach*. Cambridge, England: Cambridge University Press.
- Education Travel. (2005) International student increases in the UK. 4, 2005.
- Gill, J. & Johnson, P. (1991) *Research Methods for Managers*. Chapman.
- Gosden, H. (1996). 'Verbal reports of Japanese novices' research writing practices in English.' *Journal of Second Language Writing*, 5, pp109-128.

**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

UKCISA (2009) Higher Education Statistics. Available at: [http://www.ukcosa.org.uk/about/statistics\\_he.php](http://www.ukcosa.org.uk/about/statistics_he.php) (Accessed 26th June 2009)

Flowerdew, J. & Peacock, M. (2001) Issues in EAP: A preliminary perspective, in J. Flowerdew & M. Peacock (Eds.), *Research perspectives on English for academic purposes*, pp.8-24. Cambridge, England: Cambridge University Press.

Hyland, K. (2002) Specificity revisited: how far should we go now? *English for Specific Purposes*, 21, 4, pp.385-395.

Hyland, K. & Hamp-Lyons, L. (2002) 'EAP: issues and directions', *English for Academic Purposes*, 1, pp.1-12.

Murray, D. & McPherson, P. (2004) *Using the web to support language learning*. Sydney, Australia: National Centre for English Language Teaching and Research.

Sloan, D. E & Porter, E. (2008) *The Dissertation Game Model*. MARCET Staff Development Resource Centre, Red Guide, Paper 48. Northumbria University.

Snow, M. A. (1997) Teaching academic literacy skills: Discipline faculty take responsibility, in M. A. Snow & D. M. Brinton (Eds.), *The content-based classroom*. pp.290-304. White Plains, NY: Longman.

Spack, R. (1997) 'The acquisition of academic literacy in a second language: a longitudinal study.' *Written Communication*, 14, pp3-62.

Turner, Y. (2005) 'Students from mainland China and critical thinking in postgraduate Business and Management degrees: teasing out tensions of culture, style and substance.' *International Journal of Management Education*, 5, 1, pp. 3-10.

**The CEM Model: developing an operational model and strategic framework to support the in-sessional delivery of academic literacy to international students**

UKCOSA (2005) Higher Education Statistics. Available at: <http://ukcosa.org.uk/pages/hestats.html>. (Accessed 24 November, 2008.)

King's Warwick Project Academic Literacies Work Stream (2009).  
<http://www.kcl.ac.uk/content/1/c6/06/23/95/AcademicLiteraciesMinutes220909.pdf> (Accessed: 10<sup>th</sup> November, 2009.)