Towards Graduate Outcomes through the English curriculum: 'bridging the gap' between secondary and tertiary education

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Changing expectations of graduate outcomes

Graduate outcomes, and therefore expectations of new graduates, are constantly evolving and changing. Research informs us that it is no longer sufficient for graduates to acquire only course specific competencies, but that it is vital they can also “demonstrate high levels of literacy and critical thinking skills” in order to be competitive (Murchú & Muirhead, 2005).

It is therefore essential for today’s students to acquire and develop the skills which enable them to discover, comprehend, decode, question, apply and adapt information in a synergy of learning, critical thinking and application processes. In addition, as the availability of information increases, there is a parallel increase in the need for learners to adopt a truly independent approach to learning. Alongside understanding and applying ‘content’ material, students must also learn to transfer skills and conceptual understanding between disciplines, to read data accurately, and to make inferences about and recognize the implications of information they encounter in study, work and life.

Necessity of meta-skills

In a progressively more ‘global’ world, the field of developmental education (meta-skills for learning) is rapidly becoming central to learning throughout tertiary institutes worldwide. Meta skills, such as academic, study, decision analysis and critical thinking skills, are increasingly considered to be more important than content in pre-sessional tertiary education courses. The accepted rationale for this is that learners are unable to acquire course-specific competencies if they do not possess the requisite academic and study skills to do so. Research, such that by Harrison, supports this view and posits:

> The aim of any pre-sessional or foundation (or orientation) program should be to provide students with those skills (both language and study/learning skills) that they need in order to be effective students in their disciplines. (Harrison, 2007)

In addition, the current plethora of literature and conferences incorporating discussion of ‘the similarity of experiences encountered by educators of first-year students worldwide, despite the differences in educational climates and cultures’ (University of South Carolina, 2007), is a testimony to the importance of this field. The work of the Centre for Developmental Education at Appalachian State University, USA highlights that this same issue, while affecting many second language learners, is also prevalent among the majority of students transitioning between secondary and tertiary education:

> The field of developmental education supports the academic and personal growth of underprepared college students through teaching, counseling, advising, and tutoring. The clients of developmental education programs are
traditional and nontraditional students who have been assessed as needing to develop their skills in order to be successful in college. (Appalachian State University, 2007).

Growing employer expectations and evolving demands made on new undergraduates both increase the need to successfully and smoothly ‘bridge the gap’ between students’ former and current educational environments. This ‘bridge’ may include assistance in negotiating larger-scale physical surroundings, coping with the greater volume of instruction, starting to focus on a career, and dealing ‘independently’ with institutional administrative requirements. In addition to all such standard changes, the transition for many secondary graduates may also incorporate changes in the medium of instruction, the educational / academic culture, and the educational expectations of both the teacher and students, specifically with regard to graduate outcomes.

**Undergraduates using a second language (L2)**

Teaching meta-skills to new undergraduates is the responsibility of all tertiary establishments wanting to ultimately produce employable graduates. Studying through a non-native language adds a further dimension to the issue of addressing student needs. Orientation programs for incoming ESL, EFL or ESAL (English for Speakers of Another Language) students must simultaneously focus on developmental education, specifically meta-skills for learning, as well as language issues as few, if any, allowances are made for potential language deficiencies in L2 undergraduates. The implication for L2 learners, therefore, is that to be successful in tertiary education (and to be globally competitive), they must possess an advanced level of the study-medium language as well as an understanding of the academic ‘culture’ of study (e.g. active, experiential) and academic concepts as understood by that learning culture (e.g. conventions on plagiarism and referencing).

**Our situation**

The Higher Colleges of Technology (HCT), with a majority of ESL undergraduates, upholds the principle of producing employable graduates. The HCT Mission statement posits that students will graduate with:

the linguistic ability to function effectively in an international environment, the technical skills to operate in an increasingly complex technological world, the intellectual capacity to adapt to constant change, and the leadership potential to make the fullest possible contribution to the development of the community for the good of all its people (Higher Colleges of Technology, 2006 :7).

As early as 2000, the UAE Ministry of Youth and Education had the vision of meeting ‘new’ graduate outcomes. In its document ‘Vision 2020’, they proposed that an
outcome-orientated, skills-based, active, experiential learning environment which is already in place in higher educational establishments in the UAE, be implemented in the secondary education sector. More recently, during HCT’s 'Education Without Borders' conference in February 2007, HE Sheikh Nahyan, Minister of Education, stated that it is the teachers’ duty to provide students with the tools that will better equip graduates to meet the demands of the world, tools which need to be part of this new world of education and integrated into current educational programs (reported in Gulf News Feb 27th 2007). The need to offer a developmental education environment to students entering the tertiary sector is now imperative (HE Sheikh Nahayan Mubarak Al Nahayan, et al, 2007).

Current initiatives within the Higher Colleges of Technology promote a learning environment that produces graduates who can think creatively and independently. However, Sheikh Nahayan believes that there is still a 'gap' to be bridged, saying “there is so far little recognition of students' desire to be active participants rather than passive recipients in the process we call education", (Sheikh Nahayan Bin Mubarak Al Nahayan, reported in Gulf News February 27, 2007). This is clearly a challenge to students and educators alike to move the learning process forward and encourage a negotiated path of learning.

The objective, then, is to equip ESL students from the outset to meet the challenges of courses that utilize a learner-centered approach, to introduce and subsequently 'scaffold' non-content language and skills to enable students to survive, actively participate in and enjoy the first year at university, and thus to lay the foundations for successful graduation at the end of the program as modern graduates prepared for an international working environment.

This paper discusses the challenges of implementing an initiative piloted by the Foundations Department at Dubai Men's College to bridge the gap between the secondary and tertiary educational environments as experienced by incoming students. It reviews the two-week orientation program and the approach adopted for introducing the language and skills necessary for holistic learning at college and beyond. It exemplifies methods adopted by the department to introduce the requisite linguistic and conceptual building blocks identified by teachers as fundamental to producing successful learners. It highlights the successes and the areas for development and it outlines faculty and student feedback. Finally, it presents recommendations for future implementation of the orientation program.

**Incoming students at Dubai Men's College (DMC)**

In order to effectively lay the foundations for the acquisition of meta-language and meta-skills for learning, an analysis of students' previous educational background and experiences highlights the immediate learning needs. The majority of students entering the Foundations year at DMC have often:
experienced only Arabic as the language medium of instruction;
- not encountered academic concepts OR only engaged with them at a basic level; and
- not yet learned experientially.

While facing the initial challenge of using English as the primary study medium, students must simultaneously adapt to a student-centred teaching approach and adopt a self-directed learning style which requires them to take ownership of their own learning. A deficiency in the requisite English language skills necessary for the changes, coupled with poor study and analytical skills, often leads to continuing uncertainty, insecurity and confusion during the transition period.

Inevitably, students enter DMC with varying literacy levels in both L1 and the L2 which has over-arching implications for both teaching and learning in their first year. Students’ levels of literacy affect:
- their ability to grasp the practical details for learning (for example, location of classroom, equipment requirements, location of recreational facilities);
- their comprehension of the metalanguage required to understand and utilise higher order thinking and meta-cognitive skills to complete content-based or content-related tasks;
- their ability to transfer skills to a variety of problem solving contexts; and
- their awareness of the wider 'matrix' that constitutes holistic learning.

There is, consequently, often an inability among students to see:
- the validity of acquiring skills and subsequently transferring them to other areas of learning;
- that skills underpin the hierarchy of learning;
- skills, not content, as the building blocks of learning;
- learning as an ongoing, integrated process; and
- learning as a negotiated 'journey'.

**Foundations approach:**

**Identification of learning needs**

Recognition of students’ educational background and the implications for tertiary learning was the first step towards identifying key learning needs for the initial two weeks of study at DMC. Next, college and teacher requirements were considered. The three major stakeholder groups in the project, Foundations' teachers, administration staff, and students, were all interviewed. Comments from teachers across the disciplines showed that the majority considered the first two weeks of the new semester as 'wasted', claiming students were mainly confused. The following were identified as primary areas of concern:
- students lacked an overview of both 'orientation' and new program requirements. Teachers felt students underperformed due to not seeing the 'bigger picture/wider matrix' for learning at college early on;
students experienced technical and 'log in' problems with their new laptops (another type of transitional 'change'); and

- students did not know the rationale behind a number of the requirements they were expected to meet early on in their college careers.

The Orientation program needed to address the issues above to fully induct the students into a tertiary learning environment in as clear a manner as possible. Stress needed to be placed not only on the 'what' of learning, but also the 'why'.

**Training solution**

Having identified the learning needs, our role as educators is to provide training solutions, which directly address 'gaps' and areas of concern. Students entering tertiary education are often placed in orientation programs which are institution-driven, focussing on administrative requirements and attendance tracking. To meet the actual transitional needs of new students entering the Foundations program at DMC, this approach has proved inadequate. The challenge undertaken by the Foundations department was to design and implement a full two week student-centered program which, whilst meeting college administrative requirements, focused on teaching the skills needed by students to survive and enjoy their first year at college. The program needed to provide heavy 'scaffolding' of the generic and subject-specific educational metalanguage required by students to ensure they absorbed the key educational concepts of the program, as well as of the requisite academic and study skills necessary for a self-directed approach to learning. Overarching all of this was the need to ensure the students understood the reasons behind their actions, that is, the 'why'. When this understanding is achieved, active student participation in the learning process naturally follows.

On completion of the new two-week orientation program, all Foundations students would follow a forty-week blended learning course that is taught as a complement to language skills in Foundations at DMC. This course, called Research Skills and Projects (RS&P), was developed by Hazel Owen and is described in the article by Owen & Godfrey, this volume. Briefly, this forty-week course focuses on the skills needed to research, find and evaluate resources and information and investigate, question, interpret and present data. These skills are developed, recycled and refined throughout the Foundations year and students who progress to Higher Diploma level are noticeably more able and confident in utilizing the necessary study skills to complete course-specific tasks. As a colleague states:

"Students who have participated in the Foundations program are more familiar with college culture and fit in to their chosen program areas well. They show good team spirit and a willingness to work hard and develop their potential. (Kennedy, 2007)."

The RS&P course has proved effective in preparing the students for post Foundations learning. However, the gap in learning between the secondary and tertiary sectors still
needs to be addressed beforehand to empower new Foundations' students to understand, appreciate and utilize learning materials, particularly self-access materials, which will enable them to develop a consistent and effective study ethic and will facilitate a natural link into the RS&P course. To achieve a smoother link, the following issues were also considered 'key' to the design and implementation of the Orientation program:

- better utilization of the first two weeks of semester;
- help for the incoming students to prepare themselves to become successful Foundations' learners;
- presentation of the Foundations program in a holistic manner, to stress cross-discipline learning skills; and
- how to best equip students with the skills to become successful, independent learners.

The approach ultimately focussed on consistent recycling of study and academic skills across all the disciplines and including them as an integral part of the content area being concurrently addressed. This approach developed an awareness among students of learning as a holistic, interrelated, multi-dimensional learning grid, rather than as linear, unrelated, isolated units of learning. Students were encouraged to use the skills as 'building blocks' to build learning in all areas and both inside and outside the classroom (see Fig.1 below).

**Fig 1**

![Diagram](image)
HCT Graduate Outcomes and Classroom Goals

Core considerations of any course, program or curriculum design must be the curriculum criteria, institutional goals and graduate outcomes. At HCT, outcomes for each stage of learning are wide ranging and reflect the need to educate holistically. While not all graduate outcomes are applicable or relevant to the Foundation year, the majority are highly significant. It is important to introduce the graduate outcomes in a heavily ‘scaffolded’ environment and to explicitly introduce and recycle the skills needed to achieve them. To prepare for the orientation program, general study skills identified by faculty members as being of global importance for our incoming students were cross-referenced with the HCT graduate outcomes, as in Table 1 below:

<table>
<thead>
<tr>
<th>Graduate Outcome (GO) requirement</th>
<th>Orientation: Study Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locate information from a self-selected range of sources (GO 1)</td>
<td>5. Using course outline &amp; assessment plan for prioritizing your work</td>
</tr>
<tr>
<td>Organise &amp; communicate ideas, concepts &amp; information competently in English to carry out a range of social, work &amp; college related functions (GO 1)</td>
<td>11. Learning teacher expectations of students 13. Learning ways of communicating with teachers</td>
</tr>
<tr>
<td>Appraise the needs of an audience and respond effectively (GO 1)</td>
<td>16. Reading for learning &amp; reading instructions 17. Listening for learning &amp; listening to instructions 18. Asking questions for learning &amp; clarifying instructions</td>
</tr>
<tr>
<td>Act ethically in the use &amp; distribution of information (GO 1)</td>
<td>14. Using the Learning Centre 15. Using on-line materials for independent study</td>
</tr>
<tr>
<td>Identify &amp; address a self-selected, ill-defined problem &amp; generate possible solutions independently (GO 2)</td>
<td>1. Following Attendance policy 2. Time management for classes, homework &amp; assignments 3. Bringing the right equipment to class 4. Organising your work, resources &amp;</td>
</tr>
<tr>
<td>Apply concepts &amp; principles from one discipline to another (GO 2)</td>
<td></td>
</tr>
</tbody>
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Table 1 Matching selected requirements for HCT Graduate Outcomes and 20 Study Skills covered in the orientation program
| Evaluate the scope of the potential impact of IT in professional & personal lives & identify ways of adjusting to this potential (GO 4) | 15. Using on-line materials for independent study |
| Respond to challenges in an effective & socially mature way (GO 5) | 11. Learning teacher expectations of students |
| Evaluate own learning processes & identify needed improvements (GO 5) | 12. Learning what students can expect from teachers |
| Display a positive attitude & good habits in the workplace (GO 5) | 1. Following attendance policy |
| Act ethically when participating in a group (GO 6) | 6. Avoiding plagiarising, copying & cheating / Using Academic Honesty Statement |

- 5. Using course outline & assessment plan for prioritizing your work
- 6. Avoiding plagiarising, copying & cheating / Using Academic Honesty Statement
- 7. Making up missed work & classes
- 8. Following Homework policy
- 9. Following Late Assignment policy
- 10. Demonstrating good behaviour in classrooms
- 12. Learning what students can expect from teachers
- 14. Demonstrating good behaviour in classrooms
- 15. Using the Learning Centre
- 17. Using on-line materials for independent study
- Taking notes for learning
Explicit references to these twenty skills (see Table 1 above) were integral to creating materials for the orientation program. The range of skills encompassed thinking, doing, questioning and reflecting, as well as evaluating information and concepts. Recycling was vital if students were to take ownership of these skills and use them outside the classroom and independently of the teacher. In order to maintain consistency, not only throughout the two weeks but also throughout their studies at DMC, it was crucial that these core goals underpinned the initial content work introduced to new undergraduate students.

### Implementation of the DMC Foundations' Orientation Program

A full two week schedule was planned to introduce students to new educational, administrative and practical requirements progressively. The timeframe allowed other departments such as Sports, Careers, and the Learning and Technology Centres to play an active role in the orientation, thus maximising the potential for students to experience a holistic learning approach. Workshops were provided for practical administrative, technical and course-specific assistance so that students felt comfortable, empowered and ready to learn at the start of Week 3.

### Overview of Orientation

**Student binder:**
In order for students to be clear about the learning process, they need a clear overview from the outset. A single file / binder was therefore provided which encompassed all the information and materials necessary for the orientation program. The binder focused on the need for transparency of learning objectives, suggested processes and expected outcomes to students, as well as clear expectations of rationales. The binder ensured that nothing was 'hidden' from students from the very beginning of their tertiary experience. It empowered students to be more independent and, by using the binder as a checklist, to more actively identify problems and areas of confusion. Students said this alleviated the stress of having to remember which textbooks / materials to bring to class and teachers said classes were more productive as students had the correct/necessary materials for every class.

**Use of L1**
Bilingual support was offered for a variety of information, ranging from important educational terminology to information about college facilities and social events. Bilingual support was deemed necessary by both L1 Arabic and other staff as all agreed that students experiencing a huge change in their learning environment should not be additionally expected to absorb all the meta-language and survival instruction in the L2. Using L1 to communicate specific information reduced confusion and offered necessary 'scaffolding' within the new learning environment.
College 'Brother' Program
A College 'Brother' Program was offered in which students met previous Foundations students and had the opportunity to ask (in Arabic) about any matter which, for that individual, required clarification. Student feedback indicated that this support provided a safe environment in which to express concerns and offered a connection to the wider College community.

Timetable
The components of the timetable were explained using Arabic support (room, course, teacher and lesson time). In addition to the course-specific lessons, students were able to see included in their timetables the welcome, exam and sports days as well as 'workshops' for technical, administrative and content-based problems. Again, the focus was for a transparent, inclusive holistic approach.

Content
Students were not assigned a single teacher during Orientation. Rather, they were given exposure to a range of teachers who introduced the content subjects. The emphasis was on collaborative education and teamwork with students being shown that the Foundations department is a 'team' of which they are a part. Post-orientation feedback from faculty members indicated they had found that the students they taught, albeit briefly, were then not afraid to approach them, ask questions and generally interact, thus problems were solved more quickly and effectively. An unexpected follow-on effect was that the occasional cover lessons with a replacement teacher were more productive and effective since students were more willing to work for a teacher they had already met.

Template
A common lesson template was used for each lesson to promote the recycling of 'general skills' across all areas of learning to instigate a holistic approach. The template included the subject, lesson title, lesson timing, subject-specific content and list of related resources as well as the general skills to be used. This comprehensive record assisted students in correlating the necessary components for successful learning during a lesson and in understanding the 'why' of learning as well as the 'how'.

Feedback
Dual feedback, either written or verbal, was encouraged at the end of each lesson. Students were encouraged to give the teacher short, constructive feedback about the lessons to open channels of communication early while teachers were provided with an opportunity to identify any areas of concern and reinforce college expectations. Questions, designed to stimulate students' awareness of the learning process and to promote autonomous concept checking, were:

- What did you learn?
- What was most helpful?
- Do you have questions for the teacher?
Feedback from individual and group discussions with students and teachers provided the main impetus for the preparation of a recommendations document which outlined necessary improvements. Informal verbal and written feedback was gathered frequently throughout the academic year (usually anonymous), and feedback through a variety of channels was actively encouraged.

Findings and Implications

Student, teacher and administration responses all indicated that while practical and technical problems are frustrating, students were successfully introduced to and started learning how to use:

- problem solving skills;
- time management skills;
- evaluative and analytical skills;
- instructions;
- peer support;
- peer instruction;
- synchronous/asynchronous communication (an important element in the RS&P course);
- WebCT;
- the library / Learning Centre.

The feedback is being incorporated into the revised Orientation Program for students joining the Foundations Program in September 2007. Overall, feedback suggests that students are empowered early by the skills-based approach that the Orientation Program used, and that some student responsibility for their own learning is increased. In other words, students are introduced to skills and strategies which they then apply in any learning situation, and experiential learning is extensive. The focus of the program is therefore as much on the process as on the end product, with students discovering through experience what could have been transmitted verbally in class, though the latter approach is often not assimilated until students experience the consequences and results of their action or inaction.

Recommendations

A comprehensive recommendations document was prepared which highlighted the positive aspects of the program, identified areas for improvement and finally suggested the action points necessary for the recommendations to be implemented. For example, one 'positive' of the program was hours allocated for 'trouble shooting' the inevitable technical and 'log in' problems accompanying the use of laptops at DMC. However, these hours were neither timetabled nor compulsory and as a result, some students did not attend and teachers reported the difficulties of students who, by Week 3, could still not view on-line courses or use the HCT Portal. The feedback has led to the development of Readiness to Learn workshops. These have been designed to ensure
that students have undertaken, and understood, all the required steps to ensure the facilitation of their active participation in classes at the start of Week 3.

**Attrition Rates**

One goal of the department was to decrease attrition rates and prevent students from withdrawing due to uncertainty. This is a problem within tertiary education sphere worldwide and while there are insufficient studies to accurately determine the reasons, it is generally accepted that effort must be made to retain students. Our belief that if students felt a strong bond and sense of validation at the outset, the attrition rate would dramatically decrease was supported by anecdotal statistics; accurate feedback cannot be provided, however, since there were too many variables in the equation, for example the requirement to purchase a laptop may have caused some withdrawals. However, the fact remains that historically, the attrition rate is the lowest recorded to date at DMC.

**Conclusion**

A dedicated, focused approach to developmental education at tertiary level is essential. The aim of the Foundations program at DMC, therefore, is to provide students with the necessary language and study skills to ultimately empower them to be effective students in their chosen disciplines. Skills and strategies taught must generate learning among students, that is, they must equip students to learn independently. Multiple research articles have shown this view to be an accurate reflection of current approaches to education. Recent research also indicates that long-term, structured, skills-based programs have successfully empowered some tertiary students to consider learning as a lifelong process, in spite of a previous passive learning background prior to tertiary entry. By constructing a common framework for students, and using the necessary ‘scaffolding’ to place new information into this framework, students are empowered at the very beginning of their college life to be active, experiential, global partners in the learning process.

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Education Counts


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