Educational technology: A tonic for the unwell

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Students having to deal with chronic illness carry a burden and disadvantage unfamiliar to most staff and other students. The disability they bear may be invisible to others yet debilitating for them. A consequence for them may be additional difficulties in achieving their learning goals and an academic performance that does not reflect their potential. A fortunate by-product of advancements made with educational technology is that these students now often have the tools at their disposal to help them overcome some aspects of their disadvantage.

This paper explores this largely neglected dimension of higher education and in so doing tells the story of one student with a chronic illness. Her story serves to illustrate how staff may not realise the occurrence and extent of the disadvantage accruing to some of their students. It explains the role that educational technology can play in assisting such students manage the demands associated with their university studies and to achieve their academic endeavours.

Keywords: disability, educational technology, chronic illness

Introduction

Universities have developed policies and procedures in an attempt to provide for students with disabilities (see, for example, The University of Sydney, 1990 and Griffith University, n.d.). Such students can expect to find an office within their university that provides a point of contact and support for them. Equity considerations have led to endeavours to make provisions that will maximise the opportunities for students with disabilities to succeed with their studies. These provisions are no doubt appreciated, but unfortunately the context, nature and extent of disability that can be experienced by students is probably well beyond the capability of policy to accommodate.

The Disability Discrimination Act 1992 defines disability broadly – disabilities include the more obvious physical ones through to less obvious but nevertheless often debilitating health problems. The provision of ramps may allow those in wheelchairs to have access to classrooms, assistive technology and alternative print choices may help the visually impaired, but no such investment by universities can alleviate the circumstances of some students. The focus of this paper is on those students to whom their studies and participation in academic life are of central importance yet are disadvantaged by chronic illnesses that do not lend themselves to relief in obvious ways.

Bearing a chronic illness

The barriers faced by students with disabilities seem to be numerous (see, for example, Australian Flexible Learning Framework, 2003). For many with a chronic illness, unfortunately, their circumstances are not easily understood by most others. They are dependent on hopefully sympathetic staff to provide concessions, and that leads to a problem. For academic staff teaching students with a chronic illness it can be difficult to assess the impact of the illness on the student and what may be a reasonable concession to make. The same illness can affect different students in different ways and to different extents. There are no ‘rules of thumb’ and each decision is often made on a case-by-case basis. This can lead to great inconsistencies in the way chronically ill students may be received by the various staff they encounter.

The need to make allowances is well recognised (see, for example, Wishnietsky and Wishnietsky, 1996) however at a time of considerable workload pressures on staff and resource limitations on institutions, humanitarian considerations of this nature are difficult and expensive to support. In many instances, it involves additional work for academic staff and institutional administrators to make special arrangements. Staff will vary in their willingness to offer concessions. For instance, staff vary in their requirements for

substantiation of a disability – for some it will be sufficient to take a student's word who has registered a chronic illness that their academic work has been impeded due to say a severe and untimely migraine while others may demand some authentication that could be very difficult for the student to provide.

There are three forms of assistance that might be considered appropriate for chronically ill students:

- making allowances during formal examinations
- the provision of concessions associated with student submissions
- assistance for those occasions when students are unable to participate in timetabled classes.

Institutions can specify the support accommodations they are prepared to offer for the conduct of formal examinations for those students who register their disability with the institution. Depending on the nature of the illness, forms of support may include providing the opportunity for rest breaks during exams or perhaps extended time to complete them. Because this form of assistance is one that can be defined to an extent (eg an additional *x* minutes per hour of examination or part thereof will be allowed to students with the chronic illness *y*) it lends itself more than the others to a consistent approach across a university. As previously mentioned, it is often up to the individual academic to make case-by-case decisions on the second situation where students may seek concessions from staff to grant them additional time to complete assignments or other submission tasks or else the provision of alternative or supplementary work to compensate for assessments they may have been unable to undertake. Similarly, the third situation where students have been too unwell to attend classes is often one where the individual academic is called upon to make a judgement about the level of concession, if any, they will offer.

It is not difficult to surmise that students battling chronic ill health are more likely to leave their courses than their peers who do not have this additional burden. In a major study Debenham (1996) validates that the academic performance of those with long term health problems is put at risk by the additional factors they need to manage. For instance the stress commonly felt by students as they seek to complete assignments by set deadlines and as they prepare for and undertake examinations can have additional consequences for the student who is unwell. Corbell (2004, email message, 28 April) from Diabetes Australia points out that for students with a health problem, this stress can have an additional impact by aggravating the student's health condition. This aggravation will further disadvantage such students as the problems caused by their illnesses impact on their academic performance. Some students do seek to manage their disadvantage by requesting special consideration from their lecturers and their institutions. No doubt others are more reluctant to do so and find the habitual need to seek concessions either embarrassing, demeaning or else too draining to deal with and succumb to their condition by withdrawing from their courses.

An aspect of chronic illness that is particularly difficult for staff to measure is the disadvantage experienced by campus-based students whose illnesses cause them to miss classes. It is even more difficult to gauge the extent of the disadvantage these students have when they are unwell yet do manage to attend classes. On these occasions the student may find concentration especially difficult and the taking of comprehensive notes beyond them. They may be unable to do exercises in class that would normally be within their capability. Their condition may affect them such that they may be less inclined than normal to contribute to class discussions and group work. This will impact negatively on their learning progress and lead to their development being behind that of their peers. A further concern is that staff may be oblivious to this occurrence among their students.

Mitigation through technology

For some students with chronic ill health, one fortunate consequence of the widespread adoption of advanced information and communications technologies by universities is an alleviation of the above area of disadvantage. I will illustrate this by way of a case study of an Australian student, we will call her Amelia, who is living in student residences on-campus while undertaking her undergraduate studies. Amelia has Insulin Dependent Diabetes (Type 1), a lifetime affliction needing constant vigilance and careful management. This condition involves her blood sugar levels oscillating and causing effects including headache, listlessness, and poor concentration. It is common for students with such an affliction during their teenage and young adult years to have unstable health typically associated with lifestyle consequences and the physical changes that occur at this time of their lives. For Amelia, this instability

means that there are many days when she is feeling very poorly and unable to function as she might wish. By living in the student residences on the campus she is only a short walk away from where all her classes are held. She is a conscientious and committed student yet her condition is such that occasionally she is too unwell to attend some of her classes. However, when she is feeling unwell, it is more common for Amelia to go to her classes but not be able to function properly.

Just as Schuemer and Ommerborn (2001) found for disabled distance students, universities that have widely utilised advanced information and communications technologies have benefited those on-campus students with a chronic illness such as Amelia. At Amelia's university, lecture streaming is widely available and additionally many of her lecturers electronically file their PowerPoint slides, lecture notes, tutorial exercises, readings and other resources. When her lecturers' presentations are put on WebCT in this way she is able to view what has occurred in class even if she has not been there. For those times when she has been unwell but still managed to attend lectures she can readily revisit the presentation in her own time. Furthermore she has found that some of her lecturers now even *prefer* out-of-class student contact with them be made electronically rather than by personal visitation, and others construct a web-based discussion forum on topics associated with the curriculum.

All rooms in the student residences are networked to the university system enabling Amelia to access class items and other learning resources without leaving her room. She can do this anytime, a feature that relieves some of the additional stress arising when times of being unwell coincide with scheduled class times. Any needs she might have to seek additional time to complete work or for special arrangements to be made for her are appreciably diminished.

Libraries are focal points in universities for students searching reference items as they draft their assignments or else prepare for tutorials or examinations. University libraries have conventionally been the place where students look to find such information. However, with the development of facilitative online technologies, there has been a huge transformation in the way university libraries are used. A very large and growing number of journals and other traditionally print based resources are now online. For a student with a chronic illness such as Amelia, this development has been a great blessing. She no longer has to try to go to her university library's physical site as much and can access from her room those resources available both through the library site and more widely available through the internet. If she does need hard copy books that are in the library she can search the online catalogue, book them out, and ask a friend from her residences to collect those selected texts on her behalf.

Enhancing prospects for academic success

In conclusion, educational technology has provided some very positive consequences for many students who have to deal with the affliction of poor health. The case study presented in this paper is but one illustration – other students in different contexts no doubt are able to make use of additional e-learning tools and modalities that might be available to them. Information and communications technologies have generated flexible learning options that can unlock the rigidity of class timetables associated with both time and place. While it would be unrealistic to presume that all sense of alienation and disadvantage can be overcome through technology, nevertheless the enhanced access to learning resources provided through the use of technology can circumvent the need for many requests for concessions due to ill health that might otherwise be made. Importantly, for the chronically unwell student, this relieves some of the pressure, stress and depression that can be a consequence of the isolation they may feel from being unable to fully participate in scheduled classes or visit libraries. All this undoubtedly makes a substantial contribution to students with a chronic illness persisting with their studies and being able to successfully complete their courses. It would be commendable for all universities to reflect on how they might more broadly make available the resources and processes they have for effective access by students with disabilities as well as to seek out further innovative resource provision that might be helpful to these students. For students suffering chronic illnesses, adoption of advanced educational technologies by their universities can be the tonic relieving often otherwise seemingly insurmountable disadvantages.

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