E Help Desk

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ABSTRACT

Decreased government funding and increased pressure to work smarter have been the impetus to move to using more on-line tools for teaching. In some subject areas, this has been reasonably straight-forward but in others "this wave of change has brought with it an increased burden on teaching staff which has eroded any real gains brought about by teaching on line"(Hart, G 1997). Judicious selection of the portion of courses that can be delivered electronically is vital in determining the success of the course outcomes. This paper describes and examines the changes made in a Help Desk course, which previously had relied heavily on face to face contact with industry, the lecturer and students. It details a move from a Lecturer/Industry dominated process to one which involves the student in a learner centred, constructivist process using electronic means to maintain communication between student, lecturer and Industry contact.

KEYWORDS

Work Based placement, IT Students, Help Desk, Electronic Mentoring, Electronic Monitoring, Electronic Assessment, Industry contacts

1. BACKGROUND

The required student/staff ratio has reached a point where staff can no longer spend more time with companies and students than is absolutely essential. To facilitate this, in 2001, changes were made to the administration of the "placement" component of the Help Desk paper of the BCS at UNITEC. This paper examines the changes made to the structure and delivery of the course, how the workload of the staff member changed and the impact on the learning of the students.

The students concerned are studying to become IT professionals and intend working in the area of user support including training. Because of this, and at the insistence of our industry Advisory Committee, they are placed in the workforce in a Help Desk position. Since inquiries by email are increasing to the point where

they have almost overtaken telephone inquiries, it was felt that students should be entrenched in this mode of communication. As new research shows that people spend twice as much time on-line at the office as they do at home, (Fox, 2000), survival in the IT industry will depend on their ability, familiarity and conduct in this environment.

2. THE PAPER INVOLVED – HELP DESK (ISCG 624)

The Help Desk course (ISCG 624) is a popular second year course which has been taught on our degree programme since 1997. There are several components. The work placement component was designed for assessment by round table discussion with the Help Desk Host Supervisor.

The training component of this paper requires students to contact and arrange suitable times, venues and training requirements for campus administration staff who require training on selected software.

The documentation component of the paper requires a log kept of their placement interactions, reports on strategies used and training guides.

3. STUDY QUESTIONS

1 Can electronic communication be used to improve the efficiency, of the administration requirements and assist with student preparation?
2 Can the responsibility for the communication be shifted from the lecturer to the student?
3 Which components of the course are suitable for a change to electronic means?
4 How will these changes be perceived by industry?

4. APPROACH

It was proposed to use on-line methods for as many components of the Help Desk course, including the search for host companies, the negotiations, the selection and placement of students, the monitoring and mentoring of students and the company's assessment of that student.

This is single case study is used as a critical case for evaluation.

5. DATA GATHERING AND INTERPRETATION

To assess the effectiveness of the changes made, written verbal and behavioural responses were collected and analysed qualitatively leading to empirical conclusions.

6. MAKING USE OF E-COMMUNICATION

Teaching, like any other business, is adopting e-technology in order to cope with increased staff/student ratios and reduced resources and, like Anderson (1997) and (McSporran 1997), we agree that we must use technology to lighten the administration burden imposed on teachers by increased workload. The lack of time in business has led to electronic means of communication becoming more prevalent in the computer industry. Call centres are noting that "telephone communication is steadily declining while email is going up and up"(Palmer 2000). And furthermore "customers are also starting to expect the same response times from an email as they do from a telephone call" (ibid.).

Because of this, it is essential that Help Desk students maximise their exposure to this form of online communication. At the same time, the exponential increase in the administration of teaching has greatly increased the burden on lecturers, which means that lecturers, also, must use these new tools to improve their efficiency. These include all forms of electronic communication (email, bulletin boards, blackboard, WebPages etc) and voice mail.

To accomplish this, the rationalisation of the placement procedures was a priority. Students must gain industry experience so, just as industry has arranged web access for their clients, it follows that lecturers must provide this service to their students.

During the first six weeks whilst the lecturer works to prepare the students for immersion in a Help Desk role, he/she arranges site visits and discussions with prospective host companies. This is very time consuming. Some establishments and faculties have help with this type of administration work but our department does not, so the Lecturer is expected to find Host companies and place suitable students with these companies, matching their skill set requirements.

Traditionally the contacts for placement have been via an introduction from our Advisory Committee or as a result of the lecturer networking at the New Zealand Computer Society gatherings or Industry events. Having made a contact, appointments were made and interviews attended. Questionnaires regarding the quality of the involvement the student was apt to gain were completed by the company and assessed by the lecturer. Once a site was approved, the Lecturer visited the site and was introduced to the supervisor who would work with the student.

Meanwhile in class sessions, paper class notes were delivered and lecturers and worked with the students developing their problem solving skills, interpersonal skills, preparing CVs, and delivering the theory component of setting up and running a Help Desk. Based on their development and improvement in these areas, decisions were made as to the appropriateness of the Host Company for placement of particular students.

A letter, which included the student's CV, was generated from the office. A choice of 3 students was offered to the Host Company. Host companies' representatives tended to use telephone communication during this phase of the proceedings and since Lecturers are notoriously hard to contact, the actual decision on who to place where and when could take several weeks. Previously only the successful of the three students undertook the final call to the Host Company, usually the day before placement. Final letters of placement generated by traditional means were sent with an enclosure of the formal contract between the student and UNITEC. This system placed considerable strain on the Supervisor and often led to last minute placement.

Once the Industry placement was under way the students attended a tutorial once a week, at which time any problems/issues were discussed. The Lecturer visited the site and checked on the student at least once during their placement. A round table discussion on the student's performance was performed with the Industry contacts giving feedback to the student and suggestions for improvement. At the end of the placement, a thank-you letter was generated by the Lecturer, and the Host Company was offered access to the report, which formed part of the assessment that the student had to complete.

7. CHANGES IN SEMESTER 2, 2000

In order to embrace the e-communication culture, the lecturer prepared a Web-site for the course and used it as the main method of communication. All lesson plans, the list of topics, announcements and documents were placed on the web-site prior to commencement of the course. Email canvassing for placements in Host Companies was tried on companies that had previously hosted students, and with whom we had already established a relationship, originally from face-to face (F2F) contact. An evaluation for the suitability of the company in giving quality experience to our students was made.

The students helped with the research of the companies, checking websites for current contacts and changes to the company structure, focus, core business and location. (E.g. one company had relocated to Hamilton). Details from their findings were used to update the Help Desk database on companies and this was augmented by on-line written documentation of a reflective nature provided by previous students placed with that company. This was paramount in the selection of preferred companies by the individual students. Self-awareness and student background were considerations whilst this selection was vetted by the lecturer. Using knowledge of the companies or the attributes of previously selected successful students, advice was given re the suitability of the applicant. Present students were encouraged to limit their choices to companies in which the lecturer felt they had the greatest chance of success. The students requiring placement posted their CVs on the Intranet website. The selected host companies were given guest logins to allow them to peruse only those

students' CVs. Negotiations between the lecturer and the host sites were done via email. As noted by Coggin and Schwemmscumhuh (1994:223) "any pre-selection needs to be carefully worked out between the institution and the employer."

Once agreement for placement had been secured a formal paper based letter of introduction and contract between the student, the company and UNITEC was generated. At this stage the lecturer formally handed over to the student the responsibility for operational aspects of the placement. Students could view a host's website as preparation before starting Co-operative experience, which allowed them to become familiar with the company history, the size of the company, the business sector, the main operational issues, the customer base and many other areas, right down to the location of the company carpark.

The students used electronic communication and voice mail to finalise timing details with their supervisor in the Host Company. This supervisor had been nominated by our industry contact person within the Host Company and approved by the lecturer. Many managers agree to host a student and then nominate a contact person.

Once the students were placed, the next round of communication began. The students were required to e-communicate daily whilst at the host company, placing an entry in their private logbook. In this trial, postings to a private area of the site's bulletin board were made accessible only with a password; meanwhile all enrolled students had free access to the group discussion board. Electronic feedback by the lecturer on the ongoing student discussion threads was used extensively. Weekly face to face meetings scheduled as classes during work placement were replaced by a chat session online, or a telephone conversation if the timing for the chat session was inconvenient.

At the end of a placement, the supervisor completed an electronic marking schedule on the quality of the student's involvement with the company, the student's contribution, attitude, communication skills, grooming and manner and this was returned to the UNITEC lecturer electronically. The requirement for the student to send a formal thank you to the supervisor was carried out using paper-based communication, but the lecturer's formal thank you to the host company contact was via email. The Head of School's formal letter of thanks to the director of the Host Company was also paper based.

Once their placement was over and they were back in the classroom, students prepared both oral and PowerPoint presentation material on their placement. Evaluation of the presentation took place using the presentation software, which collated results replacing the manual system previously used.

Stage three of the course involves training a user "in an industrial or company setting" using material prepared specifically for the user (trainee). Documents, lesson plans, examples of training manuals, and presentation materials were delivered to a secure electronic drop-box as "works in progress" for comment by the lecturer. Red line marking was used for comments on these documents, which were then returned electronically to the students through Blackboard. The lecturer used group email to set up a group of trainees within UNITEC. Students were then allocated an individual trainee, with whom all contact remained via voice mail or email until the day of the training session. These communications, covering time availability, the type of software, training requirements, commencing skill level, desired skill level etc were to be recorded in their electronic log, and the training documentation prepared. Student work posted in the electronic "dropbox" was continually monitored. Once trained, trainees filled in an electronic questionnaire giving feedback on the quality of the training received. Trainees received hard copy of any training manual, because in the past trainees indicated that they preferred hard copy to refer to later for practice.

Stage four of the course requires students to prepare a professionally presented Help Desk file. Some thought was given as to how much electronic communication was desirable and acceptable. Although this file was word-processed, and collated it was, and remains, a paper based product. The main reason for this being that the course is offered campus wide as an elective, and students from backgrounds other than computing often do not have the necessary skills to create an electronic helpdesk casebook.

8. CONCLUSIONS

This experiment was a success. Both the students and lecturer have had to learn to operate in a different way. Students are now more familiar with electronic communication and have embraced the opportunity to take on more responsibility. All students reported favourably on their placement. Scarce resources have been saved (e.g. Paper, petrol) as staff take on a less stressful way of placing and mentoring students working in a work based placement situation. UNITEC was seen as proactive and willing to prepare students for what is seen as the most important quality needed in a new recruit – communication (Victoria University 2000). Results from the quality control questionnaires have been positive. Industry contacts have been very supportive and have commented favourably (interestingly via snail mail).

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