

# 6

**APPLYING QUALITY MANAGEMENT  
PRACTICES TO CURRICULUM  
DESIGN**

***APLICACION DE PRÁCTICAS DE  
GERENCIA DE CALIDAD AL DISEÑO  
CURRICULAR***

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**ABSTRACT**

The paper reports on a survey conducted by the Department of English and Communication Studies in a community college in Trinidad and Tobago which led to a revision of the department's Developmental Education course offerings. The survey was conducted of full-time and part-time faculty members, who teach college-level courses, to identify their reading and writing requirements of students. Of the 259 surveys distributed 31 were completed. Despite this however, some picture of the reading and writing of college-level courses was provided. The qualitative and quantitative data generated suggested that lecturers of college-level courses require higher-order cognitive skills in the reading and writing tasks they assign students. They expect students to be highly intellectual self-regulated learners so that the reading and writing tasks they assign are considerable both in number and degree of sophistication. Although most of the reading and test activities have focussed on the traditional textbook and lectures, to a substantial degree reading activities are also of a non-traditional nature—notably web based reading, journal articles and the reading of newspapers and magazines. While most lecturers felt students handled the assigned writing tasks adequately, a considerable percentage of respondents felt that students do not handle writing assignments very well. Not surprisingly, lecturers felt that the reading and writing skills taught

should be relevant and transferable to courses outside of the developmental education classroom. The findings of the study have informed new drafts of learning outcomes for two Developmental Education courses offered by the department.

## RESUMEN

El documento trata sobre un sondeo de opinión conducido por el Departamento de Inglés y Estudios sobre la Comunicación de un Instituto de Enseñanza Superior en Trinidad y Tobago. Este estudio condujo a una revisión de los cursos sobre Educación para el Desarrollo que ofrece el departamento. El sondeo fue realizado a profesores universitarios a tiempo completo y por horas, con el objeto de identificar los requerimientos de lectura y escritura que se espera de los estudiantes. Aunque de los 259 cuestionarios distribuidos, sólo 31 fueron respondidos, se logró cierto panorama con respecto a la lectura y la escritura en los cursos universitarios. Los datos cualitativos y cuantitativos generados sugirieron que los profesores esperan habilidades cognitivas de un nivel superior para las tareas de lectura y escritura que asignan a sus estudiantes. Ellos esperan que los estudiantes sean individuos de alto nivel intelectual y que se regulen a sí mismos. Por esta razón, las tareas de lectura y de escritura que asignan son considerables, no sólo en número sino también en cuanto al grado de sofisticación que demandan. Aunque las actividades de lectura y los exámenes, en su mayoría, tienen como foco los libros de texto tradicionales y las conferencias dictadas, también tienen que ver, en gran medida, con fuentes no tradicionales de lectura de artículos de diarios, periódicos y revistas publicados principalmente en la Internet. Aunque la mayoría de los conferencistas expresaron

sentir que los estudiantes manejan sus tareas de escritura adecuadamente, un considerable porcentaje de los participantes en la encuesta sentían que sus alumnos no manejan la escritura muy bien. No es de sorprender que los conferencistas sintieran la relevancia de la enseñanza de la lectura y la escritura y que ésta debiera ser llevada a otros cursos además de los de Educación para el Desarrollo. Los resultados del estudio han llevado a nuevos bosquejos en cuanto a lo que se espera en dos de los cursos de Educación para el Desarrollo ofrecidos por el departamento.



## BACKGROUND

As a run up to The World Conference on Higher Education (Paris, 5-9 October 1998), the Regional Conference of UNESCO on *Policies and Strategies for the Transformation of Higher Education in Latin America and the Caribbean* was held in Havana, Cuba from the 18<sup>th</sup> to 22<sup>nd</sup> November, 1996. The outcome of this conference was the "Declaration about Higher Education in Latin America and the Caribbean" which, among other things, ratified article 26, paragraph 1 of the Universal Declaration of Human Rights that "every person has the right to education" and that "the access to higher education studies will be equal for all, on the basis of their corresponding merits". It also acknowledged the "special stage in history, characterised by the emergence of a new production paradigm based on the power of knowledge and the adequate handling of information" and the necessity to train "a highly skilled staff" to ensure the requisite economic and social development. The participants at this conference declared that "higher education is an unavoidable element for social development, production, economic growth, strengthening cultural identity, maintaining social coherence, continuing the struggle against poverty and the promotion of the culture of peace." (p.4)

In answer to the regional and subsequent world UNESCO conferences, and consistent with the Millenium Development Goals (MDGs) of the UN Millenium Declaration of September, 2000, Trinidad and Tobago launched its Vision 2020. This was also accompanied by an effort to enhance its competitiveness and to cope with the challenges of globalisation and trade liberalisation through becoming a knowledge-based economy. This primarily means social and economic transformation to achieve developed country status by the year 2020. At the core of this transformation is human development, and education is seen as one of the dimensions of human development that would assist in reducing poverty, generating sustainable employment opportunities and creating a harmonious society. This can be seen in the Government of the Republic of Trinidad and Tobago's (GORTT) vision statement which proposes inter alia that "all citizens are assured of a sound, relevant education system tailored to meet the needs of a modern, progressive technologically advancing nation" (Office of the Prime Minister of Trinidad and Tobago, 2007 p. 1).

By 2000, just over 6% of the labour force in Trinidad and Tobago had tertiary education. This reality, combined with the thrust towards human development coming on the heels of the World Conference on Higher Education (1998), led to the view that increased access to tertiary education is critical to social and economic development. It is in this context therefore that the College of Science Technology and Applied Arts of Trinidad and Tobago (COSTAATT) was set up by Act of Parliament in 2000. It is a community college which offers two- and three-year degrees and certificate programmes and it is the first of its kind in Trinidad and Tobago. By the aca-

demographic year 2006-2007 it already boasted an enrolment of 5,000 part- and full-time students of diverse profiles (see Table 1).

TABLE 1: ACADEMIC PROFILES OF APPLICANTS TO COSTAATT

1	Five O-levels but with deficiencies in Math, English, Science or Computer Literacy
2	No secondary education; mature, employed and experienced
3	High school dropout/ no secondary school education
4	Completed secondary education but incomplete certification
5	Five O-levels but no prerequisites for the career to be pursued
6	Five O-levels obtained more than a decade ago. Re-entering tertiary level to update skills

The College in its mission statement aims "(t)o be the premier educational institution in providing, high quality, affordable and accessible educational programmes, serving the needs of business, industry and its diverse campus communities..." (Faculty Orientation 2007). Its vision is to "be a dynamic, innovative and student-centred multi-campus college, promoting excellence in teaching and learning, serving diverse communities and producing lifelong learners who can compete globally" (Faculty Orientation 2007). The goals of the College are as follows:

- to increase the number of citizens participating in tertiary level education and training
- to broaden access to tertiary level education and training through an open admissions policy and the development of multiple delivery modes including distance education
- to design and deliver customized programmes to cater for the specific needs of different sectors of the economy
- to collaborate with business and industry in the development and delivery of programmes which are relevant to current and future labour market needs
- to ensure a quality educational experience by constantly reviewing and improving services offered to students in terms of student guidance, learning resources and facilities in general
- to raise the level of graduate competency by assisting students in developing the professional and interpersonal skills necessary to succeed in the workplace.

(FACULTY ORIENTATION 2007)

Further to increasing access to tertiary education, by 2004, a Green Paper on Tertiary Education, Training, Distance and Lifelong Learning made major recommendations to reform, restructure and govern the tertiary education system so as to establish a Seamless Education and Training System (SETS). SETS proposes the creation of an integrated education system that facilitates the smooth transition for students from the primary to tertiary levels. The tertiary education climate was further affected when in 2006 free tertiary education was introduced through the Government Assistance for Tuition Expenses (GATE) programme which makes provisions for all tuition fees of nationals enrolled in higher education to be paid up to the first degree and 50% for post-graduate degrees.

Since its establishment in 2000, enrolment of students at COSTAATT has increased steadily over the years from 2001 to 2007. Table 2 provides a picture of enrolment statistics.

TABLE 2: ENROLMENT AT COSTAATT

Year	No. of students in COSTAATT
2000-1	0
2001-2	108
2002-3	2545
2003-4	2932
2004-5	3401
2005-6	4403
2006-7	5532
September 07-08	4944

With the increases in student enrolment have come concomitant increases in the numbers of under-prepared students; so that the numbers of students who have failed the College's placement tests in English and Mathematics and have had to be enrolled in the College's developmental English and Mathematics courses have also increased (Table 3).

TABLE 3: STUDENT ENROLMENT IN DEVELOPMENTAL ENGLISH AND MATHEMATICS COURSES

Year	No. of students COMM001	No. of students MATH 090	No. of students MATH 095	No. of students MATH 096	No. of students MATH 097	No. of students MATH 098
2000-1	0	0	0	0	0	0
2001-2	0	0	6	0	0	0
2002-3	113	16	145	0	0	0
2003-4	92	202	407	0	0	0
2004-5	139	396	478	0	0	0
2005-6	299	658	855	0	0	0
2006-7	1171	1132	1420	0	0	0
2007-8	340	0	0	666	564	62

The dramatic increases in the numbers of students failing the College's placement tests in English and Mathematics and having to be enrolled in the College's developmental English and Mathematics courses led the College in 2007 to investigate first-hand the approaches used by other international colleges to cater to under-prepared students. As a consequence seven members of faculty attended a conference on developmental education held by the National Association for Developmental Education in Nashville Tennessee from March 21, to March 24, 2007. Members returned to the College determined to re-examine and revitalise their approaches to "scaffolding" the under-prepared student to the college experience. It is within this context therefore that the Department of English and Communication Studies sought to improve its developmental education offerings to the rest of the College.

The courses *Introduction to Communication I*: COMM 001 (soon to be called Developmental Writing) currently being offered and *Developmental Reading* (COMM 002) soon to be offered, are within the Department of English and Communication Studies. Entitled 'Introduction to Communication I: COMM 001', our developmental writing course is a one-semester non-credit course. Passing the course permits students to enrol in Communication I: Fundamentals of Writing (COMM 107). Students are placed in this course as well as in Communication I: Fundamentals of Writing (COMM 107) based on the test scores of a college created placement test.

### THE PROBLEM

The dramatic increase in the numbers of under-prepared students entering COSTAATT has propelled the College to investigate established approaches to ease these students' transition to tertiary level education. In

addition, so far, there has been no in-depth investigation into the reading and writing requirements of COSTAATT so as to make curricular decisions. This lack of research on the reading and writing requirements at COSTAATT limits the extent to which curricular decisions could be made to cater to the educational needs of under-prepared students who enter tertiary education. There is therefore a need to explore the following: the types of reading and writing tasks assigned by lecturers to students of the College; the extent to which these students are able to accomplish these tasks and lecturers' expectations and assumptions of students' abilities to accomplish those tasks.

### **RESEARCH QUESTIONS**

The following research questions were investigated by this study.

- What reading expectations do lecturers have of students?
- What writing expectations do lecturers have of students?

### **SIGNIFICANCE OF THE STUDY**

It is hoped that the study will add to the general body of knowledge on tertiary education in Trinidad and Tobago and inform educational practitioners' attempts at curriculum redesign and change.

## **LITERATURE REVIEW**

### **WHAT IS DEVELOPMENTAL EDUCATION?**

Developmental Education is that blend of courses offered at the tertiary level in order to help under-prepared students to cope with college level work and facilitate their successful completion of a degree. It is often characterised by interventions in the form of tutoring programs, special academic advising and counselling programmes, learning laboratories, and comprehensive learning centres. In addition, there is the inclusion of non-credit bearing developmental courses in Mathematics and English that may extend the time of students' degrees (Boylan, H., 1999). Developmental Education is also based on the Vygotskian principle of scaffolding students from the level they are at to the level they should be. It is therefore grounded in sound pedagogical practice.

In most colleges, developmental education focuses mainly on remediating skill deficiencies in mathematics, reading and writing. Mandatory testing of students before they enter college usually is conducted so as to determine their readiness for tertiary level work. A 2004 study conducted by the National Centre for Developmental Education (NCDE) revealed that testing of students entering community colleges in the US was mainly done through the American College Testing's (ACT) COMPASS or the Educational Testing Service's ACCUPLACER. Some 21% of the community col-

leges studied developed and used their own assessment instruments (Gerraghty, K, Thompson, L., Boylan, H. & Davis, H., 2007). At COSTAATT the placement test that is administered to in-coming students has been developed by faculty of the College.

#### **DEFINITION OF READING**

"Reading is thinking guided by print ... or the skill of transforming printed words into spoken words" (Perfetti, 1986 p. 18). It is interactive (Cooper, 1997) and consists of overlapping processes (Perfetti, 1986). It is not a natural act (Fitzsimmons, 1998; Lyon, 1998; Shaywitz & Shaywitz, 2001) but must be taught (Asselin, 2001; Cooper, 1997; Foorman & Torgesen, 2001; Joseph, 2002; Lyon, 1998; Mills, 1970; Moats, 2001; Perfetti, 1986; Rayner, Foorman, Perfetti, Pesetsky & Seidenberg, 2002; Shaywitz & Shaywitz, 2001). It is not merely a collection of skills but is related to prior learning, meaning and context (Cooper, 1997; Friere, 1991; Goodman, 1991; Rosenblatt, 1991) and its acquisition is inextricably linked with culture – ethnicity, social class and primary language (Au & Mason, 1981; Au & Raphael, 2000; Craig, 1999, 2001; Delgado-Gaitan, 1990; Delpit, 1986; Nagle, 1999).

It is also established that like reading, writing is an active construction of meaning. In addition reading and writing are both processes that are interactive and symbiotic (Loban, 1963;) so that problems with writing start with problems with reading (Alves, 2007). They are both used to conceptualise and communicate thoughts and meaning (Langer, 1986).

#### **COLLEGE READING AND WRITING AND CRITICAL THINKING**

Critical reading and critical writing are fundamental to functioning at the tertiary level and involve critical thinking. Students need to develop the ability to summarise large volumes of complex texts while at the same time thinking critically about and questioning those texts. These complex texts often contain multiple layers of meaning that are not immediately apparent upon a single superficial reading and so require sophisticated reading comprehension skills and strategies (2006 ACT Inc). This implies the ability to evaluate texts, accepting or rejecting the information gathered in terms of its relevance to identified purposes. Critical literacy therefore involves an awareness of the social and political implications of written communication. Students must not only decode texts in a dictionary sense but must draw inferences, make predictions, summarise, and synthesize various versions of the same concept (Swanson, C., 2004). College-level writing requires that the writer begins with "an intellectually well-defined task" (Elder & Paul, 2006 p. 39). Such writing must be logical, unbiased, precise, informed and relevant rather than focussed on rhetorical style and flourish.

### HOME ENVIRONMENT AND READING

Literacy practices in the home have an impact on children's reading success or failure. The parents who read provide models for their children to follow. Moreover home literacy practices – making inferences, predicting and making judgements about text – enable children to construct meaning on a variety of levels (Roser & Martinez, 1985; Teale, 1981). Children who have stimulating literacy experiences, such as lap reading, before entering formal schooling, have improved vocabulary growth and develop an awareness of print and literacy concepts (Hiebert, 1981; Lyon, 1998; Mullis, 1995; Ninio, 1983). Family rules about TV watching can often lead to children's reading for entertainment (Guthrie, Schafer, Wang & Afflerbach, 1995) with the possible "Matthew effect"—cumulative growth in vocabulary development, reading ability and attitude to reading (Cunningham & Stanovich, 2003).

Moreover there is a correlation between low reading achievement and SES (Capella & Weinstein, 2001; Davidson & Koppenhaver, 1993; Jimerson, Egeland & Teo, 1999). The general perception is that the poor student is not exposed to as many books and parental modelling of positive behaviours as in the middle class home environment (Teale, 1981); that in the low SES home environments if reading is practised at all it may be for strictly utilitarian purposes—reading the Bible or the newspapers. These home literacy practices may not be congruent with success in the school and may be different from those to which children are exposed in middle class homes (Deosaran, 1988; Nagle, 1999; Alves, 2007). Conversely, however, studies imply that middle class students show more reading readiness and a greater adaptability to the school environment than students of low SES. Capella & Weinstein (2001) suggest that poor students are less likely to be academically resilient by 12<sup>th</sup> grade because of a lower internal locus of control, lower educational aspirations and exposure to a less challenging high school curriculum. Such students are therefore more likely to fail college entrance tests (Alves, 2007).

Poor students are especially dependent on the school, and by extension the college, to provide them with literacy promoting activities since these are not readily available in their homes (Craig, 1999; Lee & Croninger, 1994; Alves, 2007). The child who enters school without pre-school reading advantage is quite likely to experience disadvantage cumulatively which may plague him to the tertiary level. In order for him to cope with the literacy requirements at the tertiary level, then, the student will have to be scaffolded into college-level literacy practices.

### VIYGOTSKY'S 'ZONE OF PROXIMAL DEVELOPMENT'

The scaffolding of the college experience is in keeping with Vygotsky's theoretical approach which sees intellectual skills as growing out of social interactions in the accomplishment of tasks. "Learning on the inter-

psychological plane often involves mentoring provided by more culturally knowledgeable persons, usually elders, who engage in activity with less experienced or knowledgeable persons” (Lee & Smargorinsky, 2000, p. 2). The metaphor, ‘scaffolding’ (Lee & Smargorinsky, 2000, citing Bruner, 1975) has been used to describe the process of supportive guidance that is adjusted to the learner’s progress, providing the necessary help for mastery while encouraging the child’s assumption of greater responsibility as his/her ability increases.

Developmental education, according to the Vygotskian perspective therefore, provides support for the struggling student through tutoring programmes, special academic advising and counselling programs, learning laboratories, and comprehensive learning centres. As the student gains more proficiency, this support is gradually reduced. The distance between where the student is and should be is called the zone of proximal development.

### **TRINIDAD CREOLE AND READING ABILITY**

The vernacular in Trinidad and Tobago, although different from Standard English, shares enough of a vocabulary base with it to influence the student into thinking that he knows the standard when in fact he does not. This can impede students’ comprehension of text. Craig (1999) posits one approach that seems akin to the UK position in the Bullock Report—*A language for life*—in the 1970s. Craig’s approach to fostering literacy recognises the validity of the Creole. He suggests, however, that the teacher’s role is to provide models of language use appropriate to particular purposes and contexts. This should be done using a wide variety of teaching techniques involving class discussions, group projects, and various types of mediated learning (Boylan and Saxon, 1999). In this approach, the College is seen as the place where students are inducted into the use of Standard English and taught skills – time management, how to read effectively, note-taking and test-taking. This approach also recognises that students bring with them language capabilities that must be built upon if induction into the standard language—a passport to educational and economic success—and international communication is to be facilitated.

### **READING ACHIEVEMENT, SELF-CONCEPT AS A READER AND ATTITUDE TO READING**

While it is generally accepted that reading problems should be diagnosed and remediated early in the student’s life, it is also a fact that a number of students never had the benefit of this early intervention. Having reached the tertiary level, the student with low reading achievement will have experienced reading difficulty all his life (Capella & Weinstein, 2001; Juel, 1988; Lerner, 1997; Sousa, 2001) and will be unprepared for the increased demands of the curriculum—the higher order learning activities that are encountered

at the tertiary level of schooling in the process of making meaning in text. He would be disempowered—barred from fully and beneficially participating in the “Secondary Discourses” (Gee, 1990 cited by Lankshear, 1994) of college. Secondary Discourse is that use of language which is needed to function in secondary institutions (institutions beyond the home as primary socializing unit—for example, the college). According to James Gee (Lankshear, 1994), mastery of language uses within Secondary Discourses is literacy which empowers. This is so whether empowerment is defined as access to the acquisition of social goods (money, power, status) (Gee, 2000) or becoming socially and politically conscious about one’s position in society and being spurred to working for equity (Delgado-Gaitan, 1990; Friere, 1984; 1991).

With respect to Piaget’s theory of cognitive development (Woolfolk, 2001), a student lacking literacy skills would have suffered a maturational lag. Inadequate reading skills limit exposure to the information that would give the requisite prior knowledge to allow for assimilation and, consequent accommodation of the new knowledge of college level work in the student’s schema (Stanovich, 1991; Valtin, & Naegele, 2001; Brown, 1994). Moreover, now that the student can think in terms of past, present and future (Woolfolk, 2001), he can envisage how his inadequate literacy skills may impact his life in the future.

#### **MOTIVATIONAL THEORY**

Self-efficacy theory: Self-efficacy is content-specific—that is, a person may be competent in one area of endeavour and not another. Perceived self-efficacy is people’s beliefs about their capabilities. Sewell and St. George (2000) identify four sources of beliefs about our efficacy: past mastery or failure experiences, vicarious experiences through social models, social or ‘self-persuasion’ of capability and one’s physiological and emotional stress reactions. Self-efficacy beliefs determine how people feel, think, motivate themselves and behave. People who doubt their capabilities shy away from tasks they perceive as difficult (Bandura, 1994).

Research findings suggest the range of perceptions of self-efficacy on learning and motivation. Highly efficacious students will spend more effort on challenging learning tasks (Zimmerman & Martinez-Pons, 1990) and the efficacious reader has multiple purposes for reading (Greaney & Neuman, 1990). Sewell and St. George (2000) have summarised the cognitive, metacognitive and motivational processes seen in highly efficacious students. According to them, such students:

- choose to participate in their learning
- expend more effort in their learning
- seek more challenging learning experiences

- persist longer when faced with difficulty
- cope serenely in the face of adversity
- recover from failure more quickly
- are more motivated to learn
- achieve higher goals in learning
- use a variety of learning strategies
- quickly discard a faulty strategy
- attribute success to ability and strategic effort
- attribute failure to inappropriate strategy use (p. 60).

The student with low reading ability shies away from reading because it is a slow, painful task with the result that he is involved in a cycle of frustration with further deleterious effects on his self-efficacy—he cannot read well so he does not like to read; he gains insufficient reading experience and so is unfamiliar ‘with the vocabulary, sentence structure, text organization, and concepts of academic “book” language’ (Moats, 2001). Since the language of academia may pose a challenge to the student with poor literacy this may further increase his feeling of inadequacy (Field & Boesser, 2002).

#### **COLLEGE LEVEL READING AND WRITING**

Learning, studying, reading, writing are complex processes, interactive processes. They depend on the text and the task so that all students, especially students in developmental classes, need to engage in strategic learning in order to be successful at college (Stahl, N.A. 2006). In engaging in strategic learning, students must determine the courses they are taking, the texts they are reading what is expected of them by lecturers and how to study. In short, students need to be active, self-regulated learners to be successful at the tertiary level.

#### **DEVELOPMENTAL EDUCATORS**

Lecturers in developmental education programmes must inform their practice by the latest research in the area. Beyond teaching students the basics of reading and writing, they must teach students to be strategic learners who are able to transfer strategies learnt in the developmental classroom to real college-level tasks outside the classroom. In the classroom lecturers should select activities from real college-level books from the content class and have students transfer skills learnt in the developmental class to their content class.

There is a connection between the skills of reading and writing at all levels of education. Seen in the context of communication theory, reading is decoding thought and writing is encoding thought. College level reading and writing require sophisticated interfacing with

texts but this required level of proficiency is not always evident among all applicants desiring tertiary level education. This has grown abundantly clear in the current drive in Trinidad and Tobago to open access to higher education and the consequent development of a knowledge-based economy. The purpose of any course in reading and writing at the college level is to remediate students' ability to encode and decode thought. The instructor's role, therefore, is to reduce if not eliminate the noise that would stymie students' communication in the academic context by instructing students in strategies of critical reading and writing, vocabulary development, study skills and the usage of grammar and mechanics of the language. These strategies must be taught using the materials that students encounter in their college-level courses. Moreover, underpinning all activities must be an awareness of affect—students' beliefs about studying, reading, learning and writing. Students must be educated to value mastery of reading and writing skills in the college setting and ultimately become self-regulated learners. Finally, any effort to remediate students' reading and writing proficiency must be informed by careful assessment of their needs and application of current research in addressing them.

#### *PROJECT SCOPE*

The Department of English and Communication Studies decided to create, administer and evaluate a survey to acquire adequate information about actual college reading and writing requirements so as to re-evaluate and design/re-design its developmental course offering.

Several goals were established for the project:

1. to give faculty teaching college level courses the opportunity to say what are the actual reading and writing demands in their classroom using a faculty survey;
2. to analyse the results of the faculty survey;
3. to meet with faculty teaching the developmental Communication course to discuss its objectives and compare with the results of the survey;
4. to predict resource demands that may be necessary to prepare developmental students to satisfy the college reading and writing requirements; and
5. to design/re-design the developmental course offering of the Department of English and Communication Studies.

*PROJECT LIMITATIONS*

The primary instrument of data collection was a survey and, as with all surveys, it was limited by the willingness of faculty members to respond. Another limitation was the extent to which the survey questions were clearly worded to elicit the responses needed to provide a clear picture of the reading and writing requirement of the college level courses.

*PROJECT TIME*

The time of the project spans from September, 2007 to May, 2008 Methodology

Although there is no panacea in improvement approaches in management practice, it is however important that the right methodology, tools and change vehicle be used for the problem.

One of the process change methodologies related to Six Sigma – define, measure, analyze, design, validate (DMADV) – has been recommended as the best for designing or re-designing a new process or service (Harvey 2004). In this approach the needs and wants of the customer are researched. These needs and wants are measured and the measurements used to determine the nature of the new service.

Translated to the current situation, DMADV would involve, first, identification of the best way to investigate the reading and writing needs at COSTAATT. This was done by first a brainstorming of ideas by members of the Department of English and Communication Studies. A number of ideas were generated by the brainstorming session which necessitated selection of the most workable ideas. As a result, it was decided that administration of a survey of faculty would be the most feasible method. This then led to another brainstorming session to decide on the questions to be included in the survey

A summary table below relates DMADV to improving the development offerings of the Department of English and Communication Studies to the College:

*TABLE 4: DMADV*

Define	Research: define objectives; survey construction; deciding on items to be included in faculty survey
Measure	Pilot of faculty survey
Analyze	Assessing the results of the pilot to determine suitability; analysing the survey to determine the reading and writing needs of the College.
Design	Re-designing the survey; designing the courses.
Validate	Administering the survey; implementing the new courses.

## SURVEY

In addition to the brainstorming session with faculty of the Department of English and Communication Studies, the inclusion of other survey questions was informed by this researcher's twenty-six (26) years' experience as a teacher of English and training as a teacher of reading. In addition, survey items were found from a similar study conducted by Colarusso, 2000.

The survey was chosen because it was felt that it would give the largest possible amount of data in the shortest possible time. It was also felt that since faculty could be accessed via the Internet soft copies could be e-mailed to members of faculty and additionally, hard copies distributed.

A pilot of the faculty survey to determine ease of answering revealed that further changes were necessary in formatting as well as in precision of items. It was determined that since not all members of faculty were teachers of reading, the reading jargon should be simplified and thereby made clearer to those who did not teach reading. It was also felt that, since the survey would be e-mailed, item one (1) should be made optional so as to be less intimidating to participants.

After its revision, the survey was completed by faculty members. Of the 259 surveys that were distributed via e-mail as well as hard copy, 31 were returned. The total response rate is therefore .11 according to the formula as outlined by Neumann, 2000 (cited by Saunders, Lewis & Thornhill, 2003). The completed surveys were analysed with the use of SPSS edition 10 software. Table 5 below details the breakdown of completed surveys by department.

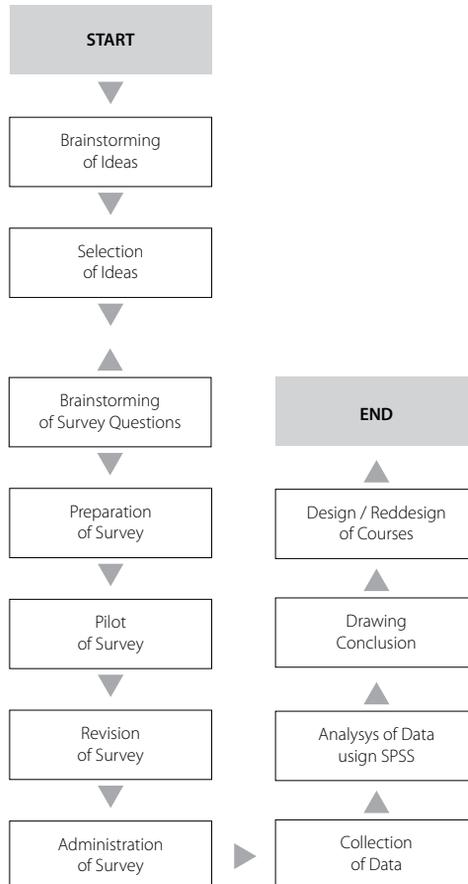
TABLE 5: CHECK SHEET OF COMPLETED SURVEYS BY DEPARTMENT

Department	Completed Surveys
Business Studies (BUS)	√√√
English and Communication Studies (COMM)	√√√√√√√
Environmental Studies (ENV)	√√
Health Sciences (HEALTH)	√√√
Information Technology (IT)	√
Library Science and Information Studies (LIBS)	√
Mathematics (MATH)	√√√
Natural and Life Sciences (NAT SCI)	√√
Nursing (NURS)	√

Department	Completed Surveys
Behavioural Sciences (PSYCH)	√√
Performing Arts: Music (PERF)	√√
Radiological Sciences (RAD SCI)	√
Social Sciences (SOC)	√√√
Total	31

The process of determining the reading and writing needs at COSTAATT could be illustrated by the flow chart in figure 1 below.

FIGURE 1: FLOW CHART  
THE PROCESS OF DETERMINING READING AND WRITING  
NEEDS



## FINDINGS

The two research questions (“What reading expectations do lecturers have of students?” and “What writing expectations do lecturers have of students?”) were operationalised primarily through the administration of a faculty survey that produced both quantitative and qualitative data. The items on the faculty survey were semi-structured allowing for the elicitation of lecturers’ reading and writing requirements of students. Analysis of the survey results was facilitated by the use of software SPSS edition 10. Consideration of the results of the survey must however be mitigated by the fact that 31 of the 259 surveys distributed were completed. Despite that fact though, those surveys that were completed did give valuable data on the reading and writing requirements of college level courses. The readings assigned to students varied in length and type. Tables 6 to 8 below provide a picture of the variety and lengths of readings required of students.

TABLE 6: TYPES OF READING ASSIGNMENTS

TYPE OF READING ASSIGNMENT	PERCENTAGE OF RESPONSES
Textbook assignments	74%
Lecture notes	68%
Newspaper or magazine articles	35%
Journal Articles	29%
Laboratory manuals	23%
Online texts	26%
Short stories	3%
Anthology	3%
Novels or plays	3%
Graphics (maps, graphs, charts, etc.)	23%

TABLE 7: AMOUNT OF READING ASSIGNED TO STUDENTS PER TRIMESTER

NUMBER OF PAGES OF READING	PERCENTAGE OF RESPONSES
800+	6%
600-800	16%
400-600	38%
0-200	32%

TABLE 8: LECTURER'S EVALUATION  
OF STUDENTS' READING COMPETENCE

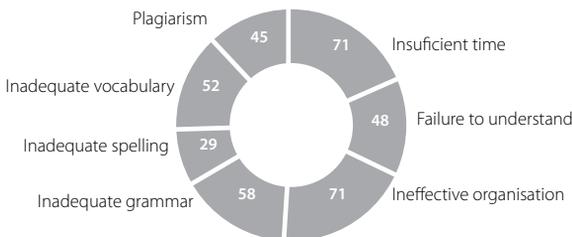
Students' Reading Competence	PERCENTAGE OF RESPONSES
Students read very well	6%
Students read adequately	71%
Students do not read well	8%

Lecturers generally evaluated students as reading adequately (71% of responses) and mainly required that students read their textbooks and lecture notes (74% and 68% respectively). To a lesser degree, lecturers also assigned laboratory manuals, online texts, graphics and articles in newspapers, magazines and journals. Few lecturers assigned readings in novels or plays, short stories and anthologies. The length of these readings mainly ranged from 400 to 600 pages.

Instructors revealed the use of a variety of test/evaluation formats with a high percentage of material requiring higher level thinking skills: 74% used problem solving and oral presentation respectively, 71% essays and group work respectively, 81% short answer and 52% multiple choice. There was also 42% use of true-false, 29% use of fill in the blanks, 23% use of laboratory manuals and 19% matching. Also 94% of lecturers say their test questions come from their text and lectures.

Information about writing assignments was also revealing. Of the respondents, 61% required in-class papers, 58% reports and 55% required research papers. When asked about the length of these papers, 65% of respondents said 1-4 pages, 42% said 5-10 pages, 19% said 11-15 pages and 6% said 16-20 pages. Three percent of respondents required students to write 30-40 pages and 41-50 pages respectively. In answer to the question about how well they thought students handled writing assignments, 68% of lecturers responded "adequately", 26% responded "not well" and 6% responded "very well".

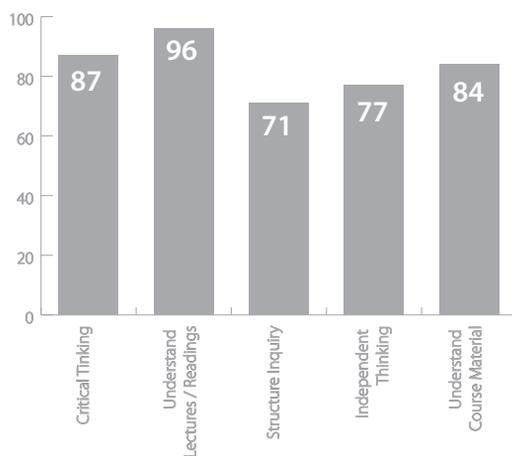
The ranking of reasons why students had difficulty with writing assignments also revealed an interesting picture (see Figure 2). Figure 2: Difficulties with Writing Assignments



Faculty were required to rank the reasons 5 to 1 (5 being the most common). “Insufficient time devoted to writing assignments” and “Ineffective organisation of information” were both ranked 3-5 by 71% of respondents. “Inadequate grammar” was ranked 3-5 by 58% of respondents and “Inadequate vocabulary” was 3-5 by 52%. 45 percent and forty-two percent of respondents ranked respectively “Failure to understand the assignment” and “Plagiarism” 3-5. Eighty-seven percent of respondents required students to do library research. In answer to the question about preferred documentation format, 23% of respondents chose American Psychological Association and Modern Language Association respectively and 19% chose Chicago Manual Style. Nineteen percent of respondents indicated that they accept any documentation style.

In seeking to elicit faculty’s objectives in assigning writing, opportunity was again allowed for ranking that produced data which suggest lecturer preference for higher order cognitive skills. (See Figure 3).

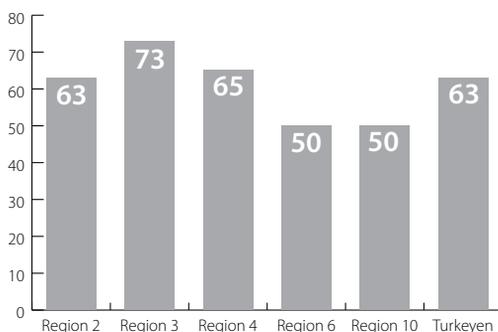
FIGURE 3: OBJECTIVES OF WRITING ASSIGNMENTS



Respondents were asked to rank reasons 5 to 1 (5 being the most preferred). The percentages that follow record those responses which ranked the reasons 3-5. Ninety percent of lecturers said that they assign writing aiming “to help students demonstrate what they understand from lectures or other learning activities”; 87% said they assign writing “to help students engage critically and thoughtfully with course readings”; 84% assign writing “to assess students’ understanding of course materials”; 77% assign writing “to encourage independent thinking” and 71% assign writing “to structure and guide inquiry”.

A similarly interesting picture was painted of lecturer expectations of student reading and writing skills (see Figure 4).

FIGURE 4:  
LECTURER EXPECTATIONS OF READING AND WRITING SKILLS (TOP 6)



Lecturers were required to rank from 5-1 (5 being the most preferred) their expectations of student demonstration of reading and writing skills. For our purposes the top six expectations were chosen. Again percentages reflect that lecturers have ranked the reading and writing skills they require from 3-5. Sixty-five percent of lecturers expect students to demonstrate the ability to summarize information; 58% expect correct grammar and adequate vocabulary; and 55% expect students to read complex texts without their instruction or guidance. On the other hand, 48% of lecturers expect students to develop and adequately support a thesis and 42% expect students to be able to use the Internet to locate information and to check for correct spelling.

Lecturers preferred students' reading and writing to be characterised by highly intellectual habits. Seventy-four percent of lecturers expect students to value "research as a means of exploring new ideas"; 65% expect students to prefer "facts and information in situations where feelings and intuitions often prevail"; 58% expect students to value "carefulness in executing reading and writing tasks"; 48% expect students to be aware "that what one researches, how one researches, and how one communicates information may differ depending upon disciplines, purposes, and readers" and 32% expect students to show "initiative ... taking responsibility for their own learning".

Some of the more valuable information came from faculty comments. These comments reflect common themes both in terms of reading (Table 9 shows: Affinity Diagram-Suggested Reading Needs; see Figure 5 for -Articulated Reading Needs) and writing (see Table 10 for -Affinity Diagram-Suggested Writing Needs; and Figure 6 for -Articulated Writing Needs).

TABLE 9 : AFFINITY DIAGRAM- SUGGESTED READING NEEDS

Critical Reading/Thinking	Motivation/Affective	Transfer Across the Curriculum	Study Skills
Ability to comprehend complex tasks to allow for their execution	Develop a love for reading to expand vistas and horizons	Guidance to read applications of subject area,	to...learn in a shorter space of time
To be able to think and view critically and look for alignment...with laws of logic	Help students approach reading...activities with confidence	See the value of this course as they develop skills within their own curriculum	Time management re analysis of reading material and summarizing relevant data
Techniques for extracting pertinent information	most students seem to lack the motivation to read	Include comprehension skills in technical written work (as part of communications course)	Techniques for extracting pertinent information
Help them to problem solve...	...a plateau from which reading appreciation will be heightened	...to understand and interpret basic ideas and concepts in the courses	
Please teach them to think/reflect	strengthened sensibilities for the various genres of reading materials		
It will help them to become more critical readers... make inferences	...the power potential of thorough comprehension skills...can remake an individual		
Students are generally weak in cognitive skills, creative skills and in generating ideas	...develop an appreciation of simple but effective writing style.		
...learn to actually read and understand			

### BACKGROUND

As a run up to The World Conference on Higher Education (Paris, 5-9 October 1998), the Regional Conference of UNESCO on *Policies and Strategies for the Transformation of Higher Education in Latin America and the Caribbean* was held in Havana, Cuba from the 18<sup>th</sup> to 22<sup>nd</sup> November, 1996. The outcome of this conference was the "Declaration about Higher Education in Latin America and the Caribbean" which, among other things, ratified article 26, paragraph 1 of the Universal Declaration of Human Rights that "every person has the right to education" and that "the access to higher education studies will be equal for all, on the basis of their corresponding merits". It also acknowledged the "special stage in history, characterised by the emergence of a new production paradigm based on the power of knowledge and the adequate handling of information" and the necessity to

train “a highly skilled staff” to ensure the requisite economic and social development. The participants at this conference declared that “higher education is an unavoidable element for social development, production, economic growth, strengthening cultural identity, maintaining social coherence, continuing the struggle against poverty and the promotion of the culture of peace.” (p.4)

In answer to the regional and subsequent world UNESCO conferences, and consistent with the Millenium Development Goals (MDGs) of the UN Millenium Declaration of September, 2000, Trinidad and Tobago launched its Vision 2020. This was also accompanied by an effort to enhance its competitiveness and to cope with the challenges of globalisation and trade liberalisation through becoming a knowledge-based economy. This primarily means social and economic transformation to achieve developed country status by the year 2020. At the core of this transformation is human development, and education is seen as one of the dimensions of human development that would assist in reducing poverty, generating sustainable employment opportunities and creating a harmonious society. This can be seen in the Government of the Republic of Trinidad and Tobago’s (GORTT) vision statement which proposes inter alia that “all citizens are assured of a sound, relevant education system tailored to meet the needs of a modern, progressive technologically advancing nation” (Office of the Prime Minister of Trinidad and Tobago, 2007 p. 1).

By 2000, just over 6% of the labour force in Trinidad and Tobago had tertiary education. This reality, combined with the thrust towards human development coming on the heels of the World Conference on Higher Education (1998), led to the view that increased access to tertiary education is critical to social and economic development. It is in this context therefore that the College of Science Technology and Applied Arts of Trinidad and Tobago (COSTAATT) was set up by Act of Parliament in 2000. It is a community college which offers two- and three-year degrees and certificate programmes and it is the first of its kind in Trinidad and Tobago. By the academic year 2006-2007 it already boasted an enrolment of 5,000 part- and full-time students of diverse profiles (see Table 1).

FIGURE 5  
PARETO CHART FOR -ARTICULATED READING

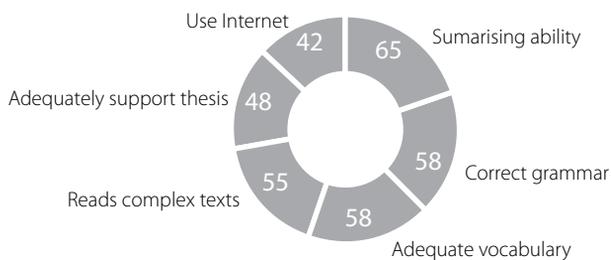
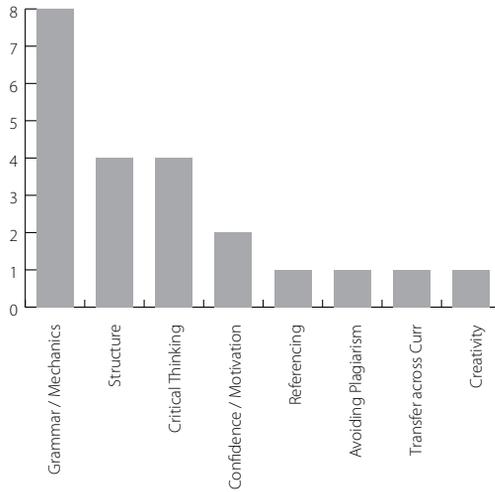


TABLE 10: AFFINITY DIAGRAM—SUGGESTED WRITING NEEDS

Grammar/ Mechanics	Structure	Critical Thinking	Transfer Across the Curriculum	Motivation	Plagiarism/ Reference
Writing lucid and grammatically correct essays	How to structure ideas in written form	Critical thinking and writing	Ensure an understanding that the writing does not stop when COMMO01 ends	Help students approach . . . writing activities with confidence	Not to plagiarise
Help in improving grammar and spelling	How to develop writing	Ability to produce clearly thought our pieces;	Using scientific data, information to write creativity	. . . boost the latent writing capabilities suppressed by fear in many adults.	Documenting research materials accurately
Short answer, grammar, spelling	Clear descriptions	Techniques for organizing		Thorough comprehensive skills. . . can remake an individual	
The basics—the sentence—the paragraph etc	Structuring answers, to write abstract introduction, core and conclusion	evidence of analytic ability			
grammar as a vehicle of meaning	Illustrating a viewpoint with coherence				

FIGURE 6:  
 PARETO CHART OF ARTICULATED WRITING NEEDS



**READING**

*THEME: CRITICAL THINKING*

Many comments reflect lecturers valuing of critical thinking and requiring the department to encourage student development in this area. Lecturers asked for an “improvement of functional literacy [and] the ability to comprehend complex tasks to allow for their execution.” Another indicated that students “needed to be able to ...think and view critically and look for alignment ... with the laws of logic.” Yet another wanted students to be taught summary skills “techniques for extracting pertinent information” and another said outright that students should be helped “to problem solve”.

*THEME: MOTIVATION TO READ*

Lecturers were conscious of the importance of reading and of students’ reluctance to read. They felt that this should be corrected: “develop a love for reading to expand vistas and horizons”; “help students approach reading ... activities with confidence”; students need “a great deal of support because most students seem to lack the motivation to read”; “instil strengthened sensibilities for the various genres of reading materials produced locally, regionally and internationally; “develop an appreciation of a simple but effective writing style. This can be achieved through reading a wide range of material-both fiction and non-fiction.”

*THEME: TRANSFER ACROSS THE CURRICULUM*

Many lecturers were anxious that the skills learnt in the developmental courses be transferred across the curriculum. One lecturer wanted students to be given “guidance to read applications of [their] subject area, current research, journals, scientific magazines and publications”; another wanted students to “see the value of [the developmental reading] course as they develop skills within their own curriculum”; yet another wanted an inclusion of “comprehension skills in technical written works” (as part of the reading course) and finally, one lecturer wanted students to be able “to understand and interpret basic ideas and concepts in the courses”.

*THEME: STUDY SKILLS*

Several comments reflected lecturers’ cognisance of the necessity for the development of study skills if students are to cope at the college level. One lecturer asked that students be helped to “learn in a shorter ... time”; another that students be taught “time management re analysis of reading material and summarising relevant data” and another wanted students to be taught “techniques for extracting pertinent information”.

**WRITING**

Like their comments on what reading needs they wanted the Department to satisfy for students, lecturers’ comments on writing needs also reflected themes.

*THEME: CRITICAL THINKING*

Again the theme of critical thinking occurred in lecturers’ assessment students’ fundamental writing needs. One lecturer said outright—“critical thinking”; One said further, the “ability to produce clearly thought out pieces; illustrating a viewpoint with both coherence and evidence of analytic ability” was necessary and another felt that the ability to use “just enough data to cover the point” was essential.

*THEME: MOTIVATION AND TRANSFER ACROSS THE CURRICULUM*

Just as in their comments on reading requirements, so too, the themes of motivation and transfer across the curriculum recurred in lecturers’ comments on how the developmental writing programme could be helpful. Lecturers felt that students needed to be helped to “approach ... writing tasks with confidence”; that there was a need to “boost the latent writing capa-

bilities suppressed by fear in many adults” and that the “magic of word use, grammar as a vehicle of meaning and the power potential of thorough comprehension skills together can remake an individual.” One comment was that students should be given the “understanding that the writing does not stop when ... [the developmental writing course] ends”. Another wanted students to be taught “creative writing in the science field”; to use “scientific data/information to write creatively”.

*THEME: GRAMMAR/MECHANICS AND STRUCTURE*

A considerable number of comments reflected lecturers’ concern that students master the grammar and mechanics of the language to organise their writing. Many comments called for students to be (i) taught to write “lucid and grammatically correct essays”; (ii) helped “in improving grammar and spelling”; (iii) taught “the basics—the sentence—the paragraph etc.”; “the use of grammar”; “the magic of word use, grammar as a vehicle of meaning” and (iv) be given “more specific help in their weak areas such as grammar and organisation of their work”. Several comments called for students to be taught “to structure ideas in written form”; “techniques for organizing”; “structuring answers”; “how to develop writing as the preferred communication tool” and “how to write essays: (abstract, introduction, core and conclusion)”.

In summary, the data generated by the operationalisation of the two research questions gave a fairly comprehensive picture of the reading and writing requirements of college level courses. The data that was generated was both qualitative and quantitative in nature. This was facilitated by the fact that there were closed as well as open questions. Careful analysis of the data should inform curricular changes that are to be made in the future.

**CONCLUSION**

Lecturers expect students to be highly intellectual self-regulated learners—valuing facts, valuing research as a means of exploring new ideas while being cognisant of the fact that the researching and communication of information differs according to subject area, purpose and audience. Such self-regulated learners must also be careful about reading and writing tasks. The findings suggest that the developmental offerings have to be revised to embrace not only writing but also reading as well.

Reading tasks assigned at the College are considerable both in amount and degree of sophistication. There has been a noteworthy trend of increasing the amount of reading assignments over the years. While most of the reading and test activities have focussed on the traditional textbook and lectures, a substantial amount of reading is of a non-traditional nature—notably web-based reading, journal articles and the

reading of newspapers and magazines. Most lecturers felt that students read adequately to meet the needs of their courses but a mere 6% felt that they read very well.

Writing tasks assigned too are considerable both in amount and degree of sophistication. Organisation—how to structure writing to express logical thought—is highly prized. Seventy-one percent of respondents ranked ineffective organisation of information as a major reason for students' writing difficulties. Writing activities range from in-class assignments which may be essays or short-answer responses to longer research based essays and reports with appropriate vocabulary usage and following established rules of grammar/mechanics and documentation guidelines. Again while most lecturers felt students handled the assigned writing tasks adequately, a mere 6% felt they did so very well and a noteworthy 26% felt that students did not handle writing assignments very well.

Another phenomenon to be noted is the preference for collaborative learning as evidenced by the existence of group work. Seventy-one percent of respondents identified group-work as an evaluation strategy. Students must therefore be taught how to take advantage of learning opportunities that present themselves in study groups (Stahl 2006).

While there is a call for focus to be placed on teaching the basics— vocabulary use and the grammar/mechanics of the language, a dominant objective behind the reading and writing tasks assigned is the promotion of critical thinking as embodied in critical reading and writing. A significant 87% of respondents identified critical thought as an objective in their writing assignments for students. Comments on how a developmental reading course and a developmental writing course could help, clearly identified that it is important to inculcate critical thinking as embodied in critical reading and critical writing in students. Seventy-four percent of respondents identified the higher-order thinking skill of problem solving as being required for success in their tests/evaluations.

Not surprisingly, lecturers felt that skills should be relevant and transferable to courses outside of the developmental education classroom. They called for the inculcation of study skills—time management, summarising, selecting relevant information, retention and retrieval of information. In fact, time management was ranked highest by 71% of respondents as the reason why students have difficulty with writing assignments.

The findings of this study have informed a draft of course objectives for a new course (see Appendix Q: Developmental Reading Course Objectives) and validated the course objectives for COMM 001—a course being currently offered. The Developmental Reading Course will attempt to

improve the reading and study skills of students so as to enable them to negotiate the college curriculum. It recognises lecturers' requirements for critical thinking, summarising, study skills and vocabulary development. Lecturers' call for the teaching of grammar and mechanics have already been addressed in the course, COMM 001, currently being offered by the department; and so there seems to be no need to revise the objectives of that course.

The draft of course objectives for the new Developmental Reading course (COMM 002) together with the findings of the study will be presented at a meeting with faculty who teach the developmental communication courses. Feedback from faculty on the draft of the new course objectives will further inform a revision of courses objectives piloted in January, 2008. This will be followed by an evaluation of this pilot of the new course. The evaluation of the pilot would involve an evaluation of student learning outcomes through surveys or focus groups of lecturers and of students who have experienced the course as well as formative and summative assessments of students' learning as a result of their pursuit of COMM 002.

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