



COVER SHEET

Carver, Tracey and Cockburn, Tina (2006) Making law more accessible: Designing collaborative learning environments for physically remote Generation Y students. In *Proceedings OLT 2006 Conference: Learning on the Move*, Brisbane, Australia.

Copyright 2006 (please consult author)

Accessed from <http://eprints.qut.edu.au>

Making law more accessible: Designing collaborative learning environments for physically remote Generation Y students

Tracey Carver & Tina Cockburn

Faculty of Law

Queensland University of Technology, AUSTRALIA

t.carver@qut.edu.au, t.cockburn@qut.edu.au

Abstract

In addition to an understanding of substantive law, the undergraduate law degree at Queensland University of Technology (QUT) aims to develop students' lifelong skills. In the unit 'Principles of Equity' the skill developed includes teamwork, in the context of legal letter writing. Given the increased technological mobility of Generation Y students, the presenters have developed and trialled a model that enables these skills to be learnt and practiced online. The result is a more flexible environment that not only ensures congruent learning experiences between internal and external (or physically remote) students, but provides a connected or engaged educational program to supplement existing teaching method. This paper outlines the above project, the pedagogy that influenced it, and its impact on student learning experiences. Some issues for the development of such learning innovations in the future are also addressed

Keywords

online learning; online skills development; online group work areas; student collaboration; teamwork; active learning; Generation Y students

Introduction

Advances in information and communication technologies have led to a shift in learning preferences between past and present student generations. This shift, whilst also shaped by the differing social, political and cultural context of each cohort's childhood and teenage years (McCrindle, 2003), has been accentuated by the variety and level of their exposure to information technology media (Oblinger & Oblinger, 2005; Oblinger, 2003; Frand, 2000; Mellow, 2005). The majority of today's undergraduate students are born after 1980 and are therefore commonly defined as Generation Y, Millennials, Echo Boomers (Raines, 2002), Digital Natives (Prensky, 2001a) or the Net Generation (Tapscott, 1998). Younger than the microcomputer, they are the first generation of students to have grown up with digital media and information technology in a developed prolific form. As Crittenden (2002, p. 5) affirms, 'as long as they [have] been alive, the world has been a connected place, and more than any preceding generation they have seized on the potential of networked media'.

Prensky (2001b, p. 1) suggests that, before they leave college, the average Generation Y student (in order of magnitude) has spent approximately:

over 10,000 hours playing videogames, [has sent and received] over 200,000 emails and instant messages ... [has spent] over 10,000 hours talking on digital cell phones; over 20,000 hours watching TV (a high percentage fast speed MTV) ... And, maybe, at the very most, 5,000 hours of book reading.

For Generation Y therefore, life is an interactive, rather than passive, experience and it is not unusual for such activities to occur simultaneously. Consequently, today's students are accustomed to multitasking and quickly switching from one activity to another with minimal adjustment time — resulting in a low boredom threshold, a short attention span and a preference for processing information in 'bite-sized chunks' or a concise, easy to use format (Prensky, 2001b; Mellow, 2005). Raised in a world of fast food and internet banking, they have 'zero tolerance for delays' (Frand, 2000, p. 22) and expect information and resources to be available when and where needed. This desire for convenience or flexibility is enhanced by the fact that many students of this generation balance their study and social life with part- or

full-time work (Manuel, 2002). As such, Generation Y are viewed as achievement driven and educationally as 'creative, communicative participants rather than ... passive, reception-only consumers' (Alexander, 2004, p. 29).

Hence, whilst the learning experiences of prior generations were dominated by texts and lectures, traditional didactic or transmission approaches to teaching and learning may not effectively engage students used to the constant connectivity provided by digital media, such as the internet and interactive gaming (Oblinger, 2003). Nevertheless, this is the teaching pedagogy or mode most often used to support distance learning for external, off-campus or physically remote students. Here learning experiences (even when accessed online, being primarily packaged in the form of lectures and structured readings) can often be characterised as inactive or 'rote, with a focus on linear teaching of knowledge' (McCombs & Vakili, 2005, p. 1586).

The challenge, therefore, is how to adopt the behaviours displayed by students in their personal lives for application in a learning context. Research shows that as student attitudes and aptitudes change, so too do their learning preferences, and suggests that in order to ensure a more effective learning environment for Generation Y students, our teaching and learning strategies must also adapt to meet these preferences (Costello, Lenholt & Stryker, 2004; Jonas-Dwyer & Pospisil, 2004; Frand, 2000; Oblinger & Oblinger, 2005). Indeed a study by Manuel (2002) into the effects of changing teaching materials and methods to better accommodate Generation Y preferences found a correlation between the changes and improved assessment performance.

This paper briefly examines the learning style preferences of Generation Y students. It then describes a model developed and implemented within the 'Principles of Equity' undergraduate unit at QUT's Faculty of Law to allow external students to form virtual teams to practice and learn the group work and letter writing skills necessary to complete an item of assessment online. By adopting a more collaborative, flexible and 'connected' or student-centred method, this strategy sought to improve the teaching and learning of physically remote students by focusing upon the educational attitudes and needs of Generation Y learners. Through a study of what today's students most value, we aimed to more effectively engage them, and as a result, positively influence their learning experience and, hence, their understanding and learning outcomes. Finally, student perceptions of their learning experience are considered, together with some issues for the future development of such learning innovations.

The learning preferences of Generation Y students

Oblinger (2003) identifies technology use, experimental activities, structure and teamwork, as the learning styles preferred by Generation Y. In terms of teaching and learning approach, and their situation within the social and cultural influences on Generation Y's formative years, these preferences can be characterised as follows.

Technology

As illustrated above, Generation Y learners are 'born' technology mobile or savvy and therefore assume a technologically enabled context in which to learn. Like all students, they engage better with materials anchored within their own experience and possess a greater potential for deeper learning and understanding when allowed to study on their own terms as to time, place and pace (Le Brun & Johnstone, 1994). Consequently, they relate to, and appreciate the flexibility and convenience of, an online teaching environment. Nevertheless, as Generation Y themselves illustrate through phrases like web 'surfing' and 'texting', it is the activity enabled rather than the mere use of technology per se that makes online learning engaging (Oblinger & Oblinger, 2005; Frand, 2000; Laurillard, 1995) by making it more interactive, social or student centred.

Experimental activities

Kinaesthetic and visual learning styles are most prevalent in Generation Y learners (Oblinger & Oblinger, 2005; Manuel, 2002). Generation Y, then, prefer 'active learning' or learning experiences that engage the student actively within the learning process and encourage them to construct their own learning by 'doing' rather than simply being told. This is not surprising given the multimedia environment in which they live and their penchant for video gaming — for 'the key to winning Nintendo is constant, persistent trial-and-error to discover the hidden doors' (Frاند, 2000, p. 17). According to Oblinger and Oblinger (2005) such a discovery approach to learning increases information retention and student participation by decreasing opportunities for boredom. However, whilst this method can be contrasted with the traditional transmission or auditory lectorial learning model (which treats students as passive information receptacles), this does not mean that lectures have no future for Generation Y students. According to Frاند (2000), a balance needs to be maintained between didactic and discovery (process over content) approaches.

Structure

According to Raines (2002) Generation Y have generally been raised by active, involved parents who have 'micromanaged their schedules' and 'shuttled them from one activity (karate club, ballet lessons, etc.) to the next ... leaving very little unstructured free time'. Consequently, today's students expect learning to be 'high touch' as well as 'high tech' and prefer a similarly scaffolded and structured teaching and learning environment. Therefore, although tasks may be done online, the presentation of learning materials in bite-sized chunks, or via a step-by-step approach assists to make them more manageable and readily processed (Le Brun & Johnstone, 1994), whilst feedback and monitoring by instructors fulfils an important supportive or motivational role (Costello, Lenholt, & Stryker, 2004; Oblinger & Oblinger, 2005).

Teamwork

Friendship and social relationships assume particular importance for Generation Y. They seek a sense of community — to be included — and use the mobility provided by current technologies to ensure that they are almost constantly connected, either in person or online (McCrindle, 2003; Frاند, 2000; Oblinger & Oblinger, 2005). Indeed, the proliferation of online gaming communities is indicative of Generation Y's openness to activities promoting social interaction and sharing. 'Look up any popular game on the Internet and you find robust communities of game players debating games, sharing game tips, or offering critiques' (Squire & Jenkins, 2003, p. 29).

Thus, Generation Y has been described as being more likely to make decisions based upon the collective experience of their peers, rather than their teachers (Manuel, 2002). They prefer group-based approaches to study that emphasise 'social interaction in the knowledge building process,' and gravitate towards activities promoting collaborative learning where:

Students as a cohort move together in learning by listening and engaging with each other, as well as the teacher ... [and] the discourse of learning is thus generated by all members ... rather than just by individual learning alone.

(Shield, Atweh, & Singh, 2005, pp. 608–609)

The benefits of such teaching and learning approaches are widely recognised (Johnson & Johnson, 1999a; 1999b; 2005; Le Brun & Johnstone, 1994; Wenger 1998a; 1998b). Not only do they improve student relationships, social skills and psychological development, but they also increase academic learning and retention, cognitive development and active engagement through discussion in which conflicting perceptions of the issue under consideration arise which, due to attempts to reconcile them, are then critiqued, resolved and reformulated by exposing and modifying inadequate reasoning and constructing new knowledge. Furthermore, given that the 'the half-life of information is [now] measured in months and years' (Frاند, 2000, p. 17) the teamwork, communication and leadership skills developed through collaborative learning, even when conducted online, might be more important to a student's workplace transition than mere knowledge accumulation.

Generation Y's desire for teamwork gives grounds for investigating how we might develop online resources to supplement existing didactic teaching and learning practices and increase the sense of community, structure and active or non-linear learning experienced by physically remote students.

The model implemented and its reflection of Generation Y preferences

Given the preferred learning styles and attributes of Generation Y learners and their implications for external students, it was considered appropriate to aim to improve their teaching and learning experience by incorporating an innovative teaching and learning model meeting these preferences within the *LWB240: Principles of Equity* unit at QUT's Faculty of Law.

In accordance with University policy, which requires courses to develop employment-related skills appropriate to the particular discipline, teamwork and legal letter writing skills theory and practice is incorporated at various stages in the LWB240 lecture and tutorial program. As part of this module students are required to write and submit, in teams of four, a client-focused letter of advice in relation to a specified legal scenario. Students studying the unit internally to the University are provided with the opportunity in tutorials, during Weeks 1, 2 and 5, to engage in preliminary teamwork exercises and work on their letter. Therefore, in order to preserve the integrity of the skills program, and to ensure like learning experiences, it was important that off-campus students be provided with a similar opportunity. Consequently, it has traditionally been compulsory for external students to attend an external attendance school in order to engage in this aspect of their skills development. However, given that attendance is often not possible for all external students, in order to increase the external program's flexibility, it was considered desirable to develop an optional alternative that, as best as possible, would simulate the learning and teaching experience of internal students for those electing not to attend the external attendance school. This was achieved through the development and implementation, in Semester 1 2006, of a model that enabled physically remote students to form and work together in virtual teams to practice and learn the teamwork and letter writing skills necessary to complete their assignment online.

After electing to engage in the online alternative via the unit's Online Learning and Teaching ('OLT') site, students allocated themselves to their preferred 'formal learning group' — choosing from among a list of pre-determined groups spanning many geographical areas (for example, Brisbane, Sunshine Coast, Gold Coast and 'Other'). They then worked together over three weeks to complete their client letter on which they were jointly assessed. As such, the model reflected, in a predominately virtual context, the key elements of Johnson and Johnson's collaborative learning theory (1999a; 1999b; 2005). From a main 'Online Team Letter Writing' web page, each team had access to their own private group work area which housed their 'Communication Space' — a shared electronic repository using asynchronous discussion forum technology to provide a learning space within which students could work, communicate and post documents on threaded discussions. Each group also had access to a 'Tasks' area, which specified the objectives for each week and stepped students through the tasks required to effectively develop a group dynamic and complete their assignment. Information was thus scaffolded and presented in bite-sized chunks, enabling guidance and easy comprehension, whilst aiming to avoid over simplification and also maintain a holistic approach that allowed students to see the purpose of the steps taken in the context of the assignment as a whole.

Instructions for using the group work areas, the technical requirements necessary for accessing the discussion forum provided and frequently asked questions, were posted on the OLT site in order to encourage students to resolve, prior to electing the online alternative, any technological issues associated with obtaining remote access to their groups from their own personal computers. The posting of such information, which contemplated in advance the technical issues likely to arise, addressed another Generation Y preference, namely their 24/7 mentality, or expectation that resources be available when and where they need them. Furthermore, research has shown that the benefits of collaborative learning discussed earlier may not be fully realised in virtual teams. Because trust and cohesion in geographically dispersed groups takes longer to develop, it presents barriers to learner interaction or 'sense of group' due to the greater potential for team members to be, or be perceived to be, anonymous or 'free-riding' (Poole & Zhang, 2005; Assudani, 2006; Orvis & Lassiter, 2006). Consequently, the online alternative attempted to overcome these barriers by providing a 'Shared Details' area for each team, where members could swap contact details and discuss their schedules and when, where and how (in addition to the 'Communication Space') they preferred to meet. The weekly tasks also included resources and preliminary exercises to build rapport and accountability and to encourage each team to set ground rules;

allocate tasks, deadlines and group roles; develop conflict and decision-making strategies; and share information as to their strengths and expectations. The creation of teams with geographically proximate members also facilitated their greater integration and socialisation by allowing for face-to-face meetings (Poole & Zhang, 2005; Assudani, 2006). In addition, teams were monitored in an attempt to ensure all members contributed and to enable the provision of online feedback, as necessary, via a noticeboard on the main web page. These interventions further fulfilled Generation Y's 'high touch' desire for structure or learning support.

Further, Generation Y needs were met by the fact that as the online teamwork activity was undertaken at a time and place more of a student's own choosing than at the Attendance School, it emphasised not only enhanced learning and the development (as discussed above) of authentic or marketable workplace skills relevant to Generation Y's achievement driven nature, but also flexible and self-directed learning. Accessed through the OLT site, and anticipating communication via email, discussion forums and chat rooms, the model aimed to use familiar technologies to allow students to engage in a more experimental activity that, had they been unable to attend Attendance School, would not have occurred (previously, non-attendance was met with a requirement to write an individual letter and reflect upon prior teamwork experiences). This is consistent with the Generation Y philosophy that technology use is only valued if it makes learning more active or student-centred. Furthermore, after submitting their assignment, groups could anonymously post their letters to an online forum for peer review. In addition to providing immediate feedback, which being from peers may be more highly valued, in Generation Y's fast-paced world it is considered important to enable such reflection and critical thinking in learning (Prensky, 2001b; Oblinger & Oblinger, 2005).

The model's most obvious feature, however, was its facilitation of the formulation of peer groups and study teams amongst external students through which cooperative learning may occur, both within and outside the parameters of the assignment. As external students are often isolated in their study (McCombs & Vakili, 2005), this is especially beneficial for those unable to attend the Attendance School, given that friendships and social interaction (in person or online) are important to Generation Y. In this way, by participating in the online alternative, external students were able to experience a sense of community or engagement, not only with their online peers, but also with the Faculty and their wider unit cohort (in the sense that identical learning experiences were assured).

Student perceptions and evaluation

In order to measure the effectiveness of the above online learning and teaching strategy developed and implemented in *LWB240: Principles of Equity* at QUT, an evaluation that adopted a qualitative approach using survey method was conducted to collect and analyse student perceptions of the nature and impact of the model on their learning environment and experience. After engaging in the online teamwork activity, students were asked to reflect on their participation and then complete (and submit online, prior to the peer review) a survey providing written comments in relation to the following six matters:

1. What I liked most about working in my team was ...
2. What I liked least about working in my team was ...
3. One thing I learned from the teamwork exercise in Equity was ...
4. What I liked about doing this exercise online was ...
5. What I disliked about doing this exercise online was ...
6. Would you prefer to use an instant messaging client (ICQ, MSN Messenger, Skype, Googletalk) to talk to your group?

Of the 116 external students enrolled in the unit in Semester 1 2006, 30 elected to engage in the online alternative. This response may be due, in part, to a necessity to go to Attendance School for other units or purposes. Surveys were completed by 26 of the students who participated. Through the use of this open questionnaire a rich description of the phenomenon under investigation was collected, from which several emergent themes were identified. These themes can be described by reference to the preferred learning styles and attributes of Generation Y learners.

Teamwork

Student responses indicated that they: welcomed the opportunity to work in teams as part of their learning experience; perceived, despite the research referred to in Poole and Zhang (2005), Assudani (2006) and Orvis and Lassiter (2006) above, that virtual teamwork was beneficial (both academically, socially and psychologically) and that it was possible to engage in effective teamwork online; and considered that working in teams online was an enjoyable learning experience. For example, responses to the questions “*what I liked most about working in my team was ...*” and “*one thing I learned from the teamwork exercise in Equity was ...*” included:

- That everyone has something to contribute and often a contribution from one member makes it easier for others in the group to provide an opinion or make a contribution.
- Observing the behaviour and contribution of others. It was great to see our knowledge grow in completing the task. ... We learnt from each other.
- The fact that we could bounce ideas off each other. If one of us forgot a particular issue, or did not know the relevant authority for a situation, there was always someone to answer that question.
- That my answers (and ... the research) was not as bad as I thought ... confidence!
- Everybody ... contributed ... and we encouraged and motivated each other.
- People can finish a task, and work well and efficiently with each other, without ever having to meet in person. If people are accommodating to other people's needs, things work.

Even those students who perceived that teamwork took longer than individual work acknowledged the benefits of teamwork:

- Teamwork creates a lot more work. Every idea or contribution has to be discussed and there's always a differing of opinion. It is a great relief when finally everybody is happy with the one piece of work. It feels as though you cannot move forward until everybody has the same level of understanding in terms of the academic content. So it is basically [a] learning and teaching process for everybody.

In particular, many responses expressed gratitude for the opportunity to interact and feel connected with their peers, especially given that there are very few opportunities for external students to do this, which often leads to feelings of isolation. Some also indicated that the anonymity of an online environment, rather than inhibiting friendship formation (Orvis & Lassiter, 2006), actually facilitated the development of peer relationships to a greater degree than face-to-face contact. Indeed, the benefit of collaborative learning for more introverted students has been recognised (Le Brun & Johnstone, 1994). For example, responses to the questions “*what I liked most about working in my team was ...*” and “*what I liked about doing this exercise online was ...*” included:

- Getting to know the other members - finding out whether you're on the right/wrong track with your thinking, not normally an option as an external unless you have some regular contact with others - possibility for future collaboration/help ...
- I have found three more contacts ... and I believe we will continue to share ... ideas.
- Being in a group made me feel less isolated from "fulltime uni students". I work as a family, litigation and property paralegal ... so my work is in essence my study, which in turn is also my life. But I still have twinges of isolation every now and then, especially the moments before submitting an assignment - things run through my head such as (a) did I forget something ... (c) I wish I had someone to share thoughts and opinions with. There is also the eternal conflict of "would they really do this in a real life situation" ... these are all the things that go through my "External student" head - and being in a real team for the first time ... in my LLB degree was an eye opener.
- To interact with other students (as an external student) online is less intimidating than at the external school face-to-face. I have found that in ... previous years, I have not actually met other students on a personal level, even though in the same classroom for a few hours. In this environment, I actually felt more connected with my team members than I would have in a Uni classroom! Not only that, but we have all expressed a wish to ... meet face-to-face one day.

Nevertheless, some of the students participating in the online exercise, whilst acknowledging that their circumstances were such that face-to-face interaction was not usually possible, expressed a desire for “some” face-to-face interaction, or at least a greater opportunity to share personal information and get to know their team members better. This is indicative of the literature on virtual teams, which claims that learner interaction, socialisation or ‘sense of group’ is enhanced by, at the least, an initial face-to-face meeting (Poole & Zhang, 2005). It is also illustrative of the position that whilst Generation Y students seek a sense of community, either in person or online, they do not want ‘all’ interactions to occur online (Oblinger & Oblinger, 2005). Interestingly, however, in this case the opinion was expressed despite the fact that: the students concerned elected the online alternative; and the model implemented, as discussed above, afforded these opportunities to students — although it seems that they were not always availed of. This was apparent from the following responses to “*what I liked least about working in my team was ...*” and “*what I disliked about doing this exercise online was ...*”:

- I don't really think that it is normal for people to work in teams in this capacity - ie, online when you have never met anyone. So, I don't think it really built 'team' skills in the same way as it would for the internal students.
- Not being able to be face-to-face with my team, we managed to overcome this very well though with the use of chat.
- There is insufficient time for the busy participants to understand the approach of other team members and their particular skills and concerns. Some opportunity to establish a rapport with other members would be useful. The problem could be partly alleviated by having a compulsory comprehensive details form which included such information as background, areas of interest, career goals, strengths and weaknesses.

In general, however, student responses were reflective of a desire for, and the benefits of, teamwork and learning approaches that promote peer or social interaction and connection. They also indicated that, in addition to teamwork, workplace skills (in the form of communication, leadership and letter writing), were also enhanced:

- The ... team completed this piece of assessment with a high standard of commitment, effort and professionalism ... The team conducted meetings in a very democratic way, everyone's opinions were considered and any disagreements resulted in a team vote.
- ... how to write a legal letter.
- There is more than one way to do something ... I learnt that I must pay particular attention to the recipient ... to ensure my communication is successful.

Technology

Many students acknowledged the value of the online alternative as implementing a flexible learning and teaching method that allowed them to work in their own time, at their own pace and on their own terms. This was indicated by responses to the question “*what I liked about doing this exercise online was ...*”:

- Flexibility and ability to fit things in around my work and life commitments.
- It allowed me to balance the subject with the other subjects I am doing in my own time.
- While I said it was difficult not meeting, I guess this was actually an advantage for my group - took the pressure off to HAVE to come and meet and I believe that we were more productive doing this assignment online with each other.
- It suited me not to have to try and meet a group in person and I'm at my computer most days anyway, so the online option was fantastic.
- The flexibility for our team to decide when the best times to meet were - the day, the time, etc. This enabled our meetings to be at designated times which suited us - no time taken up travelling to a venue, and the fact that we could fit in our meetings with our work and other commitments.

- It is very difficult at times to have all group members in the one place at the same time. Completing this activity online was a [more] convenient alternative than face-to-face meetings ... [It] ensured that we met regularly and in a comfortable environment i.e. at home, swapping information whilst eating dinner :-)

Some students commented that they would have preferred to work in 'real time' and that whilst the 'Communication Space' provided was a good place to start their group interactions, they found the time lags associated with this static discussion forum frustrating. Nevertheless, some groups who considered this to be a problem managed to overcome it by working with instant messaging services:

- Although the communication space was handy, the time lag meant that posts sometimes crossed over, which occasionally caused confusion. An instant conversation would have been preferable in my opinion as it behaves more like a face-to-face meeting. I do appreciate the provision of the communication space, however, because not every member of my team had the same instant messenger service, so it may have been difficult to "tee up". At least with the online forum as a definite possibility and/or a backup, we had a common ground with which to begin the project.
- The time lag of communicating in the online forum. I would have preferred using "real time" methods such as MSN, but I think we successfully managed to work around the time differences.
- We used msn messenger and it was great for meetings. We could discuss issues etc on the spot. I would recommend to future groups that it is the way to go ...

However, while noting the perceived benefits of working in real time, most students also recognised the downfall of such methods, in that they reduced flexibility by requiring everyone to be available for 'meetings' at the same time. Responses to the question, "*would you prefer to use an instant messaging client (ICQ, MSN Messenger, Skype, Googletalk) to talk to your group?*" therefore included:

- No. Getting people to be in the one chat room at the same time is just as difficult [as getting] people to meet face-to-face for a group meeting. I think if team members check their email regularly as ours did, the work gets communicated well.
- You all have to be available at the same time ... which is why we are externalists, as we cannot be available all at the same time - the present system worked fine to get us together and conduct the bulk of the exercise.

Furthermore, in view of their busy schedules and the various competing demands on their time, participating students generally appeared to have 'zero tolerance for delays' and expressed a desire to work as efficiently as possible. This was evident from responses to the questions "*what I liked least about working in my team was ...*" and "*what I disliked about doing this exercise online was ...*":

- It took an inordinate amount of time ...waiting for posts etc. It probably took a lot longer than the time that would be spent working on this in a tut[orial].
- Sometimes communication was difficult - sometimes writing online you don't communicate as well as when you are in person. Waiting for people to finish their sections is also difficult when your job is putting it together at the end - and so therefore you need to wait as well.
- The delay between sending, receiving and responding to emails can hamper efficiency.

Finally, although most students appeared to be 'technology savvy', some were unfamiliar with some of the technology used for their teamwork (such as instant messaging systems), or had difficulty navigating the OLT site. Others did not have the requisite computer capacity to support these technologies and, as also illustrated above, reflected upon their technical and physical limitations. For example, responses to the questions "*what I disliked about doing this exercise online was ...*" and "*would you prefer to use an instant messaging client (ICQ, MSN Messenger, Skype, Googletalk) to talk to your group?*" included:

- Technical glitches, lost data and time lost in submitting the same information on a number of occasions.
- All the fiddling about with OLT ... etc - not being particularly technologically advanced it was a bit of a pain going through so many links.

- I personally have never tried any of these instant messaging systems. At the beginning of this team exercise, one of the members suggested MSN Messenger, however I found that my PC was not capable of running it, and I do not see the necessity. I believe it is faster and more like a direct chat line, but I honestly did not find [that] the [forum provided] hindered our meetings in any way. I guess to someone who uses a direct chat line it may be very slow, but I found it very comfortable.
- Add[ing] comments to the Communication Space was also a bit tricky, but after it was worked out it was not too difficult.
- For a lot of us in rural areas, internet connections can be very slow and/or unreliable. In my case ... this added to the stress factor.

Structure

These last responses also reflect Generation Y's desire for 'point of need' learning structure and support. Although this need was anticipated and addressed by the Equity teaching team — through the scaffolding of information and the monitoring and posting of technical instructions and notices — as indicated by the student comments above, this did not ensure the ability to resolve 'all' technical and site navigation difficulties (particularly those 'technical glitches' external to the OLT site), or the information's timely utilisation by students. The obvious influence of such factors on a student's learning environment and experience will consequently ensure that further attention, where possible, is devoted to these aspects of the model in future years. In particular, the availability of online computing support, at a university level, will be more clearly drawn to the students' attention.

Further, reflecting Generation Y's need for contact and feedback from instructors, although they had elected to engage in the online alternative some students commented that they would have welcomed face-to-face contact with academics and that they had sought out learning support from instructors. Responses to the question "*what I disliked about doing this exercise online was ...*" included:

- Little face-to-face contact with teaching staff. However in my situation at the moment this was unavoidable.
- That questions we had in relation to the structure of the letter could not be answered "then and there". In a classroom situation, you can ask the lecturer/tutor about the structure required, whereas in an on-line situation, we need to send an email or call someone - which results in a delay - one team member emails Tina or Tracey, and then gets on-line the next night to advise of the result to the other team members.

These comments again also illustrate Generation Y's 'zero tolerance for delays' mentality.

Experimental activities

Student responses to the question, "*one thing I learned from the teamwork exercise in Equity was ...*", reflected Generation Y's preference for active learning. They also acknowledged the perceived benefits of such a 'hands on', or authentic, learning approach — particularly in relation to decreasing opportunities for boredom:

- There is more than one way to do something; especially writing a letter. I found that what I thought was writing for a lay person would be considered by someone else as too professional. And that could be simplified even further so that somebody with no experience with law could easily understand it.
- The exchange of ideas was very good and stimulated you to think about issues etc ...
- It's not as boring as I thought it would be! Sorry – I should maybe say it was a lot more interesting than I thought it would be.

Conclusion

By adopting a more collaborative, flexible and 'connected' or student-centred method, the online team letter writing exercise sought to improve the teaching and learning of physically remote students by focusing upon the educational attitudes and needs of Generation Y learners. Through a study of what today's students most value, we aimed to more effectively engage them, and as a result, positively influence their learning experience and hence their understanding and learning outcomes. The success of this strategy was reflected in the survey responses.

In particular, students perceived that the online exercise positively influenced their learning experience in that it facilitated teamwork. By working together, otherwise physically remote and isolated students were able to learn from each other, form a sense of community, and feel connected with their peers. Students also experienced the benefits of *experimental learning*. They enjoyed working together to produce the letter of advice and learnt more, not only about the relevant skills but also the substantive law, by actively engaging with the unit content. For example, one student commented: 'I learnt a lot about remedies [for] fiduciary breaches, and fiduciary obligations generally, and about perspectives other than my own on these issues'. By adapting *technology* that students were largely familiar with, the online model also enabled a more flexible learning environment. It allowed students to work at a time, pace and place more of their own choosing than at the Attendance School. Nevertheless, the use of technology by itself is not sufficient to provide a positive learning environment and experience: simply making materials available online and leaving students alone 'to get on with it' is not enough — Generation Y's need for *structure* must also be addressed. Here this occurred through the scaffolding and support provided by: academic monitoring and feedback; online information; and formative peer feedback. Students could also complete the task in stages, as information and exercises were presented in bite-sized chunks.

However, whilst the benefits of a 'Generation Y approach' to teaching and learning seem apparent, student cohorts are heterogeneous and therefore consist not only of Generation Y students, but also of other generational groups who may have different learning styles and preferences (Jonas-Dwyer & Pospisil, 2004; Oblinger, 2003). Additionally, it cannot be assumed that learning preferences within generations are homogenous (Manuel, 2002; Raines, 2002). Therefore, it remains necessary for instructors to adopt a blended teaching model that caters for a broad span of student ages and preferential learning styles. Indeed, some of the comments illustrated above, such as '[I am] not ... particularly technologically advanced' and 'I don't think that it is normal for people to work online in teams', may evidence this divergence in learning styles and characteristics. These comments might also support the suggestion that one's generational age might be less important in this context than their exposure to technology. Students from other generations with significant information technology exposure may, therefore, possess some Generation Y characteristics (Oblinger & Oblinger, 2005).

Consequently, whilst teachers should engage in an ongoing process of reflection and review of their learning and teaching methods to ensure a more effective learning environment for Generation Y students, the use of technology in this manner should still be: academically monitored; supplemented by traditional teaching and learning approaches; informed by pedagogy; and used to actively engage learners. Practical information technology support at a university or faculty level also remains fundamental to the successful implementation of any online innovations.

References

- Alexander, B. (2004). Going nomadic: Mobile learning in higher education. *Educause Review*, 39(5), 29–35.
- Assudani, R. H. (2006). Learning in a geographically dispersed context: Building a community of learning in dispersed space. In S. P. Ferris & S. H. Godar (Eds.), *Teaching and learning with virtual teams* (pp. 110–130). Hershey, PA: Information Science Publishing.
- Costello, B., Lenholt, R., & Stryker, J. (2004). Using Blackboard in library instruction: Addressing the learning styles of generations x and y. *The Journal of Academic Librarianship*, 30(6), 452–460.
- Crittenden, S. (2002). *Silicon daydreams: Digital pastimes of the wired generation* [Online]. Retrieved July 12, 2006, from <http://www.itc.virginia.edu/virginia.edu/fall02/daydreams/home.html>

- Frand, J. L. (2000). The information age mindset: Changes in students and implications for higher education. *Educause Review*, 35(5), 15–24.
- Johnson, D. W., & Johnson, R. T. (1999a). Making cooperative learning work. *Theory Into Practice*, 38(2), 67–73.
- Johnson, D. W., & Johnson, R. T. (1999b). What makes cooperative learning work. In D. Kluge, S. McGuire, D. Johnson, & R. Johnson (Eds.), *JALT applied materials: Cooperative learning* (pp. 26–36). Tokyo: Japan Association for Language Teaching.
- Johnson, D., & Johnson, R. (2005). Learning groups. In S. Wheelan (Ed.), *The handbook of group research and practice* (pp. 441–461). Thousand Oaks, CA: Sage Publications.
- Jonas-Dwyer, D., & Pospisil, R. (2004). *The millennial effect: Implications for academic development* [Online]. Retrieved May 23, 2006, from [http://herdsa2004.curtin.edu.my/Contributions/Refereed Papers.htm](http://herdsa2004.curtin.edu.my/Contributions/Refereed%20Papers.htm)
- Laurillard, D. (1995). Multimedia and the changing experience of the learner. *British Journal of Educational Technology*, 26(3), 179–189.
- Le Brun, M., & Johnstone, R. (1994). *The quiet revolution*. Sydney: Law Book Company.
- Manuel, K. (2002). Teaching information literacy to generation y. *Journal of Library Administration*, 36(1–2), 195–217.
- McCombs, B. L., & Vakili, D. (2005). A learner-centered framework for e-learning. *Teachers College Record*, 107(8), 1582–1600.
- McCrindle, M. (2003). Understanding Generation Y. *Principal Matters*, 28–31.
- Mellow, P. (2005). *The media generation: Maximise learning by getting mobile* [Online]. Retrieved July 19, 2006, from http://www.ascilite.org.au/conferences/brisbane05/blogs/proceedings/53_Mellow.pdf
- Oblinger, D., & Oblinger, J. (2005). Is it age or IT: First steps toward understanding the net generation. In D.G. Oblinger & J.L. Oblinger (Eds.), *Educating the net generation* (pp.2.1–2.20) [Online]. Retrieved May 23, 2006, from http://www.educause.edu/content.asp?page_id=5989&bchp=1
- Oblinger, D. (2003). Boomers gen-xers millennials: Understanding the new students. *Educause Review*, 38(4), 37–47.
- Orvis, K. L., & Lassiter, A. L. R. (2006). Computer-supported collaborative learning: The role of the instructor. In S. P. Ferris & S. H. Godar (Eds.), *Teaching and learning with virtual teams* (pp. 158–179). Hershey, PA: Information Science Publishing.
- Poole, M. S., & Zhang, H. (2005). Virtual teams. In S. Wheelan (Ed.), *The handbook of group research and practice* (pp. 363–384). Thousand Oaks, CA: Sage Publications.
- Prensky, M. (2001). Digital natives, digital immigrants, Part II [Online]. Retrieved May 26, 2006, from <http://www.marcprensky.com/writing/default.asp>
- Raines, C. (2002). *Managing millennials* [Online]. Retrieved May 23, 2006, from <http://www.generationsatwork.com/articles/millennials.htm>
- Shield, P., Atweh, B., & Singh, P. (2005). *Utilising synchronous web-mediated communications as a booster to sense of community in a hybrid on-campus/off-campus teaching and learning environment* [Online]. Retrieved July 19, 2006, from http://www.ascilite.org.au/conferences/brisbane05/blogs/proceedings/70_Shield.pdf
- Squire, K., & Jenkins, H. (2003). *Harnessing the power of games in education* [Online]. Retrieved July 25, 2006, from <http://www.iaete.org/insight/articles.cfm?&id=26>
- Tapscott, D. (1998). *Growing up digital: The rise of the net generation*. New York: McGraw-Hill.

Wenger, E. (1998a). *Communities of practice: Learning as a social system* [Online]. Retrieved August 24, 2006, from <http://www.ewenger.com/pub/index.htm>

Wenger, E. (1998b). *Communities of practice: Learning, meaning and identity*. Cambridge: Cambridge University Press.

Acknowledgments

Chris Prosser of the QUT Faculty of Law has provided the authors with very valuable information, technology support and assistance on an ongoing basis in relation to the implementation of this online teaching model and was primarily responsible for site development and maintenance. Without such support and assistance it would not have been possible to design, develop and implement this online strategy successfully.

Copyright © 2006 Tracey Carver & Tina Cockburn.

The author(s) assign to QUT and educational non-profit institutions a non-exclusive licence to use this document for personal use and in courses of instruction provided that the article is used in full and this copyright statement is reproduced. The author(s) also grant a non-exclusive licence to QUT to publish this document in full on the World Wide Web (prime sites and mirrors), publication to CD-ROM and in printed form within the OLT 2006 conference proceedings. Any other usage is prohibited without the express permission of the author(s).