

## **AN ANONYMOUS ASYNCHRONOUS WEB-BASED ROLE PLAY**

Mark A. Freeman and John M. Capper

University of Technology, Sydney, Australia.

### **ABSTRACT**

*New and previously impossible learning tasks are possible thanks to the advent of web based teaching technology. Learning tasks can be designed which ameliorate some disadvantages of face-to-face teaching whilst allowing students to engage deeply with the subject matter and with each other. An asynchronous role-play, integrated into a flexible learning sequence, was used to motivate students to take a deep approach to learning. That students were able to remain anonymous (impossible without the web) whilst playing their role reduced the effect of factors such as gender, ethnicity and language proficiency. A small cohort of graduate students made collection of extensive interview data a possibility, to supplement other evaluation data. The success of the role-play was evident in learning outcomes and student responses. The role play proved an enjoyable learning experience for those staff and students involved.*

### **1. INTRODUCTION**

The objective of this paper is to describe the learning and other outcomes of an anonymous asynchronous web based role play. In response to changes in the tertiary environment (eg. increasing competition, new technologies, busier student population), universities are increasingly pursuing flexible learning strategies. Technology enhanced teaching, in particular the World Wide Web, has become common in many tertiary courses. Bates [1996] notes that because many technologies are so new, “no-one has yet discovered all the interesting uses of the new technologies”. Its potential for increasing immersion in learning tasks whilst reducing the impact of extraneous factors on student learning is only recently being harnessed. This article looks at one particular learning task, an asynchronous anonymous online role play applied in a business course. It is impossible without the web to have such a learning task. This goes some of the way to answering Bates’ call for new interesting ways of using new technologies. As such, it will be of interest to educators in a wide range of disciplines who are keen to use the potential of technology to increase the depth and enjoyment of their students’ learning.

The paper is structured as follows. Section 2 reviews literature of relevance from education, especially regarding role plays and the use of information technology. Section 3 places the role play in its context. Sections 4 and 5 respectively outline the method of evaluation and results. Section 6 concludes with some general observations and directions for future application and research.

### **2. LITERATURE REVIEW**

Irrespective of the discipline, academics want their students to learn the discipline content in a meaningful way (Ramsden, 1992). Deep learning is more likely to happen when students take a deep approach to learning the material. Simply seeking to rote learn facts does little to change understanding. Seeking to understand the major principles of the discipline, with a view to applying them to new situations is more likely to result in that. This is the more desirable outcome.

Good grounding in the basics of one's own discipline alone does not make one a good teacher. Teaching is a skill which can be cultivated. This entails a willingness to surrender preconceptions which liken teaching to transmission, a desire to learn about oneself as a teacher and a commitment to develop new methods and skills to assist students in their learning (Ramsden, 1992; Laurillard, 1993). Trigwell and Prosser (1996) show that teachers that view teaching as changing students' conceptions rather than merely information transmission are more likely to take a student centred approach that results in quality learning outcomes. To maintain vision and potency in teaching requires practitioners to try new methods and thus to take risks. Technology offers new possibilities for this (Chickering and Ehrmann, 1997). The risk is reduced, however, when one builds on the results of others. Of course since assessment is a significant motivator of student activity, introducing a new learning task must be accompanied by adequate attention to assessment to highlight its importance to students (Ramsden, 1992).

## 2.1 ROLE PLAYS

Of many possible teaching strategies, the role play is perhaps one of the most deceptive. Often dismissed as uncontrollable, it can offer strong possibilities of deep student learning.

Thompson (1978) notes the under use of role plays in education, due to the perception of the role play as a 'high risk' strategy. This is misplaced. While a role play is risky if players do not respect each other, it also carries great potential for deep learning. Bloom (1956, 1964) argues that an effective role play can engage both the affective and cognitive domains. Its effects spill over into the 'active' (Sliepsevich, 1967) or 'volitional' (Westerhoff, 1976; Fowler, 1987) domain. The positive attribute of role plays, that they can be fun (Ladousse, 1987), may be a factor in both student learning and teacher anxiety. That this can be an obstacle to teachers suggests an over-dependence on engagement in the cognitive domain.

In their foundational work on role theory, Thomas and Biddle (1966) note the specialised way in which the term is used. Playing a role is not mere acting but the adoption of a behavioural repertoire or social position. In a role play that adoption is 'short and episodic' (Jones, 1988), and at the control of the participant, with guidance from experience, fellow 'players' and teachers. The learning is more focused and controlled by the participant than is the learning in the adoption of social roles.

Bollens and Marshall (1973, p.88) argue that a role play "sharpens skills of expression, observation and analysis [and] provides exposure to the complexity of real problems." A role play may also "lead to new assessments of . . . different positions" and "increase empathy for real participants in real life situations" (Bollens and Marshall, 1973, p.88; 90). Using students from several countries including the Middle East, Vincent and Shepherd (1998) observe the improved empathy students appear to have gained by having to pursue political agenda strongly opposed to their own. Thompson (1978, p. 10) specifically notes this increased empathy as happening in the context of people adopting the role of the opposite gender. Ladousse (1987, p. 7) notes the benefit of role plays for shy students.

Van Ments (1989) notes that students exposed through role plays to situations likely to be encountered in their professional lives are more likely to make the right decisions in similar cases in future. Teachers planning to use role play methods need to be clear on the goal/s to be achieved and the limitations inherent in the learning context, such as language, student preconceptions, space and time.

Chesler and Fox, (1966) list three essential steps for an effective role play:

- Preparation and instruction. Teacher and roles must be prepared and students must be adequately instructed in the acting out of their roles. Potential problems must be anticipated (Turner, 1992, p. 37).
- Action and discussion. The role play needs time and space to adequately happen. Participants need time to dissociate from their roles and begin the reflective discussion which follows. This should connect to the problem which was to be addressed (van Ments, 1989).

- Evaluation. Students should be encouraged to evaluate the impact of the role play on their learning and teachers need to evaluate the effect on student learning. Feedback should inform future usage (Ramsden, 1992).

## 2.2 NEW MEDIA IN EDUCATION: NEW POSSIBILITIES FOR LEARNING

Effective integration of new information technologies (IT) into a strategic learning plan can result in three possible benefits (Chong, 1997; Freeman, 1998). They can enhance student learning; prepare students for effective technology usage in their prospective workplace and/or enable staff to be more productive. Benefits do not flow from the technology itself, however. Angehrn and Nabeth (1997, p.275) note the need for “appropriate frameworks to guide educational professionals in exploiting advanced information and communication technologies”.

Ramsden (1992) emphasises the benefits of a student-centred approach, which maximises the benefits of multiple resources, whether or not these are electronic. McQuillan’s (1994) extensive study indicates that most benefits gained by introducing technology relate to changes in teachers’ conceptions of, and consequential changes in instructional strategy, rather than the introduced technology itself.

Much has been written on the role of IT and education. New journals have appeared to carry the material. There is both anecdotal and empirical evidence to suggest that use of IT can produce results at least as good as not using computers (Russell, 1997). Dixon, (1996) cites data from the University of Phoenix which points to positive student outcomes with on-line education. Nevertheless, Adler and Milne (1998) note the reluctance of some educators to adopt learner-centred approaches. Change ought to be driven by educational objectives not technological desires. Integration of various methods with educational goals may mean the need to rethink the assumed strategic learning plan, not just the means of delivery.

Part of the rethinking of strategy should entail the consideration of new learning tasks that become possible with new technologies. The role play is a suitable example. Vincent and Shepherd (1998) pioneered this new application by using teams of students researching and playing a significant political role in Middle East Politics. Initially teams pursue their player’s agenda vis-a-vis other players via email. Some team members may be in another country and frequently holding a strong and divergent view to the one they must help play. Without video conferencing technology, the students from different countries could not play out ‘summit talks’.

One of the drawbacks of a role play is the dimension of performance, which raises concern in participants and educators. Concerns raised in face-to-face role plays include fear, anxiety and guilt (Saunders, 1985). These are found in facilitators as well as students (van Ments, 1989). He suggests reminding participants of the importance of acting responsibly, especially where the feelings and opinions of others are involved. Whilst there are various techniques to reduce these resistances (Jones, 1988), anonymity diminishes them all, provided that the objective of the role play is clearly understood, and appropriate moderation and supervision are provided.

The web offers several possibilities for improvement over face-to-face role plays. First, if structured properly, participants can remain anonymous. This should overcome some of the concerns raised above with face-to-face performance. Second, asynchronicity allows students more time to reflect on the appropriate response for their role. This idea is supported by Connolly, Jessup and Valacich (1990) who found that in a computer mediated group, more and better ideas were generated where the group members were anonymous and had a critical member who challenged ideas. Similarly, Olaniran, Savage and Sorenson (1996) found that despite some student resistance to their initial experience, computer based groups produced significantly more ideas than face-to-face groups.

Anonymity, however can be a hazard to the development of academic community (Pence 1996, p93). Measures to reduce anonymous harassment for example can be implemented. In the context of an adult learning community, this hazard is minimised by shared objectives, clear expectations of circumspection and mutual respect. In some cases it may also be possible to trace harassing message senders through IP addresses. A warning to this effect may be an incentive to minimise this hazard.

### 3. CONTEXT

Twenty-four postgraduate students studying Securities Markets Regulation (SMR) 75% were studying part time and 58% were male. Since such a high proportion of students had a non English speaking background (71%), the benefit of allowing time through asynchronicity for research about Australian securities markets was expected. In addition, it was expected that such students would benefit from time for reflection and formulation of argument in an asynchronous role play. By keeping the identity of the student playing each role anonymous, issues of gender and cultural expectations evident in an embodied encounter were minimised, heightening student engagement with the learning task itself. Although 81% of students had access to computing facilities external to the university, only 65% of these were connected to the web.

The students were presented with two conflicting paradigms – finance and law. The tension was heightened by the participation of a lecturer from each field in each of the three face-to-face weekend schools. The contrasting views of securities markets regulation were pursued in the intervening monthly periods between face-to-face classes with the aid of an integrated, off-the-shelf, web based teaching program which provides for private and public interaction as well as coursework. Further details about how such programs can aid mass undergraduate teaching and learning are provided in Freeman (1997). 1998 was its first use for anonymous asynchronous role plays. The idea to add anonymity and asynchronicity came after a visit to the video-conferenced summit talks undertaken by students in the Middle East politics role play (Vincent and Shepherd, 1998).

A flexible assessment package attempted to integrate the course learning objectives and learning resources. These included team based class presentations (some as role plays), web debates and quizzes. The other 50% comprised involving individual pre- and post-role play concept maps and a final examination case study. The role play was optional. Students were specifically encouraged to adopt different perspectives from their own through three learning tasks, namely the web debates, the face-to-face presentations and the anonymous asynchronous online role play.

The web role play was conducted after the final weekend school. Van Ments (1989, p.165) notes the need for a thorough understanding of the subject to create an effective role play – hence the position of the role play at the end of the course. Consistent with Chesler and Fox (1966), precise instructions were handed out and discussed just before closure of the face-to-face session. As they left the session, students were given the role of a major figure involved in the process of regulating Australian securities markets with strict instructions for anonymity.

Students researched the role they were to play and posted this to the website. Then they responded in role (eg. The Australian Treasurer Peter Costello) to a series of events (eg. currency crises), announced through ‘press releases’ to the group. Press releases were developed jointly by the two academics to ensure realistic and relevant dilemmas allowing all roles some chance of participating. That the role play portrayed possible real world events is seen in that some have since happened. Players could respond through the ‘public’ forum, or could approach each other privately in role through the web discussion. Students were assessed on their private and public postings and their role profile. Roles were kept anonymous until a ‘coming out’ at the final examination case study. To adequately reward participation in the role play, 15% was allocated to the role play (5% each to the role profile, quantity and quality of input) and 15% to the concept maps (5% pre- and 10% post-role play).

### 4. METHOD

Alexander (1998) notes the need for a holistic approach to evaluation, which takes into account the concerns of and costs and benefits to a range of stakeholders. It is also important to utilise a variety of methods to ‘triangulate’ and avoid the distortions evident in any one form of evaluation used in isolation (McKenzie, 1998). For example, details on student learning need to be sought as well as student reactions. Available funding allowed the role play to be thoroughly evaluated. Data gathering methods used included student and staff surveys, interviews of all class members (whether role play participants or not), analysis of the threaded discussions and

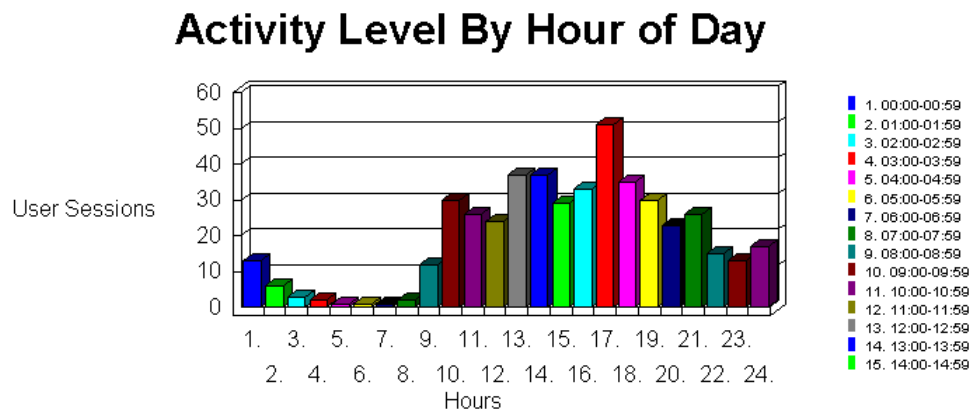
private email for each role, a reflective diary kept by the education researcher involved, and attention to unsolicited student comments. The surveys and interviews, along with student assessment results, form the basis for what follows.

## 5. RESULTS

### 5.1 STUDENT EFFECTS

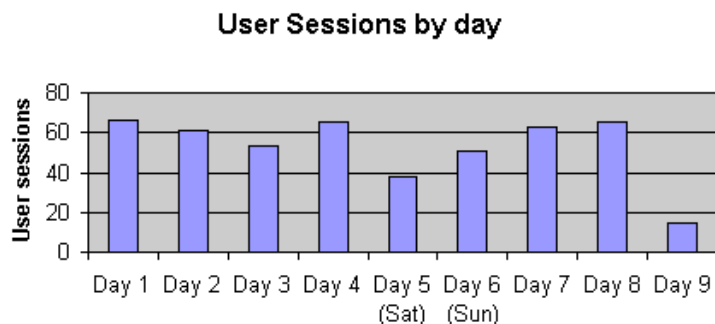
The student results are discussed in three ways. First, we describe student activity and effort in the role play. These indicate student interest and to some extent their immersion in the innovative learning task. Second we compare student performance in the subject with previous years. Third, we highlight some very rich feedback gained from the interviews which demonstrate student reactions and learning.

Whilst it had been expected that students would log in to the role play regularly, the number of logins was surprising, as Figure 1 shows. Many students logged in not just once or twice per day, but a number of times in an hour, to read, respond and respond again. There were short periods of almost synchronous debate when a large number of students were all logged on together. The busiest times of day were mid and late afternoon with 30 to 50 logins per hour. The number was between 10 and 20 per hour from 10pm until 1am. Half of all logins were outside of 9am – 5pm business hours. This is significant indication of student commitment, with 75% of the class being part-time.



**Figure 1. Activity Level by Hour of the Day**

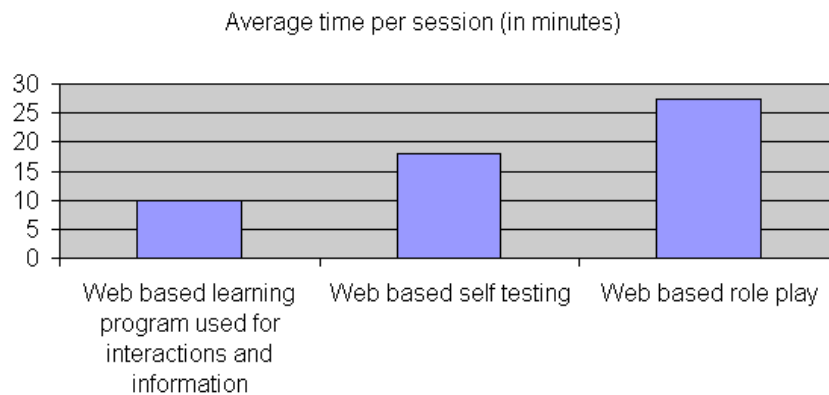
The number of user sessions, averaged on a daily basis, is shown by Figure 2. The rate of both public postings (from one role character, visible to all) and private postings (from one character to another alone) increased significantly through the period – a function of both the pressure of deadlines and the growing interest in the many nuances of debate which developed. The average user session increased from 15 minutes at the beginning of the role play to nearly 30 minutes by its conclusion.



**Figure 2. User Sessions Through the Role Play**

Note: On the final day the debate was only open until midday

The average time spent using the medium for different web based learning tasks is shown below. This clearly shows that students were more deeply immersed in the web based role play. This is illustrated in Figure 3.



**Figure 3. Average Session Time for Different Web Based Learning Tasks**

A comparison of students' performance with the previous year yielded no significant difference despite the inclusion of the role play in 1998. This was evident also in student performance in the final exam case study. Neither was there a significant improvement in the post-role play concepts maps.

The richest results are evident from the interviews. The role play aroused considerable interest amongst the course participants as well as their families and colleagues. Two non-participating students, though not having access to computers, had a participating colleague fax them the postings so that they could follow the role play. All non-participants regretted their non-involvement, and would have participated had they undertaken the course again. All students but one (an overseas student with neither own computer nor web access) said they would recommend participation to future students.

Indicators of deep learning were found in the interviews. Students came to understand the complex pressures at work on regulators and market participants. They had to deal with pressures of time and public reaction as well as learning to represent complex organisations in unfamiliar scenarios. They achieved a deeper understanding of their own views and those of others, as well as the limitations of the two main paradigms in practical contexts. It formed an enjoyable means of revising for the final case study (van Ments, 1989). The following excerpts from post course interviews indicate the links that students made between the classroom and practice and show the commitment students made to role play participation:

"Before [the role play] I focused on the finance side . . . how the markets work . . . but I didn't really see the regulation side. Now I can see the regulators, what they are going through, and the way it links the whole course (Master of Business) together." (Overseas male). {12}

One non-participant who nonetheless observed the role play commented that it "brought it all together, in a novel way" {23}, noting it was "very different to my normal way of learning, it wasn't memorising".

One overseas born female commented: "I have been here 5 years and never watched the [federal] budget with so much interest . . . I just sat down and I knew the budget just like that" {6}

The impact was underscored by one overseas participant, who said "I was very fortunate to study Australia's regulation – it may contribute to my own country's regulation in the future." {7}

The anticipated comment regarding student enjoyment of the learning task was in evidence. One Australian male commented: "It was a lot of fun going in there and seeing responses to something you had put on there. I found it good." {5}

That the anonymity helped with student accessibility was borne out in the interviews. As an Asian male observed: "I found it quite fun to act out the roles because no one knows who you are and so you get to say what you want." {12} An Asian female echoed this: "It is easier to criticise other players without having to worry if they are your friends."

Similarly, anonymity contributed to learning: "It was a good thing for me [to be] anonymous . . . if I use my name everybody knows me and my thinking. [Anonymity allowed me] to learn by trying to do what a [central banker] normally does." (Overseas male){1} The immersion in the learning task was exemplified even more starkly by another overseas male participant who said: "The anonymity didn't matter to me, because in my mind I was (role name)". {13}

Whilst confidentiality was maintained by all participants, one noted of others that "The way they were speaking gave them away." However he went on to add that "It would have had factions forming and it would not have worked as well . . . personal attacks and private assassinations may have occurred if it wasn't anonymous." {24} Even though some participants thought they had guessed who was playing certain roles, "final revelation of the players behind the roles held some surprises, indicating that some stereotypes had been challenged." (Academic coordinator).

The depth of commitment to the learning process was indicated by an overseas male who said: "It [the role play] is quite fun. The problem is I have to work and . . . my answering the role play is usually at 4.00 am. I borrowed a friend's Internet [access] and [brought it to my] home and used it for a few days." {12} An Australian male, not previously a user of the Internet said: "[The role play] really increased my knowledge of Internet and I feel very confident about that." {6} Another said that he had changed his approach to resources, opening up his horizons to electronic means and growing in familiarity with their use and power.{2} "[The role play] has made me aware that if ever I need some information on something and that's one place I can look and yet I didn't realise that all this sort of information would be already on the Internet." (Australian male).{5}

Additional support for the role play as a learning task arose in the end of course survey. Freehand responses showed considerable depth of learning, with students commenting that they better understood the dynamics of the securities market. One in three respondents mentioned web resources as most helping them learn securities markets regulation.

Of 20 learning resources or learning tasks that students were asked to rate in the survey, students rated the role play and preparation of the role profile as the two most valuable. This is shown in Table 1.

**Table 1: Student rating of learning resources or learning tasks. (n=21)**

	Useless = 1	Not very Useful = 2	Useful = 3	Very Useful = 4	Extremely Useful = 5	Average
Announcements on <i>TopClass</i>	4.8%	4.8%	47.6%	28.6%	14.3%	3.4
Lecturer responses in SMR discussions on <i>TopClass</i>	0%	9.5%	61.9%	14.3%	14.3%	3.3
Other students' questions and answers in SMR discussions on <i>TopClass</i>	4.8%	4.8%	76.2%	9.5%	4.8%	3.0
Private sending and receiving <i>TopClass</i> messages to discuss the case study with my team	4.8%	14.3%	52.4%	19.0%	9.5%	3.1
Use of <i>TopClass</i> for the online debate (n=20)	0%	10%	50%	30%	10%	3.4
Links and references in the coursework folder on <i>TopClass</i>	0%	23.8%	28.6%	28.6%	19.0%	3.4
Tips in <i>TopClass</i>	0%	14.3%	47.6%	23.8%	14.3%	3.4
<i>PowerPoint</i> slides available in <i>TopClass</i>	4.8%	14.3%	42.9%	19.0%	14.3%	3.3
References for each topic available on <i>TopClass</i>	9.5%	14.3%	38.1%	19.0%	19.0%	3.2
Preparation of the draft concept map (if not done, leave blank)	14.3%	9.5%	33.3%	33.3%	9.5%	3.1
Preparation of the final concept map	9.5%	9.5%	47.6%	23.8%	9.5%	3.1
Preparation of the role profile (if not involved, leave blank) (n=18)	5.6%	5.6%	33.3%	44.4%	11.1%	3.5
Participation in the role play (if not involved, leave blank) (n=16)	6.3%	12.5%	25.0%	37.5%	18.8%	3.5
Group work with other students (n=18)	0%	5.6%	66.7%	22.2%	5.6%	3.3
Browsing sites about securities markets or regulation on the internet (n=19)	10.5%	10.5%	36.8%	36.8%	5.3%	3.2
Printed information about the securities market (eg newspapers) (n=20)	0%	10.0%	60.0%	20.0%	10.0%	3.3
Doing the team presentation (n=20)	0%	5.0%	55.0%	35.0%	5.0%	3.4
Individual discussions with other students (n=20)	0%	15.0%	55.0%	25.0%	5.0%	3.2
Individual discussion with the lecturers (on the phone or in person) (n=20)	5.0%	5.0%	50.0%	25.0%	15.0%	3.4
Preparing for the final application case study (n=19)	0%	21.1%	47.4%	26.3%	5.3%	3.2

Note: Rounding may mean some rows do not add to exactly 100.0%

## 5.2 STAFF EFFECTS

The main burden on staff from integrating the role play amounted to time. Considerable time was spent undertaking research on the method, designing tight instructions, formulating appropriate current press releases and monitoring the role play responses. The only other burden was the extra stress from the risk of failure of either the technology or the role play scenarios themselves. As it became evident that students were immersing themselves in the task, having fun and learning an alternative perspective and gaining a better understanding of the process of securities markets regulation, the stress was substantially ameliorated. The heavy investment in design and learning curve will yield benefits in the future to existing staff and other colleagues.



### 5.3 OTHER STAKEHOLDER EFFECTS

Colleagues in other faculties and other disciplines, including science, engineering, law, education and humanities, have indicated their interest in utilising this innovative learning task both on their own as well as in collaborative projects.

## 6. CONCLUSION

This paper describes the outcomes of an anonymous asynchronous web based role play with post graduate business students. Without the web, such a learning task is simply not possible. Consistent with Chong's (1997) expected benefits of integrating IT into the strategic learning plan, the interviews, surveys and discussion analysis indicate that the asynchronous web based role play enhanced student learning and helped prepare students for effective technology usage in their prospective workplace. The anonymity appeared to allow students to challenge their own stereotypic views of gender, race, and age as well as their views about the content of securities markets regulation.

The concept of an anonymous asynchronous role play is proving to be of interest to academics in fields as diverse as engineering, business and theology, and should find application amongst trainers in many disciplines. Its use in a cross-disciplinary context shows something of its diversity. The possibility of connecting the learning tasks with contemporary community issues and events provides great opportunities for creative teachers at all levels to contextualise their material. With the growing penetration of the web into daily life, it may be that anonymous role plays can serve community purposes such as neighbourhood conciliation and public policy debate. The possibilities of the web allow these benefits to be shared without regard for traditional barriers of culture and distance. The challenge which lies ahead is for educational designers to maintain positive standards when anonymity is used so that the integrity of participants is respected.

Future related research directions include the evaluation of its effectiveness in these other domains as well as a deeper consideration of equity issues and students approaches to learning.

## 7. ACKNOWLEDGMENTS

The authors wish to acknowledge the contributions of Andrew Vincent, Shirley Alexander, Jo McKenzie, James Sawers, Michael Adams and Robert Rintoul. All errors remain the authors. Funds for the development, evaluation and research arose from a 1997 Australian Award for University Teaching from the national government. This is gratefully acknowledged.

## 8. REFERENCES

- Adler R.W., and Milne M.J., (1998) "Identifying and overcoming obstacles to learner-centred approaches in tertiary accounting education: A Field Study of Accounting Educators' Perceptions", Paper presented at AAANZ Annual Conference, Adelaide.
- Angehrn, A., and Nabeth, T., (1997) "Leveraging emerging technologies in management education: research and experiences", *European Management Journal*, 15 275-85.
- Biddle, B.J., and Thomas, E.J., (1966) "Role Theory: concepts and research", New York, John Wiley & Sons.
- Bloom, B.S.(Ed), Engelhart, M.D., Furst, E.J., Hill, W.H., and Krathwohl, D.R., (1956) "Taxonomy of Educational Objectives: the classification of educational goals. Handbook 1 - Cognitive Domain", London, Longmans.
- Bollens, J.C., and Marshall, D.R., (1973) "A guide to participation: fieldwork, roleplaying cases and other forms", Englewood Cliffs, NJ, Prentice-Hall.
- Chesler, M., and Fox, R., (1966) "Role-Playing Methods in the Classroom", Chicago, Science Research Associates.
- Chickering, A.W., and Ehrmann, S.C., (1997) "Implementing the seven principles: technology as lever", <http://www.aahe.org/technology/ehrmann.htm>.
- Chong, V.K., (1997) "Student Performance and Computer Usage: A Synthesis of Two Different Perspectives", *Accounting Research Journal*, 10 (1), 90-97.

- Connolly, T., Jessup, L.M., and Valacich, J.S., (1990) "Effects of anonymity and evaluative tone on idea generation in computer-mediated groups", *Management Science*, 36 (6), 689-703.
- Dixon, P., (1996) "Virtual College", Princeton, NJ, Petersons.
- Fowler, J.W., (1987) "Faith Development and Pastoral Care", Philadelphia, Fortress Press.
- Freeman, M.A., (1997) "Flexibility in access, interaction and assessment: the case for web based conferencing and teaching programs", *Australian Journal of Educational Technology*, 13 (1), 23-39. <http://cleo.murdoch.edu.au/gen/aset/ajet/ajet13/wi97p23.html>.
- Freeman, M.A., (1998) "Educational innovation: Hype, Heresies and Hopes", Paper presented at AAANZ Annual Conference, Adelaide,.
- Jones, K., (1988) "Interactive Learning Events: a guide for facilitators", London, Kogan Page.
- Krathwohl, D.R., Bloom, B.S., and Masia, B.B., (1964) "Taxonomy of Educational Objectives: the classification of educational goals. Handbook 2 - Affective Domain", London, England, Longmans.
- Krathwohl, D.R., (1994) "Reflections on the taxonomy: it's past, present, and future", in L.W. Anderson, L.A. Sosniak and K.J. Rehage (Eds); *Bloom's Taxonomy: a forty-year retrospective. Ninety-third Yearbook of the National Society for the Study of Education*", Chicago, Illinois, The University of Chicago Press 181-202.
- Ladousse, G.P., (1987) "Role Play", Oxford, Oxford University Press.
- Laurillard, D., (1993) "Rethinking University Teaching: A Framework for Effective Use of Educational Technology", London, Routledge.
- McKenzie, J., (1998) "Evaluating and documenting flexible learning projects", Working paper, University of Technology, Sydney.
- McQuillan, P., (1994) "Computers and pedagogy: the invisible presence", *Journal of Curriculum Studies*, 26 (6), 631-653.
- Olaniran, B.A., Savage, G.T., and Sorenson, R.L., (1996) "Experimental and Experiential Approaches to Teaching Face-to-Face and Computer-Mediated Group Discussion", *Communication Education*, 45 (3), 244-59.
- Pence, H.E., (1996) "What is the Role of Lecture in High-Tech Education?", *Journal of Educational Technology Systems*, 25 (2), 91-96.
- Ramsden, P., (1992) "Learning to teach in higher education", London, Routledge.
- Russell, T.L., (1997) "The 'No Significant Difference' Phenomenon", <http://tenb.nbcc.nb.ca/phenom/>.
- Sliepsevich, E.M., (1967) "Health Education: a conceptual approach to curriculum design", St. Paul, MN, 3M Company Educational Services.
- Thompson, J.F., (1978) "Using Roleplaying in the Classroom", Bloomington, IN, Phi Delta Kappa Educational Foundation.
- Trigwell, K. and Prosser, M., (1996) "Changing approaches to teaching: A relational perspective", *Studies in Higher Education*, 21 275-284.
- Turner, D., (1992) "Roleplays: a sourcebook of activities for trainers", London, England, Kogan Page.
- Van Ments, M., (1989) "The effective use of role play: a handbook for teachers and trainers - Revised Edition", London, Kogan Page.
- Vincent, A., and Shepherd, J., (1998) "Teaching Middle East Politics by Interactive Computer Simulation", *Journal for Instructional Multimedia in Education*,.
- Westerhoff, J.H., (1976) "Will our children have faith?", New York.

© Mark A. Freeman and John M. Capper

**The author(s) assign to ASCILITE and educational and 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 ASCILITE to publish this document in full on the World Wide Web (prime sites and mirrors) and in printed form within the ASCILITE98 Conference Proceedings. Any other usage is prohibited without the express permission of the author(s).**