

“GET IT! WRITE” - DEVELOPING AN ONLINE RESOURCE TO AID STUDENT ACADEMIC WRITING: A JOURNEY OF DISCOVERY

M. F. Kell and R. J. Gregson
University of Western Sydney, Sydney , Australia

Abstract— The central focus of this paper is the authors’ experiences developing an online program to assist students improve their academic writing and referencing skills in response to increasingly poor levels of student expression and quality of submitted work. The ten modules provide students with access to theory on the process and skills required in preparing tertiary level assignments and then the opportunity to practice these skills. Sociocultural and constructivist theory underpin the structure of the online program. As writers and developers familiar with academic processes we engaged with a discourse with each other and more capable others to learn new skills particularly with respect to WebCT. This was a complex process characterised by role switching so that there was not an ongoing distinct demarcation of novice and expert.

Index Terms— *Academic writing, plagiarism, WebCT*

I. INTRODUCTION - A SOCIO-CULTURAL SETTING

The authors of this paper teach in the School of Education within the College of Arts at the University of Western Sydney (UWS). By world standards the university is relatively new. Its major catchment consists of an area of 9000sq km to the west and south west of Sydney. It encompasses 5 major cities within 14 local government areas. Permanent residents in this area represent over 100 different ethnic origins. This diversity is reflected across the university’s 6 campuses. A total of 2593 domestic and onshore international students study education (Early Childhood, Primary and Secondary) at UWS. Most Early Childhood students undertake a four year undergraduate degree while a few articulate from technical and further education (TAFE) courses into the second year of a degree program. All Primary and Secondary students complete an eighteen month (or 12 month intensive) ‘add on’ degree after completing a first qualification. Up to one third of these students completed their undergraduate qualifications in a country other than Australia and in a language other than English. The School of Education offers a range of postgraduate study programs that allow students to gain Masters qualifications by course work or a mix of course work

and research. In general all Masters level programs are wholly or partially taught online.

The notion of flexibility that is associated with online delivery is typical of most Australian universities and results from fiscal ‘demands placed on higher education ...largely from policy sources beyond the control of the sector’ [1]. All students in the School of Education at UWS are expected to access WebCT, the university’s chosen platform, for all units of study. Within this context there is increasing pressure for courses to be offered online or to have substantial components offered only online.

Although the WebCT learning platform has limitations it also has some features that are appealing to universities. First, information is ‘available to students regardless of location’ [2] so that students can access sessions in a site and at a time of their choosing. Second, WebCT allows students ‘to self-pace their learning since it permits reviewing and re-visiting the content online as needed’ [2]. Finally, from the perspective of the course convenor inbuilt software tracks the frequency of visits by individual students to individual pages. These factors were influential in choosing to use the WebCT platform as a site for the location of a teaching tool that could be made available to all students.

Our reflective practices, teaching ideologies and research led to the decision to act on what we were seeing in students’ assignments. As academics within the School of Education our perspective and personal beliefs of the power of teaching and learning were a direct outcome of our experiences as and with students [3]. While we found most students to be interested and committed to their studies we were disturbed by the poor quality of writing and referencing and incidents of inadvertent plagiarism observed in student assignments. We applied for and were awarded funding by the College to develop a series of interactive and responsive modules that students could access and complete independently on WebCT. The modules were developed to address important facets of academic writing noted anecdotally through informal assessment of the characteristics of student writing [4].

These include structured planning, writing, correct referencing using APA (American Psychological Association) style and finally reading and note taking to avoid plagiarism.

Since these facets are integral to all teaching units (either face-to-face or distance mode) taught in the School of Education all students enrolled in these units had free-of-charge access to the site. The aim was for the modules to be a self-sustaining WebCT product that students could access as frequently as required and from which they could download pages of importance to them.

Neither author has extensive knowledge or experience in ICT or the use of WebCT although both have online components to the courses they teach. Nor are they from the computer savvy X-generation. The central focus of this paper is their experience of writing an effective online program to assist students to improve their academic and APA referencing skills.

II. LEARNING BY EXPERIENCE

Gaining funding to develop a WebCT site provided the authors with the opportunity to develop ideas that we had discussed for over a year. It was apparent to us that many students were struggling to understand the wording of assessment tasks and/or did not comprehend how to go about the task. Anecdotal evidence was that tutors were concerned about the level of academic writing skills and plagiarism. Consequently, poorly written assignments added to the length of time needed to adequately review each student's work.

At the same time the “affordance” [5] inherent in awarding of the grant permitted us to learn new knowledge about WebCT, made it part of our professional repertoire of academic skills. Underpinning our desire to undertake the project was the intrinsic desire to make a difference to the skills of the students we teach [7]. Such intrinsic motivation, although laudable, did not mean that the project was without many challenges.

A. Challenges of writing the modules

The challenges that we encountered in the process of writing and uploading the modules can be classified into four broad areas: understanding ourselves and our capabilities as writers and users of information technology; understanding the limits of technology; understanding the process of writing for and developing a web site; and time.

1) *Understanding ourselves and our capabilities as writers and users of information technology*

There was an assumption on our part that having written lengthy doctoral theses we were capable writers. What we found is that our individual stylistic approach to writing conformed strongly to sociocultural principles. That is, each of us had adapted approaches to writing that reflected our ontogenetic and cultural background and experiences. As a result the process of writing the

content and uploading it onto WebCT was one of concentrated social interaction that could be characterised as constructive collaboration. That is, as educators from different fields working together to solve a common problem we had identified in our students' work, we constructed new understandings about each other and the task at hand. We learnt from each other and we learnt from others more expert in the fields of student assistance and WebCT. Implicit in this was a growing awareness of ourselves as writers, as teacher who make demands on our students with regard to writing, as users of technology and as collaborators. This awareness was not instant but developed as we engaged in a sequence of activities. The first of these was negotiating a common position from our different perspectives of students' difficulties.

a) *Negotiating a common perspective*

Even though we had jointly written a funding proposal it was not until we started to plan the tutorial that the truth hit: Robyn was very concerned about writing and Marilyn was very concerned about referencing and plagiarism and each had envisaged the project within her own perceptions of the problem. Having concluded that the tutorial should encompass writing and referencing we spent considerable time researching and brainstorming the process of preparing a tertiary level assignment before deciding on ten modules (Appendix 1).

The ongoing task was then to negotiate who would write particular modules. Initially the decision was based on our particular areas of interest and expertise. However, it became apparent that writing was far more complex than either of us had anticipated. As a result of further negotiation aimed at more evenly dividing the task Robyn addressed issues of reading, note taking and writing while Marilyn focussed on preparation, planning and referencing. Then in a process reminiscent of that described by Hartley [6] we met to discuss and edit the modules line-by-line, writing and rewriting, cutting and pasting, coaxing them into the form we were seeking. This was an important stage where egos were put aside and we focussed on the finished product. At the suggestion of a student we later added modules on oral presentation and formatting.

Achieving the finished product was highly dependent on sharing our common perspective with university partners. Predominantly this was the staff of the WebCT unit. At UWS we are fortunate that there is a dedicated team whose sole task is to teach about and support WebCT. We met with staff from this unit over two and a half days during the ten weeks of the project. Much of our meeting time involved joining our common perspective to their expert knowledge of WebCT. At least twice we met with preconceptions of what the finished site would look like only to discover that our ideas were incompatible with WebCT capabilities. Disappointing as this was it helped us to learn more about the difference between web pages and WebCT.

b) Embracing the literature

To ensure the accuracy of the information to be given to students and staff both authors engaged extensively with recent literature on academic writing, grammar, referencing and online learning. The types of writing and referencing difficulties we had observed in our students were reported in the research and in many instances the resultant strategies were similar to the ones we were proposing. However, in other instances the suggested strategies were divergent. Several university websites, for example, emphasised on the dishonesty aspect of plagiarism rather than on scaffolding student learning so the plagiarism would not occur.

In seeking to find strategies that could best assist our students we became inveterate rummagers in bookshops in cities across Australia and have assembled an extensive collection of study skills publications. The Student Support unit at our university provided us with copies of the materials they have written and we also accessed writing and referencing pages from other universities. From this collection we compiled and informally evaluated a list of interventions and strategies to assist student writing. An important focus here was finding strategies that could be represented effectively within a WebCT framework. For example, strategies that consisted of multiple linked steps were discarded as we considered that students would probably not follow a long sequence of tasks. The final strategies selected were then incorporated into one of the 10 modules produced.

Development of the modules reflected the importance placed on writing since recent research [7] has established the importance of explicitly developing student understanding of the writing process as well as providing opportunities for students to practice writing skills. In acknowledging that ‘writing promotes language development and knowledge construction ... deepens understanding and critical thinking’ [8], we structured the tutorial around a universal education theme—literacy teaching. The aim here was to provide opportunities for the students to engage in authentic and writing-based tasks. Each module was designed to allow students to construct knowledge purposefully by contextualising their learning. We expected the students to build knowledge by using physical and psychological tools and intellectual processes that were authentically located in their studies.

From a sociocultural perspective this aspect of the project provided opportunities for us to deeply engage with elements of writing in particular that had become part of our culture, as academics. Familiarity with aspects such as syntax and paragraph structure had not, however, helped us to understand the problems students might have or prepared us to teach these skills. Part of our discussions centred on positioning ourselves as novices who find the demands of academic writing and referencing confusing. As a result each module became

the type of recursive dyad that is typical of early learning in a sociocultural model. This is reflected in the final structure of the modules that allows students to return to any page as often as they need, particularly if they need to revisit a skill. They are also able to download any page for frequent reference. Thus individual pages of the modules become the semiotic materials that guide learners from lower to higher mental functioning.

The modules were designed to scaffold student learning, thus representing a constructivist approach to online learning. Scaffolding is achieved in several ways. This includes enabling students to enter or exit the program at any time and allowing them to practice skills as often as they desire in formats that suit each individual learner. Students are also able to access and practice the content of the modules as frequently as they need. After moving through an introductory portal students are able to access any module or any single aspect of a module as frequently as they need. This is enhanced by an inherent characteristic of WebCT allowing users to move forward or backtrack. Research indicates that when appropriate sociocultural conditions exist, permitting adult learners to practice specific skills repeatedly without censure, the learners are highly likely to become confident and competent in the use of those skills [9]. Finally, students are permitted to download or print hard copies of any of the pages thus enabling those who learn better from print rather than a computer screen opportunities to access the content.

The structure of the modules evolved to contain some theory related to the focus of the module, work samples and practical activities. The activities written using StudyMate[®] or Respondus[®] serve both as culminating tasks for students and as a mode of data collection for us. Again students can undertake these activities as often as they want. The emphasis here is on the process of learning rather than on the result of an activity. This emphasis is a direct reflection of sociocultural principles.

2) Understanding the limits of technology

As baby boomers keeping up with the mysteries of the constantly evolving field of computer technology is a challenge. As relatively new users of more specialised technologies such as WebCT we felt that we were sufficiently knowledgeable to create a useful site for students. As daily users of computers for word processing, sending and receiving mail and surfing the web we were confident that we were capable of the task we had before us. Both of these assumptions proved to be erroneous.

a) Learning about WebCT

One of the goals of this project was to produce a simple, user-friendly guide that the students would use. For example, we decided to keep terminology and the quantity of written material on each page to a minimum. In addition we decided that it would be more useful if it were possible to have multi-entry points but also allow a

flexible transition from one module to another. We were hoping to be able to use the types of menu items commonly seen on web pages such as ‘back to home page’, ‘next page’ or arrows directing students straight to the areas they next wanted to view. This is the point at which our limited experience in using and developing WebCT sites became a distinct disadvantage as we did not have a clear idea of the structure of WebCT as will be discussed later in this paper. The inherent ‘designer constraints’ [10] of WebCT became one of the challenges. We had written several units to show the WebCT staff before it was determined that we would not be able to structure the modules as suggested previously. Our lack of understanding and experience in developing a WebCT site meant that many things we tried and would like to have included needed to be modified or discounted.

A particular instance of this was student activities. We would have preferred to prepare a wide range of activities that were directly linked with the module section that a student addressed. For example, when learning about the main points of an assignment task it would have been valuable for students ‘to practice and check their understanding’ [10] of a specific skill. However, using Respondus® and StudyMate® only allowed us to insert general quiz-type questions at the completion of the module. Also, for research purposes it would have been valuable to have had some sort of data collecting process enabling us to record how many and which students visited each module, and whether they attempted and how well they went in each attempt of the activity. In reality the activities were placed somewhat separately at the end of the module. By using Respondus® to develop some activities we have been able to assess the number of students who visited each activity. Other activities, such as crosswords and matching definitions to terms had to be developed using StudyMate® which did not allow us to collect student usage data.

A vital component of WebCT is the use of banners and icons. Since research demonstrates that appropriate icons and banners assists learners by creating interest and arousing curiosity [11] we decided to use icons and banners that were different to any other WebCT site available to students. This made the site distinctively different and professional and, at the same time, user-friendly. Unfortunately this was an aspect of the site design that we had not considered in our funding proposal we had to depend on the generosity of a family member who had a keen interest in computing. The most challenging aspect of this stage was explaining the purpose of each module and its associated pages. Eventually a set of banners and icons were developed that largely reflect the purpose of the modules and indicate similar activities. For example all quiz and game activities have the same icon which students can readily identify.

b) The PC/Apple challenge

The other aspect of technology that was confronting and extremely challenging was the equipment we were using. UWS prefers and promotes the use of personal computers (PCs) based on IBM technology. Robyn uses a university supplied laptop. On the other hand Marilyn uses a PC at work and a Mackintosh iBook at home (some 100km from the campus). During the project Robyn’s laptop failed several times, losing all files. It finally collapsed and she was supplied with a new laptop. Sadly, the dropout problems did not improve dramatically. However, she was able to use the WebDav to upload and edit data onto WebCT effectively. Marilyn’s iBook worked efficiently and became the site for collecting and storing data beyond the university. Her difficulties arose with uploading documents through WebDav, Respondus® and StudyMate®. Although Goliath® 1.0.1 was installed the process was cumbersome, time consuming and stressful. Further, on the advice of the WebCT team we were able to improve the quality of pages on WebCT by using HyperTextMarkup Language (html). While this was really useful on the PCs, it did not work on the iBook. As a result Marilyn needed to borrow a PC laptop from the university or work on campus. The implications of all of these hardware and software issues in terms of time, frustration and the pressure of working to a deadline were something we had not considered when starting this journey.

3) Understanding the process of writing for and developing a web site

One of the earlier challenges we had to face was writing in a style and manner that would be appealing, interesting and engaging for students from a range of educational backgrounds. Having both recently completed doctoral theses we were familiar and comfortable with an expanded essay format. However, in writing for web pages we needed to explain break down a complex process into easily achievable steps.

a) The writing process

Reviewing other web sites on writing and referencing we found that lengthy descriptions were uninteresting and reduced the impact of the page. To help us write in a manner that would be comprehended by most students we engaged a high achieving undergraduate student to provide input to several modules. Her insights into organising, planning, researching, note taking, writing and editing added authenticity to a product that we aimed to make student-friendly. An outcome of this approach was that we added more detail. Eventually we realised that we had ‘to start [the tutorial] at a more basic level than had originally been expected’ [12, p. 25]. While this may be regarded as lowering the standard of the site, we believe it has enhanced it by providing the detail that students require.

Each page began life as a series of notes. Working independently on specific components the notes were then written in prose. In a collaborative mode we then reduced the prose to a minimal number of sentences and a

series of essential bullet points. At any time the text that was originally conceived as a single page could become multiple pages. Very often we could only maintain the integrity of a module by sketching out its framework. The aim of introducing new pages was to reduce information to a single frame. That is, when viewed on WebCT a reader would not need to scroll down the page. While this was not always achieved it is typical of the site. A consequence of this was that the overall design of each module when mapped looked like a tree diagram indicating a central proposition, various aspects of it and deeper, more detailed description and explanation. Since students are able to access any aspect of a central topic this structure thus provides the scaffolding that is characteristic of a sociocultural approach to learning and teaching.

b) Communicating with the WebCT staff

Working collaboratively with the WebCT staff is an illustration of a “community of practice” [12, p. 98]. This term relates to the sociocultural notion of learning occurring in a specific situation, time or place. Interactions within communities of practice result in transmission of knowledge and skills between experts and novices leading to the development of higher mental functioning. In this instance we were the novices and the WebCT staff were the experts.

Despite our confidence in using WebCT it soon became apparent that ‘the WebCT learning environment [can] be quite difficult to use’ [8, p.21]. Its superficial simplicity conceals the fact that it is not a very intuitive program. Users need to understand that ‘many of the basic file management functions are unique to WebCT and do not follow usual Windows conventions’ [2, unpaginated]. We did not. Neither did we understand the steep learning curve that we were on. Consequently, while both authors were able to negotiate the content to be covered, the final structure of the web site and the interactive components were outside their personal and professional experiences. Early in the process meetings were arranged with WebCT staff firstly to inform them of the goals of the project and then to familiarise them with some of the content. They were presented with completed modules and ideas for interactive components that we wanted to include. We were dependent on the WebCT staff to inform us of what possibilities were open to us in terms of final structure of each module and what and how interactive components could be incorporated.

Early discussions centred on planning a structure for the site. The initial meeting in particular involved an exchange of ideas—our aspirations and WebCT possibilities. With the vision of hindsight it is now clear that our unfamiliarity with WebCT did not allow insight into the limitations. For example, writing subsequent to this meeting included hyperlinks to other useful sites. What we did not realise is that it is not possible to activate hyperlinks that are embedded in Word documents uploaded on WebCT.

In sociocultural terms we were very much the novices in this aspect of the work. To their credit the WebCT team demonstrated the attributes characteristic of successful adult learning situations [9]. In general they were exceptionally patient, respected our knowledge and experience, spent time modelling and remodelling the tasks (sometimes many times over), were firm but fair, gave praise when it was owing and had some empathy for us as learners. Perhaps the most important element was that they had a positive attitude and a determination to succeed despite the sometimes silly things that we did. We felt that, as teachers, they recognised different learning styles and were able to fit that within the work situation.

c) Formatting for WebCT

While both of us had used online learning for teaching purposes there were several aspects of WebCT that were vital in the project and, initially, unfamiliar to us. Neither of us had used the WebDav option for uploading Word® documents into WebCT files. The benefit of this option for PC users is the ability to edit Word documents without downloading them. The same process was not as easy or efficient on a Mac.

In order to introduce activities for the students the WebCT staff gave us the option to design quizzes and puzzles using Respondus® and StudyMate®. Each of these applications provides a framework for a range of quiz and assessment activities. We were able to write these activities in Word and a colleague transposed them into crosswords, multiple or short answer, and multiple choice activities. We believe that the addition of these tasks is advantageous to students since they allow the student to check understanding of the content of all or part of a module in an engaging and non-threatening mode. In addition we are able to monitor students access to modules and their success rate on individual tasks.

A Canadian study [2] used Microsoft’s Image Composer® in an engaging and non-threatening mode in an engaging and non-threatening mode to mark up Word files into HTML. This was suggested to us by the WebCT staff. However, neither of us had this program installed on our computers, had not budgeted for it and knew that the School of Education was unable to purchase it for us. This is a pity really because we discovered how simple editing in HTML was and believed that the final appearance of the site would have been enhanced with documents produced as HTML files.

4) Time, time, time

Research indicates that writing and uploading online material is time consuming. Martin and Lee [2] for example found that it took four individuals a total of 155 hours to write, web format and upload modules. They note that moving to an online format ‘did not reduce workload’. Our experiences concur with these findings. We estimate that each module ‘cost’ 15 to 20 hours. In

addition to this was the time spent in meetings with our collaborators. This time expenditure is not insignificant. However, it does not take into account any ongoing maintenance of the site, regular and frequent response to student feedback or researching and writing papers from the experience. Further, although WebCT stores data on student hits there has been no time to do more than access these data.

III. WHAT WE LEARNT

Undertaking this project provided many opportunities for us to learn. The learning was not just about the task or the needs of students but also included learning how to work collaboratively, manage a project budget and most importantly about our perspectives on teaching.

Almost every stage of the process described above was problematic for us. Our assumption that we understood WebCT was sadly misplaced. It did not take long for us to realise that our seemingly extensive knowledge barely scratched the surface of the intricacies of the program. Realising this, we decided to focus on writing and leave the WebCT knowledge until later. In retrospect this was a poor decision as we could only upload the content after major rewriting.

The time limitations (10 weeks) for design to implementation placed many constraints on us. In particular it did not allow sufficient time for the amount of trialing, reviewing and questioning the platform that we seemed to need. All too often the pressures of our other academic and teaching responsibilities impinged on the time we were able to allocate to learning new skills.

A consequence of our inability to appropriate the WebCT skills to a stage of automaticity is that neither of us can confidently maintain the site. We are still largely dependent on the staff of the WebCT unit to solve novel problems which arise from time to time. Grateful as we are for this support it would be more meaningful if we could, at least, propose possible solutions to the WebCT staff. So while we learnt a great deal it was insufficient for us to become truly independent users of the technology and find that when students asks us about problems we have to refer to others.

A. *Learning new skills to achieve the task*

As has already been noted, undertaking this project put us in the position of novices. We learnt from any number of people including the WebCT staff, academics in from the Student Support Centre, a current student, a prospective mature age student and a research assistant. For us learning occurred in authentic settings involving exchanges of knowledge in a social context. From a sociocultural perspective such learning is meaningful and conducive to the development of higher mental functions. In effect we created a ‘community of practice’ [12, p. 98] where cultural tools and signs were transmitted via speech (including writing) and then internalised and appropriated. The process of appropriation is one where

internalised knowledge is reconfigured, reorganised and restructured internally, resulting in new learning.

It is possible to list many of the new skills we learnt such as an enhanced knowledge of writing, reading and note taking or more expert knowledge of APA referencing style, using Web Dav or HTML. But the most significant learning was about us as learners, collaborators and academics. Although both of us have written about and our teaching is premised on constructivist pedagogies, this project propelled us into a constructivist mode of working. Inherent in this was the notion that we chose how, what and when we learnt specific skills. For example, although under the tutelage of WebCT staff we learnt more about the WebCT environment than we had known we decided independently that writing and uploading quizzes and activities from StudyMate[®] and Respondus[®] too complex for the time that we had available to us. This task was left to a research assistant who has now developed expertise in this facet of WebCT.

B. *Working collaboratively*

This project had important implications for two academics who work from a constructivist perspective and for whom all experiences are learning experiences. In overcoming the first hurdle – reaching a common understanding – we demonstrated the benefits of working collaboratively to construct new learning. At no time was either dominant or dominating. Rather we seemed to become very aware of the others need for support and encouragement or need for space. While there were times of deep thought and at times concern and anguish there were also times of laughter and glee. So the first learning was about ourselves, independently and as a team.

Motivated by the mutual goal of assisting students brought the authors together. Although we are from different fields within education working together on this project enabled us to learn from and about each other, establishing a firm professional respect and personal friendship. The power of two heads rather than one has enabled us to overcome the barriers that littered the path of this project. We have developed into a team to take on further research projects, confident in our ability to push the envelope and challenge ourselves as individuals and as team.

C. *Managing a project*

In the midst of ongoing teaching, Marilyn completing her doctoral thesis and Robyn preparing to take a group of students overseas we had one week to write the proposal for this project. As early career researchers we had very limited experience of developing proposals or managing budgets. That the College of Arts saw merit in our application and awarded us the funds we had requested is testament to the quality of our proposal.

However, as with our knowledge of WebCT, lack of experience in developing proposals and managing budgets soon became apparent. First, our initial conception of the scope of the task was far too limited. The time allocated for the project did not represent the actual time taken to complete researching, writing, revising, rewriting, editing and uploading the modules. Extra time came from our other academic and teaching pursuits and we quickly found that there was ebb and flow in our activities. Sometimes Robyn could spend more time on the project and at other times Marilyn found a few hours of extra time.

Another difficulty we encountered was budgeting for the project. While there were sufficient funds to recompense the three research assistants who helped us there were no funds for the development of banners and images. In many respects this shortfall relates to the former issue. That is, we had not thought through the details of the project sufficiently to identify all the possible components of a new website.

Underpinning these difficulties was an assumption on the part of the university's administration that we would know how to manage a project. On several occasions we administrative tasks were made more complex because we did not know or understand standard operating procedures particularly in regard to transferring funds and employing staff. At no stage were we offered assistance at the school, college or university level. Despite this our project was completed on time and within budget due largely to the strength of the team we had developed.

D. Understanding teaching and learning from a sociocultural perspective

As academics we ask our students to consider teaching from a constructivist perspective founded on sociocultural principles. Undertaking this project allowed us to become part of a learning teaching process, placing ourselves in the place of our students. Part of that process was learning how to learn. At times either or both of us struggled with the technology or the new concepts. This struggle was indicative of the sociocultural process we were engaged in. As previously noted we believed that we had adequate, if rudimentary, knowledge of WebCT and were competent and confident users of generic technology applications. However, achieving our goal required a deeper knowledge of the WebCT platform resulting in cognitive overload. As Selinger [13] notes this results from attempting to attend to the new knowledge *and* construct the content simultaneously. From a sociocultural context cognitive overload related to the degree to which knowledge and skills are appropriated and automated.

Appropriation is a process of reconfiguring, reorganising and restructuring internalised knowledge internally to a stage of automation that typically occurs when learning is socially situated. For appropriation to ensue in ICT environment, for example, learners must first make the

physical tools of the software work in a manner that is comprehensible. Confidence in the routine use of a physical tool, such as a software program, results in thinking about it and transforming the physical to the psychological. Increasingly meaning is constructed through the manipulation and appropriation of such psychological tools. Appropriation is driven and characterised by observation, trialling, reviewing and questioning of the software and its capabilities. Research indicates that when opportunities for reinforcement, practice, manipulation and appropriation of new skills in relation to previously held concepts are not available the meaningfulness of learning is reduced [9].

IV. DID WE SUCCEED?

A. Our success

The project discussed in this paper lead to the development of a series of interactive modules to assist students enrolled in the School of Education at the University of Western Sydney in writing and correctly referencing their assignments. The resultant package consists of 10 modules that students can access and complete independently on WebCT. We have anecdotal evidence that academic staff, including the Vice Chancellor see merit in the solution we found to a specific academic problem. Although the main criteria for success of this project in the short term, completing the task on time and within budget, was achieved, other, important but indicators of short term success also emerged.

1) Short term outcomes

The close partnership between the academics and the WebCT team, established during the course of the project, was conducive to a productive exchange of ideas and knowledge. In particular it provided opportunities for the academics to gain expertise in Web page development that would normally be beyond the parameters of current professional development programs. The mode of this interchange of ideas was made more convenient as the academic partners and support team were able to meet in sessions that were specifically designed to meet the needs of this project. The time together also provided the WebCT team with the opportunity to expand their knowledge of the needs of academics and their students. At the same time we, as academics, made requests of them that extended their knowledge of the product. With their patient support we have developed a site that is bright, colourful and guides and supports students.

Apart from learning about the technology, creating the content provided the opportunity for us to learn more about writing and referencing using APA style. An unexpected outcome of this is that we are now much more aware of the difficulties our students face. As a result both of us have incorporated explicit teaching of academic writing and referencing in our courses.

Students in general are appreciative of this since they have found that their teachers assume they already have this knowledge. Thus in a strangely circuitous fashion we do not want our students to be disadvantaged by the sorts of assumptions we placed on ourselves.

Student accessibility to the site is high. Currently, in excess of 2000 students have access to the modules. Although not all those enabled access the site, the feedback on the “Feedback” page indicates that students are engaging with the modules. In particular they are focussing on module 9 that addresses referencing in an effort to ensure that they reference accurately. Anecdotal evidence from lecturers, however, is that, if students access the site, it is only to check on what they think they need. In effect this means that students do not read the pages on planning, preparation, reading, note taking and writing, preferring to access only the referencing module.

2) *Long term outcomes*

Since this project did not include a research component it is not possible to assess achievement of the long terms goals of the project. We believe it is important to gain empirical data to support the anecdotal evidence we have. In this respect Marilyn has submitted a funding application to conduct a pilot study on students’ usage of the site and Robyn will shortly submit an application for a full scale evaluation study. Indicators that should be assessed include:

- Patterns of student usage.
- Patterns of staff comprehension of the site and consequent patterns of directing students to the site
- The number of hits by students
- Student discussion and evaluation of the site
- Reduced time taken by academics to assess students’ written tasks when students are required to demonstrate use of Get it! Write modules.

B. Students’ response

Anecdotal evidence indicates that when academics direct student to Get it! Write the students are more conscious of writing and referencing requirements. It seems that having a free resource available on line does not help many students. Anecdotally students report three major reasons for their less than enthusiastic reception of the site.

First, students believe that they do not have the time to ‘muck round’ with a web site. Our experience has been that when students cite this reason and are explicitly directed to the site because of the poor standard of writing and/or referencing subsequent work is of a higher standard.

Second, students believe that they already understand how to read, write and reference to an appropriate standard. This is a remarkably resilient and possibly

truculent group. Typically these students have, for example, learnt to use a Harvard style of referencing and are very unwilling to use the APA style adopted by the School of Education. This cohort may be the most difficult to educate. In addition, some students expressed scepticism because over the years different lecturers had taught them “different versions” of APA. The confusion that exists needs to be ameliorated by a targeted introductory program.

Finally, some students have very little confidence in their ability to use ICT. In what may be described as cognitive overload these students struggle with the basics of using WebCT including navigating backward and forward and lose all confidence when something unexpected occurs.

V. WHERE TO FROM NOW?

The modules of Get it! Write provide students with structures for writing and referencing that should, in the long term reduce the time academics spend marking poorly written assignments as well as the stress levels and acrimony from students. Implementation and introduction of the site suffered from institutional limitations. Specifically this relates to the time allocated for staff and students to be introduced and oriented to the site, a minimal 15 minutes in both cases. Further, demonstrations were made without a connection to the Internet! Consequently knowledge of the site and its capabilities was limited in the first half of 2006.

The Get it! Write site appears to have provided information and guidance to students to support their understanding and observance of the principles of scholarly inquiry and ethical conduct. The number of students who have accessed the site on multiple occasions demonstrates this point. The most frequent user to date has visited the site more than 400 times! Follow up from student feedback about the sorts of information they would find useful and some fine tuning of the site should result in the benefits to staff and students originally proposed. However, accurate measurement of any benefits can only be assessed through a research process.

VI.

REFERENCES

- [1] J. Bird, “Mapping flexibilities, “Transforming knowledge into wisdom Holistic approaches to teaching and learning, HERDSA 2004, Miri, Sarawak July 4-7.
- [2] K. B. Martin and J. Lee, “Using a WebCT to develop a research skills module”, *Issues in Science and Technology Librarianship*, unpaginated, Spring 2003,.
- [3] M. Panko, “Teaching beliefs and the practice of e-moderators: Presage, process and product”, in *Higher Education in a Changing World HERDSA Annual Conference*, A. Brew; C. Asman Eds. Sydney 3-6 July, 2005, pp. 372-380.
- [4] S. Segrave, D. Holt and J. Farmer, “The Power of the 6 three model for enhancing academic teachers’ capacities for effective online teaching and learning: Benefits, initiatives and future directions,” *Australasian Journal of Educational Technology* 2005 (21)1, pp. 118-135.

- [5] S. Billett, “Workplace affordances and individual engagement at work,” *Research to reality: Putting VET research to work* [4th AVETRA Conference, Adelaide, 29-30 March, p. 210, 2001].
- [6] J. Hartley, “Students, writing and computers,” *Psychology Learning and Teaching*, vol 1, no.1, pp. 10-15, July 2001.
- [7] R. J. Gregson, “ ‘But that’s what I meant to write’: Exploring students’ use of writing in Science,” Unpublished doctoral thesis, University of Technology Sydney, 2003.
- [8] S. Lindblom-Ylänne and H. Pihlajamäki, “Can a collaborative network environment enhance essay-writing processes?,” *British Journal of Educational Technology* vol 34, no. 1, pp. 17-30 2003.
- [9] M. Kell, M. “Learning by experience Reconstructing the literacy engagement of nine men who self-report literacy difficulties,” Unpublished doctoral thesis, University of Western Sydney, 2005.
- [10] M. Kendall and H. Booth, “Developing generic online tutorials as a strategy for extending the use of WebCT,” *4th Annual LTSN-ICS Conference, NUI Galway*, 2003, pp. 21-26.
- [11] R. Negretti, “Web-based activities and SLA: A conversation analysis research approach,” *Language Learning and Technology*, pp. 75-87, 1999, vol 3, no.1.
- [12] J. Lave and E. Wenger, *Situated learning Legitimate peripheral participation*. Cambridge, UK Cambridge University Press, 1991.
- [13] M. Selinger, Learning information and communication technology skills and the subject context of the learning, *Journal of Information Technology for Teacher Education*, pp. 143-156, 2001, vol 19, nos. 1 and 2.

AUTHORS

M. F. Kell is with the School of Education at the University of Western Sydney, Sydney, Australia (e-mail: m.kell@uws.edu.au).

R. J. Gregson is with the School of Education at the University of Western Sydney, Sydney, Australia (e-mail: r.gregson@uws.edu.au).

Manuscript received 29 October 2006. The project which is the subject of this paper was supported by the College of Arts, University of Western Sydney Grant BS123456.

Appendix

The 10 modules of Get it! Write.

Module 1: Introduction

Module 2: Before you start your assignment

Module 3: Getting started

Module 4: Interpreting the question

Module 5: Reading tips

Module 6: Note making tips

Module 7: Writing

Module 8: Referencing

Module 9: Formatting

Module 10: Oral presentations