

2000

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Publication details

Fisher, K, Phelps, R & Ellis, A 2000, 'Group processes online: teaching collaboration through collaborative processes', *Educational Technology & Society*, vol. 3, no. 3. Special issue on 'On-line collaborative learning environments'.

Published version available from: <http://www.ifets.info/others/>

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Group Processes Online: Teaching collaboration through collaborative processes

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ABSTRACT

While many subject areas lend themselves well to off-campus distance education delivery, there have always been some which do not necessarily adapt well to non face-to-face provision, in particular, those subjects where interpersonal interaction is integral. This paper discusses a course teaching group processes which had been previously offered on- and off-campus, and its subsequent redesign for online delivery. The online design of the unit is shown to have enabled many of the on-campus, face-to-face features integral to the teaching of this subject matter to be incorporated for online students. The experience provided an excellent opportunity for students to learn collaboratively and to analyse and reflect upon group processes in an online environment and the applicability of traditional group theory to online experience. Despite a number of major challenges and frustrations encountered in delivering this course online, the students who remained in the course learnt a great deal about group processes in the online environment and developed a sophisticated understanding of the interactive potentials and

issues faced in online collaboration.

Keywords: Group processes, Interaction, Online learning, Group theory

Introduction and Context

Traditional paper-based distance education approaches are now firmly established within many tertiary education institutions and are widely accepted as a valid form of educational delivery. While many subject areas lend themselves well to distance delivery, there have always been some which did not necessarily adapt well to non face-to-face provision, in particular, those subjects where interpersonal interaction was integral (subjects such as counselling etc). Online delivery offers new possibilities for teaching and learning in these areas through the added dimension of collaboration and interaction. A new educational literature focused on online teaching and learning is emerging as greater numbers of educational institutions take up the option to deliver their courses in the online environment (e.g. see McNaught et al., 1999; Palloff and Pratt, 1999; Duchastel, 1997; Abrami and Bures, 1996; Collins and Berge, 1996; Sherry, 1995).

This paper describes the design of a course for teaching group processes at an undergraduate level. This course is offered at Southern Cross University and was developed as part of a major initiative by the School of Social and Workplace Development (SaWD) to offer its full undergraduate Bachelor of Social Science (BSocSc) degree online (Ellis & Phelps, 1999; McMurray & Dunlop, 1999). This degree has majors in such areas as community development, counselling and mediation, human relations and communication, human resource development, politics, social welfare and sociology. The BSocSc has an enrolment of approximately 1400 with 1100 students enrolled externally.

The SaWD Online Project, as it became known, is in many respects philosophically and ideologically different from online initiatives at many other institutions in that our definition of 'online development' required full re-design of units, not just 'web mounting' or 'web-enhancing' existing paper-based external materials (Ellis & Phelps, 1999). It represents more than a technological enhancement of teaching but instead a student-centred, collaborative learning approach as advocated by educators in the constructivist and active learning traditions (Palloff and Pratt, 1999; Brooks and Brooks, 1993).

Group Processes is a compulsory unit in the BSocSc degree and has been offered successfully both internally (on-campus) and off-campus. In this paper we will discuss the enhanced opportunities which online teaching approaches provide for collaborative learning in a subject area best taught through interactive experiences. We will briefly touch on the design of the course and a comparison between on-campus, off-campus and online experiences. The paper will focus subsequently on what the students and teacher discovered about collaborative learning online and about group processes in particular, through group interactions and reflections on these group situations, and comparing their online group experiences with those in face-to-face groups. Finally, the paper will analyse the challenges encountered in delivery of the course online and the learning about group processes that resulted.

Designing Group Processes for the Online Environment

Group Processes has been offered successfully for five years both internally (on-campus) and externally (off-campus). For internal students the unit is taught experientially. Activities are designed each week to give students experience in observing group processes within the tutorial; experience in facilitating and leading activities and experience in particular group interactions grounded in established group theories. All assessments are based on their experiences and learning about group processes in their tutorial groups.

External students, on the other hand, have a very different learning experience from those studying internally. They are provided with a book of readings and a study guide, but it is not possible to provide interactive group experiences. Instead students apply theoretical concepts in their workplaces or communities as opportunities to relate theory to practice. Many external students have limited opportunity to experiment with different group processes, such as facilitation, decision making and conflict resolution, a situation that is not entirely satisfactory from our view as adult educators.

The SaWD Online project presented a real opportunity to improve the collaborative possibilities for students studying off-campus. *Group Processes* was thus selected as one of the early subjects for online development, and was to be trialed with a maximum enrolment of twenty students.

While many of the other lecturers developing online materials for the BSocSc designed primarily from their off-campus, print-based course, the developers of *Group Processes* Online gained inspiration for the unit design primarily from the on-campus course, with stronger emphasis on process than content. In keeping with our preference for constructivist, experiential learning, the students' experience of being part of the enrolled group informs their learning and forms the basis of their assessment.

As it was assumed that there would be an enrolment of around twenty students for the initial pilot, we designed a program of activities that was a mixture of small group (maximum of five participants), large group, synchronous (i.e. 'real time') and asynchronous activities, with and without the participation of the tutor. Clear expectations of student participation and tutor involvement were made at the outset. For instance, there was a strong emphasis on peer collaboration and teamwork, made possible by the learning shell used (Lotus Learning Space), with a number of activities being student directed. For each of the activities students were allocated a role to assist the group in its process, roles such as discussion leader, facilitator, reporter, observer and participant. Assessment tasks were based on student experiences and included:

- an *observation report*, in which they were to observe interactions in one of the activities and comment on their observations in the light of the theory of Group Processes;
- a *reflective journal*, in which students recorded reflections of their experiences and which aimed to help them heighten their observational skills, process information, explore their feelings, assess their progress, evaluate their performance, improve communication, and enhance their writing skills and fluency; and
- an *essay* which required students to evaluate the effectiveness of the online group of which they had been a part, drawing on theories of group effectiveness to substantiate their assessment.

Much of the theoretical content designed for the course was written from the perspective of face-to-face groups in workplaces and communities. We saw the online development

of *Group Processes* as an opportunity to observe the extent to which theories about group behaviour which are based on research into face-to-face groups (almost solely based in Western experience) can be applied to group experience in the online environment. For this reason, we designed the course using a reflective framework, encouraging the students to be co-researchers with us in our desire to strengthen our understanding of group processes in this new context. Experienced online educators such as Palloff and Pratt (1999) suggest that online groups follow similar stages of development to face-to-face groups, although there are significant differences in aspects of communication that affect group interactions. Our aim in this course was to discover more about these similarities and differences for ourselves.

Implementation and delivery: a story of challenge and (eventual) triumph

Before we examine what we learned about group processes in an online environment, we will briefly describe how the course unfolded over the semester and the challenges that the technology and the design of the course posed for both students and teacher.

The initial enrolment for *Group Processes* was 10 students. This number enabled us to form two small groups of five. However only 5 of these 10 students finished the course online and submitted assessments: of the five who left the course, two withdrew for health reasons, two were unable to manage the technology and one was unable to complete because of work commitments. For the five that remained, nearly all experienced frustrations with the technology at various times during the course. As a result of the many difficulties experienced, the university has evaluated Learning Space and is considering changing to a different shell which would eliminate many of the problems. Issues of access and slow connection speeds remain, however.

It took a long time for the course to get under way because of the number of technological and access problems and the need for students to spend a long time familiarising themselves with the new medium. One small group succeeded in having synchronous discussions and got to know each other well through this medium. The other small group suffered from many problems and only had two students who were managing the technology well (both had taken online courses the previous semester).

After five weeks, it was clear that students were unable to keep up with activities. Kath, the teacher, called a teleconference to discuss the issues and made the decision to take a two-week break to give everyone a chance to catch up (i.e. the semester was extended by two weeks). Although this was almost certainly necessary, there was a sense that the group lost momentum, and it took a lot of encouragement to get things moving again. It was necessary to completely revise the schedule of activities and join the students in one group to complete a shortened number of activities. At this stage this 'larger' group consisted of seven students. Once the group had dwindled to five participants, all women, there was a sense of getting down to the job and persevering until the tasks were completed. These factors all contributed to the significant challenge of maintaining a sense of the group throughout. By the end of the course the students were referring to themselves as the 'survivors'! Nevertheless, a strong bond had formed between the five women.

It is important to note here that the difficulties encountered were not solely due to technological problems. The design of the course was overly ambitious, and failed to take account of the time consuming nature of this form of delivery. As interdependence and collaboration were built in to the activity and assessment structure, it was difficult for

students to be independent in their learning - their capacity to carry out activities and build towards their assignments was limited by the lack of participation from other students particularly in the early stages.

Another significant aspect was Kath's lack of preparedness for what this new delivery mode entails. It is recognised by experienced online educators that teaching in this environment requires different skills and ways of working (Palloff and Pratt, 1999). Kath, a confident and very experienced face-to-face and traditional off-campus teacher, was unprepared for the sense of inadequacy she felt in the face of the difficulties the online students were experiencing and felt a lack of clarity about what her role should be. In traditional external mode students are very much independent and self-directed and contact the teacher directly when they need assistance. With a face-to-face class, the teacher has a clear role in meeting with the group each week, offering guidance and helping to solve problems. In this online mode, it seems that constant monitoring of the group is required - Palloff and Pratt (1999) suggest up to two hours per day is needed to keep in touch with the online group and monitor its progress. This obviously places a significant demand on teachers' time, and in this case, was very difficult to manage. This experience highlights the need to reassess realistic teaching loads when teachers take on online delivery in conjunction with their other teaching responsibilities.

Despite the challenges experienced as a result of technological problems, ambitious course design, built-in interdependence and low levels of facilitation and monitoring, the students in this course learnt a great deal about group processes, both face-to-face and online.

Learning about Group Processes

In many ways, the online environment provides an opportunity to build community in ways that are at the same time similar to, but different from, building community in face-to-face settings such as workplaces and neighbourhoods, communities defined by place, rather than by communication (Palloff and Pratt, 1999). In this section, we examine aspects of group processes in the light of students' reflections on their experiences as a group learning online: developing a group identity, participation and commitment, communication, leadership and roles, conflict, group norms and the stages of group development. Material from the students' journals and assignments as well as their ongoing course communications is used to illustrate our discussion.

Developing a group identity

The definition of a group for the purposes of this course was that used by Johnson and Johnson (1994, p.13):

A small group may be defined as two or more individuals who (a) interact with each other, (b) are interdependent, (c) define themselves and are defined by others as belonging to the group, (d) share norms concerning matters of common interest and participate in a system of interlocking roles, (e) influence each other, (f) find the group rewarding, and (g) pursue common goals.

The group of students studying Group Processes online exhibited all these characteristics.

It has been argued that consciously establishing a group identity for students studying online may be even more important than it is for students studying in a face-to-face environment (Nipper, 1989; Palloff and Pratt, 1999):

Students need to gather in cyberspace, just as they do on the campus of a university. To accomplish this, they need to establish a sense of presence online; that allows their personality to come through to others in the group. This may create a sense of freedom, allowing otherwise unexplored parts of their personality to emerge. Such explorations can be fostered by encouraging students to post introductions along with their fears and expectations for the process, or, when possible to create a homepage that others in the group can visit (Palloff and Pratt, 1999, p.11)

Furthermore, Nipper (1989) argues that there is a need for students and teachers to create a 'synchronous presence' and reduce the social distance between all participants. An early writer in the area of online course development, he also expresses caution in relation to the potential for social interactivity to dominate at the expense of educational processes:

... the small talk and socialising overshadows the educational objectives, disintegrates subject discussions and imposes low on-line discipline in the electronic classrooms ... The kind of ... discourse found in [online] learner environments is mimicking the sense of being together in a group, and is emulating the synchronous presence in ordinary classrooms. What is ambiguous is that the medium starts to generate a feeling of simultaneous presence, where the learner is reflecting a need for a social presence and transparency that cannot in fact be met (Nipper, 1989, p. 70).

In our experience, this problem was more readily observable when students were communicating synchronously rather than asynchronously, as discussed below.

In an attempt to establish a sense of the group from the outset, students were asked to fill out a 'profile' (similar to a homepage) with information about themselves that was accessible to all course participants and to post a contribution to the course room as an 'icebreaker' activity, answering the following questions:

- *what excites you about studying online?*
- *what scares you about it?*
- *what do you hope to get out of studying Group Processes?*

Kath had already filled in her profile, which modelled a combination of professional and personal information, in the hope that students would take the opportunity to share as much about themselves that felt comfortable. The level of self-disclosure in this early stage mimicked the opening of any group, with some revealing much more of themselves than others in this initial 'forming' stage of the group.

Interestingly, all fears expressed at the beginning of semester were related to the technology, rather than the how the new medium may affect learning or fears about the 'visibility' of their contributions:

Studying online is exciting because it's a way of participating in a new medium ie studying by computer, which is becoming more and more prevalent in our society. It's a challenge and yet, because it is not

insurmountable, it's interesting. I also feel that online students get extra attention because this medium is so new, the class sizes are small and the university has a great interest in ensuring this works. Studying online is also scary because all the information is on a computer, out of reach, and vulnerable to 'glitches' (Student A).

Online study removes the isolation of being an external student and I find that discussion is a valuable part of the learning process. Discussion and debate provokes thought and really helps in getting a better understanding of an issue, and is something I missed as an external student. There's nothing frightening about online study, unless the server goes down and I miss my regular dose of what's going on in the course room (Student B).

the prospect of participating is exciting. I don't really know what I am doing in relation to the technology, and that's scary (Student C).

In this initial 'icebreaking' activity, one of the experienced online students (Student B) engaged others immediately in discussion by asking for clarification of their comments, which also had the effect of establishing the sense of a group that was interacting from the outset.

Participation and commitment

For a group to function effectively and meet its goals, commitment to the group and participation in the group's process and decision making are very important. There is no doubt that the technological barriers provided a huge challenge to maintaining a commitment to this online group. Moreover, participation in an online group requires a different kind of commitment than in a face-to-face group:

The physical presence or absence of someone in a face-to-face group is noticeable, whether they participate verbally or not. In this electronic setting people can disappear more easily; their absence is noticed but it is easier to ignore than an empty chair would be. It is also easier to be a silent member in a face-to-face group. People know you are present when you are not speaking. In our electronic groups, silent members are just not there (Palloff and Pratt, 1999, p. 37).

One student in her journal reflections picked up this point well:

... commitment to a face to face group is given as soon as you walk in the door. Technology has hampered commitment to the group as it has taken time for everyone to wrestle with computers and actually get online to become part of the group. In this sense, it has been a rather cumbersome process. In addition, because it is easier to walk away from a computer than it is to walk out on a group, it does not require the same level of commitment and contribution to discussion. It is easy not to become involved (Student B).

It was not until the group had finally established its membership at five, about half-way through the semester, that participation and commitment from all was evident.

Communication

Groups have a number of characteristics that make them unique and provide a specialised context for communication. These characteristics include interdependence, a common goal, the group's personality, the commitment of group members, and the group's cohesiveness. Other characteristics provide a specialised context: group conflict, social facilitation, gender differences, group size and group norms (Seiler, 1996).

All of these aspects were present in this online group experience: interdependence was established from the beginning through the necessity for collaboration to achieve educational goals; the common goal of learning group processes was a clear understanding shared by all participants; the group had a particular sort of personality, grounded very much in the peculiarities of the online environment, as identified by researchers such as Pratt (1996 cited in Palloff and Pratt, 1999); the commitment of group members (those that saw the course through to its conclusion) was very apparent, as the evidence cited below demonstrates; and cohesion developed to some degree despite the challenges of the technology.

By far the greatest amount of comment from the students in their online experience centred around communication issues. They were particularly conscious of the lack of face-to-face cues that we usually rely on to judge appearances, pick up nuances in speech and tone, work out whether a joke is being made, notice why someone may be silent ... and so on. In effect, communication through the online medium, unlike face-to-face, produces a 'disembodiment' (Palloff and Pratt, 1999).

For example, in the early weeks, one student commented in her journal:

It is difficult to introduce myself to the group. I haven't worked out the 'talk' button yet. I am allowing myself to be intimidated by the technology. I do not have all the signals we use in communication, body language, intonation in voice. I am relying completely on words but I do not know if my words are getting through ... [later] ...I believe I have been feeling uncomfortable because I am not receiving all the extra messages that I normally receive when having a conversation (verbal) with someone. The extras I am thinking about are the unconscious messages we both emit and receive. The intonation of the voice, whether it is soft or sharp. We get so much meaning from the speech ... We receive even more messages from face to face interaction by reading the body language. We have had telephones around long enough to learn how to pick up the unspoken messages in this medium, maybe when this communication has been in common use for the same length of time we will devise ways of understanding the unspoken within this form of communication (Student C).

Another student noted that communication was a challenging issue because:

immediate feedback was not possible, as each student was unable to 'see' if they had the attention of other students. Face to face communication involves the use of body language, which is usually 55% of communication content, and tone and inflection in their voice, which is another 38% of communication content (Tyson 1998, p.80). Hence in this online course, communication was hampered as individuals were restricted to communicating by written words only (Student A).

However, one student was able to identify how non-verbal communication online could

be detected:

This was made evident in a synchronous discussion in which the group was chatting easily for a time and then suddenly everyone was silent. As observer, I sat back and watched with interest - at first I thought perhaps it was another technical hitch, but everyone was still online. After a time, a group member made a tentative comment to which another member rapidly responded. In a face to face group when silences occur, it feels uncomfortable and someone usually comes to the rescue with a comment. This online silence was clearly an example of the way in which non verbal communication is present in an online environment. There was a feeling of tension created which dissipated once the conversation recommenced (Student D).

It is interesting to note that for those who are strong advocates of online community building such as Palloff and Pratt (1999), making verbal communication more conscious and therefore by implication raising its significance in relation to non-verbal aspects will have the effect of enhancing group development.

Differences were apparent also between communicating synchronously compared with asynchronously. With real time communication, there was more humour and informality, while with delayed communication the students tended to communicate more formally.

I found that in asynchronous communication the spontaneity is lost whereas in synchronous, ... we were able to achieve a togetherness. This was one of the best experiences I have had, as a group, in online communications. With [synchronous], online communications came together and we were able to get to share some of our lives spontaneously. I felt energised and positive about the group (Student E).

However, the tutor noticed that when students were communicating synchronously, they gave little attention to their required task or activity, and much more to maintenance actions, such as getting to know each other, sharing jokes, enjoying the novelty of the medium. When students were required to do particular tasks in asynchronous mode, they were likely to be more formal and less chatty in their communications, but were giving serious thought to course content.

This raises the question of the usefulness of synchronous communication educationally. It has been argued that the asynchronous environment is preferable for real learning and the creation of a 'learning community' whereas synchronous communication:

... rarely allows for productive discussion or participation and frequently disintegrates into simple one-line contributions of minimal depth (Palloff and Pratt, 1999, p. 47).

Synchronous communication is also much more subject to the vagaries of technological and service provider capacities. On a number of occasions students were unable to log on at the appointed time, or lost their connection mid conversation. Another difficulty was 'losing the thread' of the discussion through conversations that became out of order - something for which there is no face-to-face comparison:

This is obviously why it is crucial to have a designated facilitator who invites group members to chat during synchronous discussions (Student D)

It would seem that learning how to communicate with subtlety and authenticity in this medium will take time - when difficulties arise, it takes longer to clarify and sort out any miscommunication. For instance, when Kath inadvertently made an error affecting one student's participation in a teleconference, causing the student some distress, communicating online seemed inadequate for the task. A phone call was the preferred medium to apologise and reassure.

The lack of visual cues can also lead to misunderstandings - for instance it is not always possible to communicate humour and a misunderstanding arose when a comment was made in jest and had to be clarified through a number of postings in the discussion room.

While the lack of face-to-face cues can inhibit communication in some ways, some social psychologists have argued that more intense relationships can be built with the removal of face-to-face inhibitions (Palloff and Pratt, 1999). For instance, Gergen (1991) believes online communication and interaction can continuously alter identity:

One's identity is continuously emergent, re-formed and redirected as one moves through the sea of ever-changing relationships (cited in Palloff and Pratt, 1999, p. 15)

Kath felt that in her interactions with the students, she had to keep asserting and clarifying her identity as both facilitator and group member as circumstances kept changing.

Leadership and roles

In the course leadership was defined broadly as 'any action that helps a group maintain effective working relationships among its members is a leadership action'. Leadership was taken in the formal sense by Kath, the tutor, but was also encouraged through allocating specific leadership tasks for participants with each activity.

In designing the course we felt that it was very important that clear roles for each of the activities be set from the beginning. As well as these formal roles, other roles also emerged, as in any face-to-face group. As all the participants were women, most took on supporting and encouraging roles. The level of support that students developed for each other as the group size shrank was evidenced by expressions of sympathy and support for one student who had two significant bereavements during the semester:

I just don't think there are words capable of comfort in times of sadness and loss. I send a 'cyber hug' instead (Student D).

A strong leadership role was taken by the two participants who had experience with online learning from the previous semester. They also took on roles of clarifier, evaluator, diagnoser and summariser.

An interesting development was the way the group perceived the role of the teacher. Kath felt uncertain teaching in this new medium and did not take on as directive and visible a role as she does when she teaches students face-to-face. Part of this was the difficulty of finding a position between strategies used in face-to-face teaching and strategies used for traditional off-campus teaching in which students are essentially self-directed in their learning. However, she did participate in some online discussions and was instrumental in organising synchronous discussions, and redesigning the course after a significant number of dropouts. In journal reflections and evaluations there was almost no mention of the

tutor as a group member, even though in terms of group processes theory her leadership role was significant in terms of influencing the direction and conduct of the group. It is possible that Kath's lack of involvement in the 'chitchat' discussions (a separate area designed for students only - like a coffee shop on campus) meant that the students did not perceive her as being a participant in the group process in the same way that they were.

In some instances students comments highlighted the "invisibility" of Kath's comments in the discussions. These experiences caused Kath to reflect on her own teaching style. She recognised that to a degree she attributes her success as a face-to-face teacher to the force of her presence and personality in the classroom. In the online environment, where there are only words on a screen, different skills and teaching strategies are called for. This appears to support the research explored by Palloff and Pratt (1999) who argue that learning in these environments becomes centred in the 'learning community', with students taking a much more active role in their own learning, with teachers as facilitators and guides, rather than imparters of knowledge. The difficulty faced by teachers in the transition from face-to-face classrooms to online environments is echoed by others, such as Gunawardena (1992) and Collins and Berge (1996). It appears from the literature that it is essential to move to 'constructivist' models of teaching and learning, which emphasise student control of learning (Brooks and Brooks, 1993; Baylor, Samsonov and Smith, 1997; Palloff and Pratt, 1999).

Conflict

Conflict is a normal feature of most groups that meet over a period of time. A notable feature of this online group experience was the lack of observable conflict within the group, or conflict that members were willing to acknowledge. Some, however, did note the frustrations from the early silences of non-participants. Most students commented on the fact that in this medium there is a greater likelihood of responses being more considered and the lack of visible body language means that anger or frustration may not be so readily communicated. Much of the frustration about the technology was reflected in journals or directed towards the technology support staff.

This experience does not seem to support discussions by Macduff (1994) and Palloff and Pratt (1999) who argue that the electronic medium produces a *greater* likelihood for conflict because of absence of non-verbal, facial and body cues and the difficulty of expressing emotion through text. It is perhaps important to point out that a significant social constraint on a group of students is the presence of a teacher who is also their assessor. It should also be noted that Kath intervened on a number of occasions to 'get the group on track' as people dropped from the course: it is possible that organising a timely teleconference and restructuring the course helped to avert more serious conflict and dysfunction.

Group norms

Explicit norms are the stated rules and expectations about group member behaviour. Groups can also be seen to exhibit implicit norms, behaviours which develop over a period of time as the group 'culture' grows and common value systems are established. It is often recommended that norms be established and agreed to by all members early on in the group (Dick, 1991) through goal setting, team building, altering the physical environment and so on.

Explicit norms in the online group were established by students early in the course and included:

1. To be without judgement
2. To be within the moment (focused)
3. To attend the group within that state
4. To be totally open to the learning experience
5. To respect the opinions of others

Palloff and Pratt (1999, p.36) argue that discussion of issues of openness, honesty and safety early in the group and throughout its life:

... help to create a community that evolves emotionally and spiritually and that provides a safe, intimate and cohesive space in which we can openly share our thoughts and feelings while learning from each other.

Implicit norms that developed included encouragement and support for each other, as well as a certain formality in structured asynchronous activities compared with the informality of 'chitchat' discussions and live chat. Humour also became a norm which helped in dealing with all the frustrations of the technological problems.

One student felt that technological interference with communication became another norm:

However by this time, technology related communication problems had become a group norm and was no longer considered a major impediment (Student B).

Stages of Group Development

Researchers into group behaviour suggest that groups, whatever their purpose, have a life cycle, often progressing through recognisable developmental stages. The most familiar model is that described by Tuckman (cited in Tyson, 1998): forming; storming; norming; performing and mourning. It would seem that any group is likely to have a developmental experience, and the online group was no exception. Experienced educators and researchers in online education indicate that online groups (if they have a group identity) do have a similar life cycle (Palloff and Pratt, 1999).

The tentative beginnings in the forming stage have already been described. Students initially felt that the group did not go through a storming period, as there appeared to be no conflict between members. However, the enormous technological difficulties and frustrations that led to many having to leave the course created great anxiety among the remaining members of the group which prevented the group from moving into the norming and performing stages. It was not until the course was reorganised and put back on track in the light of the disruptions that the group could then relax into its task of completing the required activities as a whole group of five. This could be interpreted as a successful resolution of the potential conflict and subsequent disintegration allowing the group to move into norming and performing.

The students' reflections on this aspect of group theory in relation to their online group

experience are revealing:

When the[small] group first came together the chat was asynchronous and formal attitudes prevailed. It is my belief the formality was a demonstration of the tentative behaviours described in Tyson. ...After the initial asynchronous communication the ... group organised to 'talk' synchronously using ICQ. The communication flowed and the members chatted and shared some of their experiences, which helped to form a bond between the group members. ... This process of 'getting to know you' would have happened much more quickly with a face to face group (Student C).

In the on-line group, I could clearly observe the stages of group development. Initially the members presented as apprehensive, somewhat unsure about themselves, their goals and expectations. The members listened to each other, shared information about themselves, goals and expectations, they were patient, humble and supported each other where possible. This proved to be a nervous time for the group, but it formed the basis for the groups required development (Student E).

My enthusiasm certainly suffered with the frequent realisation that tasks could not be completed and schedules needed to be amended once again. This was further complicated by the disappointments of students leaving the course and wondering if there would be a group of sufficient size left to complete any discussions and hence achieve our course goals. This sense of hopelessness and doubt was a feature of the storming stage of our group process (Student A).

It is significant that of the 11 names that made contributions to the course room during the forming stage, only five group members were left to mourn. This could well be a norm for the storming phase of group development (Student B).

Limitations: a cautionary note

The two most obvious drawbacks of this particular study in relation to its generalisability to other courses are the small sample size and the gender composition. In these early stages of delivering online courses, one of the main challenges has been low initial take-up rates combined with high attrition rates once the courses are under way. The technological difficulties contributing to this have already been discussed. The lack of male participation is a not uncommon feature of social science courses at Southern Cross University, although it is unusual to have a complete absence of male students in any one student group. This became a limiting factor when discussing the impact of gender in the group - there was only the female experience represented, and when assumptions were made about how men contribute in groups, based on their outside experiences, there were no men present to offer alternative views.

Conclusions

This experience of online course design and delivery to off-campus students using collaborative processes, offers some significant insights that may be useful to educators

interested in exploring the potential for building learning communities in the new territory of cyberspace. It also makes a formative contribution to building theoretical understanding of group processes in this environment.

It would seem that straddling the gap between face-to-face and print-based distance education through exploring the online dimension requires careful educational design and adequate professional development for teachers. The vulnerability that is produced through a tendency towards over-reliance on technology needs to be recognised and contingency planning in the event of technological breakdowns should be part of any course design. The main problems encountered in teaching *Group Processes* online were technological in nature and origin: lack of student preparation and understanding of the particular course shell used; differential online familiarity and technological skill; and significant attrition rates due partly to frustrations with negotiating the technology. These problems were exacerbated by an over-ambitious course design which incorporated significant levels of interdependence, necessitating frequent reorganisation and consolidation of groups. A more cautious attitude towards what is feasible within technological constraints and greater understanding of the communication issues likely to be encountered in online collaboration would reduce the likelihood of the kind of frustrations we experienced. Furthermore, we would argue that taking on online delivery significantly increases the amount of time taken in distance delivery and should be reflected appropriately in teaching load allocations.

While much of our experience reveals a cautionary tale, there is no doubt that significant learning about group processes occurred and the students who remained in the course developed a sophisticated understanding of the interactive potentials and issues faced in online collaboration. The flexibility offered by the online environment allowed opportunities for course redesign to meet the needs of the particular group, flexibility that is not possible in traditional distance education.

Students discovered that online groups follow similar stages of development as do face-to-face groups; that self-disclosure and communication online create different dilemmas for group cohesion; that participation in an online group requires a different type of commitment than in a face-to-face group; that establishing clear norms and guidelines from the outset is as vital in the online setting as in a face-to-face environment; that conflict is mediated differently online and that leadership and support roles emerge as inevitably as in any group.

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