

## **PARTICIPATION IN TEAMROOMS: A STUDY IN ONLINE ACADEMIC COLLABORATION**

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### **Abstract**

Research and practice in online group work has many times highlighted the problems and challenges in groups working online. In this project, the issue of users' perceptions and their interaction patterns was investigated in the context of teamrooms. Teamrooms are 'collaborative spaces' (Digenti, 2003) that enable a team to communicate through messages posted and made accessible at any time and from any place. In this project, students tried to work on a group task related to report writing and used teamrooms for initial decision-making. The study focused on the students who could not or did not make optimal use of teamrooms and investigated the reasons for this avoidance. In the second part of the study, the postings made by the students were analysed focusing on the patterns of interaction in the process of forming and maintaining the online groups. On the basis of these two sets of data, it was concluded that teamrooms are more suitable for exploratory tasks rather than structured and deadline-bound tasks. The paper also makes recommendations regarding the strategies that can be used by teachers to build more effective participation in teamrooms.

### **1. Background**

Computers and electronic networks have revolutionized academic group communication. Without having to find time and place suitable to all, groups can interact using e-mail, discussion boards, virtual classrooms and teamrooms. Small and large student groups "networked classroom" can use computer communication for group projects, sharing of ideas, problem-solving, consensus development, and coordination and operation of group projects. Learning to operate successfully within an online community involves a number of stages (elaborated in Cuthell, 2004). The first stage is dependent upon an understanding of the infrastructure and the interface: email, listservs, websites and the ways in which the user can interact with these. Some users experience a long period of frustration before they are able to participate. The second stage requires the participant to learn the norms of online communication. These may involve the routines and etiquette of the group or the community. When the user is able to operate independently, the interactions within the community become transparent. Also, the competences can be

transferred to other online communities. The learning curve for the individual, then, is supported by the cognition distributed within the community. This distribution may be within the structure of the community: help files; automated messaging; checks supported by the software on which the community is based. Cognition is also distributed among exchanges contained within the archive to which members have accesses (Cuthell, 2004). The greatest store of cognition, however, is distributed among the members of the community, to which the individual has access (cf. Wertsch, 1991). Research and practice in online group work has, however, many times highlighted the problems and challenges in groups working online. A number of studies reported longer time taken by online groups to complete the allotted task (Daly, 1993; Weisband, 1992). Weisband (1992) also reported implicit decision making, social pressure remarks and task irrelevant remarks, which might lead to a longer time frame for decision making. Strong evidence, however, supports the idea that when a task involves less social-emotional interaction (such as idea-generation) online groups perform better than face-to-face groups (see Gallupe et al, 1991).

One example of online group communication is the teamroom. Like email and e-conferencing, teamrooms are 'collaborative spaces' (Digenti, 2003) that enable a team to communicate through messages posted and made accessible at any time and from any place. Teamrooms are also found to be promising as 'a central strategic support for successful teams' (ibidem). For instance, teamrooms facilitate chat, web conferencing and application, document sharing, threaded discussions, email and file exchange. Johansen et al (1991) describes how teamrooms have become an important tool used by business teams to organize their work. Teamrooms provide a permanent shared space used by the team, which can serve as a meeting room, a work area, a place to store documents that are needed by the team's projects, and more generally, as a venue for communication within the group. Roseman and Greenberg (1996) describe a system where users run a teamroom client that connects over a network to a server providing a number of rooms. Each room contains both generic communication tools (a chat tool and a backdrop acting as a shared whiteboard) and any number of *applets* needed to support the group's work. Typical applets would be diagramming tools, outliners, brainstorming tools, browsers for information such as web pages, notes to other team members, as well as more frivolous items such as card games. When team members are in a room at the same time, they see each other's actions both through changes in the room's artifacts and through mechanisms such as multiple telepointers. As with real rooms, all artifacts in the electronic room persist even when no one is in the room.

Yet, as mentioned earlier, teamrooms do not always work as well as expected. This could be due to factors such as users' perception of what teamrooms are and the way they are used. In this paper we explore the effects of structuring the online space as teamrooms on the quality of participation.

## **2. Present Study**

The structure and effects of teamrooms become particularly interesting in the context of a communication skills course. In this experiment, we tried to use teamrooms in the teaching of technical report writing. The participants in the study were 115 second-year Engineering students studying a Communication Skills module. As part of this module, the students were required to complete a group task on report writing. Four groups were full-time students attending day classes while the fifth consisted of part-time students who were working adults attending classes a few evenings a week. The average class size was 22 students. In the specific context of the experiment, the participants were engaged in a two-fold task. They were expected to prepare a short written report on the topic of their choice; and, secondly deliver a group oral presentation based on the written report.

The e-learning environment used at the university is Blackboard (known as *edventure* to faculty and students). Although it is common to use independent Teamroom servers, we decided to use the group-creation tool in *Blackboard* to simulate the teamroom environment. Although there are technological differences between the dedicated server environment and the Blackboard environment, we believe that pedagogically there would be no significant difference between the two. At the time of the study, the Communication Skills course was taught face-to-face and supported by an online module where course announcements, lecture notes and assignment notices were posted on the module's course site. Tutorial sites were created for each tutor as a complementary platform to the face-to-face lessons. The tutor in this study was receptive to the use of Blackboard in her classes. At the time of the study, she had started to use, on a bigger scale, the online component together with the face-to-face sessions. Students were encouraged to make use of *edventure* as an additional venue for communication with their classmates.

As we were interested in how course participants interacted in teamrooms and what strategies were used to build participation, we asked the following questions:

1) Did students find the use of teamrooms more (or less) satisfactory compared to face-to-face interaction, and if so, why?

This question was important since earlier research had pointed towards a number of unsatisfactory aspects of online group work. Hence it was necessary to investigate into students' concerns regarding this form of online group communication.

2) What patterns of interaction emerged in teamrooms?

We were also interested in how different stages of team formation and team maintenance were observed in the teamrooms. If educators are aware of the nature of online group interactions, they can make necessary modifications in their instruction and feedback.

3) What strategies can be used to build participation in teamrooms?

Based on the data obtained in relation to the first two research questions, it was possible to recommend strategies that can be used by the teachers to build better participation in the teamrooms. The methodology of our research is described below.

At the start of the course, students were informed of the study and invited to participate in it. They were encouraged to use the *Communication* function within the tutorial site for discussions and conversations with their classmates. To help students do this, group pages were created for each group. It was deemed appropriate to ease students into online participation. For instance, the first activity for each group was an ice-breaker, which attracted a large number of responses (93 out of 115). As the course progressed, each tutorial group was given topic-related discussion questions to post their responses to. It was hoped that this would help students become familiar with using the online environment. In the later part of the course, when it was time to work on two tasks, namely report writing and oral presentation, students organized themselves into smaller discussion groups. The value of teamrooms was explained to them and the schedule for the report writing task given (see Appendix 1). The groups could request teamrooms, if they wanted. Altogether, 12 teamrooms were created from three full-time classes and the part-time class.

Data for the study were collected from teamroom discussions on the report writing task and preparations for the oral presentation, as well as survey responses to students' perceptions of teamrooms. The survey was conducted at the end of the course. Therefore, the questionnaire was relevant not only to those who had experience using teamrooms but also to those who had not requested one. 98 students (83 full-time and 15 part-time) responded to the questionnaire. Data analysis involved examining 48 postings and 98 responses to the questionnaire.

### **3. Data and Findings**

Let us first discuss data from student surveys. The questionnaire used in the survey aimed to elicit students' perceptions of teamrooms in building participation (Table 1). The main issue was the frequency of use of teamrooms. The data showed that none of the respondents used them 'very often', 6% used them 'often', 41% 'rarely' used them, and 53% 'never' used the teamrooms. Reasons given for frequency of use were categorized according to the following seven aspects: speed and style of decision-making in teamroom, ease and convenience or comfort level, time, quality of interaction and communication effectiveness.

The responses to each category mainly bring out the less positive aspects of the teamrooms. (See questionnaire in Appendix 2. Percentages calculated are based on total number of responses to each category.)

Table 1: *Reasons for Infrequent Use of Teamroom* ( n=98)

<b>Reasons</b> <i>(I did not use Teamrooms much because they...)</i>	<b>Full-time</b> <b>students</b>	<b>Part-time</b> <b>students</b>	<b>Total</b>
Lead to slower decision making	91%	70 %	88%
Leas to less democratic decision making	73%	100%	75%
Are difficult to use	51%	83%	55%
Place heavy demands on time	77%	60%	75%
Have a low quality of interaction	97 %	78%	94%
Are ineffectiveness in terms of communication	86%	75%	85%
Have a low comfort level	75%	40%	70%

More significantly, students’ comments in the questionnaires focused on speed of decision making, communication effectiveness and comfort level. The following section discusses the main findings in these three aspects.

*Speed of decision making*

An overwhelming majority (88%) from both full-time and part-time groups rated teamroom decision-making as slow.

It appears that face-to-face meetings and other messaging systems (e.g. ICQ) were preferred as they offer real-time communication. The students seemed to think that decisions could be reached within a shorter time through these systems, compared to having to wait for group members to log on to Blackboard in order to respond. Some students compared teamrooms with messenger services. Three examples of such a reaction are given below:

*Things can be done more easily by meeting face-to-face. With the common usage of messenger programs like ICQ, it will be more preferred by students.*

*Instant messengers are more efficient for leaving messages or for real-time chat. Thus, not using TR.*

*While we can contact each others with e-mail, chats or handphones, teamrooms are rather hard to access and communicate.*

Others compared teamrooms with real-time face-to-face interaction. See the examples of this reaction below:

*It is easier to meet up and chat face to face. Decision and disagreements can be better decided upon if meet face to face.*

*The posting of the discussion are slow and not real-time, therefore it is not that effective to make certain decision.*

These and other similar reactions indicate that although some students prefer the face-to-face communication, many of them were particularly concerned about the asynchronous nature and rather rigid structure of the teamrooms. The 'slow' decision making was related to these two aspects.

#### *Communication effectiveness*

Only 15% of respondents felt that effective communication could be achieved via teamrooms. In sharp contrast to this is the 85% who thought differently. Again, the main reason for this negative perception appears to be a preference for real-time (online or face-to-face) interaction. This can be seen in the examples below:

*Feel discussion should be verbal or interaction with someone face to face.*

*Not real time interacting.*

*Discussion is more effective when it is a face-to-face discussion.*

This preference for face-to-face interaction suggests that respondents were more comfortable with the presence of contextual cues such as body language and other forms of non-verbal communication while communicating with others. Some students did indeed elaborate on these aspects:

*You can express yourself in a face-to-face discussion.*

*Meeting face to face: More instant. Easier to explain ideas. More ideas can be state rather than trying to make clear on one.*

*Hard to put ideas into words.*

These reactions show that these students find it rather hard to interact through a medium that places a heavy demand on the use of language. The last reaction alone clearly expresses this difficulty. There were, however, a few who viewed teamrooms as a valuable platform for specific communication purposes. They emphasized a more pro-active student role as a requirement for the success of teamrooms:

*TRs are highly efficient tools of communication of ideas and knowledge between team members. However, more active and not passive participation from the team players themselves would be required in order that its full effective potential be realized.*

This comment highlights the need for teamroom participants to be 'active' team members working toward effective group communication. This suggests that when group communication is effective, participation rate in team rooms is likely to improve. Another aspect of the benefit of teamrooms relates to the nature of the discussion. Students generally felt that for comprehensive discussions, teamrooms were not the right channel:

*TRs are not effective when we need to discuss a lot of details.*

*Not useful when you and team members have a lot of things to discuss.*

Perhaps the issue lies in the scope of the discussion to be had. For intense discussions, as those expected when there are 'details' to look into, teamrooms are perceived to be incapable of supporting the activity well. However, where wide coverage of multiple issues is of importance, teamrooms may serve the purpose well enough. This finding stands in stark contrast with the general belief that teamrooms can offer a good platform for extensive group discussion.

#### *Comfort level*

A large number of respondents (70%) reported that they were not comfortable using teamrooms. They either did not find teamrooms convenient to use, because of the constraints of equipment, time and space, or they preferred alternative messaging systems. Reactions to various features of teamrooms are categorized below:

#### Log-on features

*It is more comfortable to meet in person and have a discussion. Put off by the need to log on to adventure to have a discussion.*

*Would require all members to be logged on at the same time.*

#### Access to the Internet

Very few students had a problem in accessing the Internet. One of such minority reactions is given below. However, the asynchronous nature of teamrooms was not appreciated by many:

*I do not have ready access to Internet and thus TR becomes not effective though it could have been a very useful tool.*

*I would say that it takes time for the rest of the members to reply, as not all of them access the TRs at the same time. This makes it troublesome to constantly log on to the Internet to check for their replies.*

A possible reason for this problem is the group size. Since there were only four students in a group, the frequency of postings was rather low. It seems that group size is highly relevant in maintaining the dynamics in teamrooms.

To some respondents, additional features would make teamrooms convenient to use. This fact is indicated in the following reaction:

*Don't have time to explore Edventure. Should link it with Webmail  
so I do not need to search for the site.*

*Why not create a chat room in addition to TR? The servers always  
lag, have problems in logging in.*

Although teamrooms could be used for a purpose completely unrelated to the given academic task, this is not necessarily a problem. If participation can be 'built' or needs to be built, then chatting on social topics could be a way for group members to bond, as a necessary prelude to participation. Still, some tutors may feel they need to keep track of the 'discussions' to ensure that the main academic purpose of the teamroom is not compromised. Finally, related to how comfortable respondents felt about using teamrooms, the part-time group pointed to the need for confidentiality:

*Within the team should have a password to go into their TRs.*

*Other teams are able to see or copy our ideas.*

*TR should be private.*

Although it is quite easy to fulfill this requirement, the reason for this sentiment is unclear. The environment used for the experiment (Blackboard) is in fact secure and exists behind a firewall. It is also password-protected. However, discussions in a teamroom can be viewed by students in another teamroom. This apparent lack of trust among peers is rather surprising. Was it a sense of competition or a lack of self-confidence that motivated these concerns? Still, in some instances, the security issue could be a valid one, which deserves consideration. In our study, since the discussions did not contribute to assessment, it was not deemed necessary to provide passwords to ensure confidentiality. On the contrary, peer viewing was allowed to encourage sharing of ideas across different teams.

Most of the reactions from the survey were less than positive. However, the small number of students who were enthusiastic about teamrooms went ahead and made use of them. Some interesting patterns of interaction emerged from their postings. We analysed these patterns and our analysis is presented in the next section.

To analyse the postings made in different teamrooms, we asked ourselves four questions that are vital to the various stages of group work development. Our analysis based on these four questions is presented below.

1) How do groups establish contact? (The orientation phase)

Individuals may gather as a group, but the group must also be maintained, and this can be done through building on each other's ideas, use of familiar language and appeal to common interest. It was found that students used the following strategies to complete the formation of the group:

- A request for help

*I cant manage to get on the website man...where r the rest of the team mates man... get they in to chat... u as a leader of the group should force them to come in hehe.*

- An expression of interest in activities (usually unrelated to the academic task)

*hey..quanwei r u a real madrid fan??? do you bet on soccer?*

- A humorous opening remark

*I tink we just do a presentation on soccer and betting.. haha.*

- An oblique reference to a current local issue

*pianz... hmmm... the legalization of betting in Singapore? ...haha.*

The speech-like features, in particular, suggest the building of a bond among team members. The use of vernacular and abbreviated language seems to contribute to a less formal communication climate among members – again, this could be a strategy to get members to participate in the discussion.

2) How are member roles established?

Although a leader was assigned to each group, it was interesting to see new leaders emerging in the process of online group work. It was generally seen that those who emerged as leaders were the ones who took initiative and usually made the first contribution in the teamroom. They also usually underplayed their leadership in the beginning. For instance:

*Hi, these r the topics tat came to my mind.*

They thus left the door open in case there was another leader in the room. However, they quickly set the agenda using a structured framework. For instance:

*The sub categories of each topics r jus some few areas tat we can go into.*

In some cases, the leader left little scope for open discussion, and provided a tight framework within which discussion was to take place:

*I suggest that we choose an interesting topic for our oral presentation. Politics, technical topics etc. are very boring. It will bore out tutor and class-mates to death. Could we have something more humorous instead. I have a suggestion, what about this topic on 'Things that make us Singaporean?' It is a topic that everyone of us can relate to. Example: 'Our 3-letters acronyms for everything vehicular: ECP, CTE, PIE, BKE, AYE, COE, ERP, MRT, LRT...'*

Potential leaders either get challenged or are confirmed as leaders by the 'followers'. In response to the above initiatives, teammates accepted the frameworks suggested earlier and made the following contribution:

*Hey.. I happen to come out with the idea of Cashless future topic too!! Great minds thin alike!!*

*I agree with your topic selection, it is interesting. If all our teammates agree, then we can brainstorm more on this topic.*

These postings show that once a potential leader's contribution was supported by another group member, his/ her leadership was confirmed. While some leaders made an initial posting and waited to see if there were other potential leaders in the group, others made a long initial posting clearly making a claim on the leadership position:

*Yo guyz!!! Juz wanted to be the first to greet you guyz when you see this forum!!! Found some materials on stress already!!! What? you haven't? So stressed? then how??? (Ha ha!!! Juz kidding!!!) anywayz, did you guyz know that stress promptes growth? Ha!!! Was reading the herald juz a while ago and it sayz that we are all living with stress all the time, it's juz that we are numb to it's effects; like a backache that hurts initially, but given time, will soon lose it's effects on us. Ha!!! It also sayz that stress (control) is the very fabric upon which society operates on!!! We all show or exhibit a certain amount of stress through our speech, actions, thoughts, etc. Wow man!!! It really blew my mind to think that society as we know it would crumble without stress!!! Ha!!! Anywayz I think it's an issue worth looking into!!! So till next time, or when you guyz have any important messages!!! Chow!!!*

In this case the leader used personal reflections and humour to make a claim on the leadership position. Leaders' postings were also typically longer than the postings made by others. In this case the posting was about six times longer compared to the average length of other postings. The data indicates that conviction is typically expressed by the

length of the message and use of firm expressions such as ‘*We all show*’ and ‘*It is an issue...*’. In the post quoted above, the leader also used some clever strategies such as:

- Simulating dialogue (“*What? You haven’t?*”) between the initiator and other team members.
- Using phrases such as “*fabric upon which society operates*” (although this amounts to mixing of registers) to show authority by using more sophisticated language, without alienating other members.
- Positioning himself higher than other participants (“*Did you guyz know that...?*” and “*I think it is an issue...*”) and taking it upon himself the task of keeping other members informed.
- Making a show of authority palatable by using colloquial language: “*It really blew my mind*”. This use of language helps to construct bond between the initiator and other team members.

### 3) How are group decisions made?

Decisions about topic choice and workload could be arrived at when members do not challenge what is presented. For instance, a member who had assumed the leadership role communicated the decision by initiating work distribution and giving directives:

*In our group, two guys and two girls... so guys!! Could u take intro and concluded parts..pls? one idea from Chan Myae, plstic tank (not for water) fighting car.. that’s good.. if we find informations pls email each other..*

But when this was challenged by another member, a stronger voice was needed to resolve potential conflict. In this group, the assigned leader stepped in to assert his position:

*Pls. arrange to meet us in order to choose final topic and discuss for that. besides tank car topic, is there any idea of topic to attract audience’s attention?*

*Ei Phyu, I think u missed the TUT last Monday. Since Ms. Lee ask every group to decide which topic to go for, we’ve choose for plastic tank but if you think u have better topic in mind, let me know early and I’ll try to tell Ms. Lee abt it but make it quick coz we only have one week to prepare for it. Anyway, whether we change or not, I suggest that we better prepare for plastic tank because when the day comes and if we haven’t prepare a single topic at all, we all will be in trouble.*

In this case, the leader clearly adopted a directive approach. Even as he seemed to be open to new ideas, he instructed through use of the imperative form. In this way, the group was brought back to the consensus arrived at earlier.

4) How do groups cope with potential conflicts?

When in agreement with another in the team, members tend to show explicit agreement through clauses like *'I agree'* and *'I think it's a good idea'*. Disagreement, on the other hand, tends to be couched in politeness. For instance, one member in teamroom five was absent when the group decided on a topic. In spite of a team member initiating the distribution of workload, the absent member wanted further discussion on the selection of topic:

*I would like to discuss about our oral presentation. Pls. arrange to meet us in order to choose final topic and discuss for that. besides tank car topic, is there any idea of topic to attract audience's attention? pls. keep in touch with us..*

But when the team members are on familiar terms with one another, it is possible they express disagreement more openly and forcefully. For example, when a member in Team 3 went off tangent with his question to a team mate on soccer betting, the leader showed disapproval of the digression with:

*wad the fish...we supposed to be toking bout our presentation  
lor...*

At the same time, the leader attempted to draw his team back to the topic of discussion with a reminder of what they were supposed to be doing. By ending his remark with 'lor' (a pragmatic particle in Singlish), the leader seemed to be conveying his annoyance (although the tone of displeasure was moderated). From the posting below, it appears that whatever few real 'conflicts' were faced by the teams were mostly resolved face to face:

*Pls. arrange to meet us in order to choose final topic and discuss  
for that. besides tank car topic, is there any idea of topic to attract  
audience's attention?*

The teams seemed to be reluctant to discuss the conflict online. This finding is consistent with the finding from the survey that only 15% of respondents felt that effective communication could be achieved via teamrooms.

#### **4. Discussion**

It is clear from Table 1 that most of the students did not use teamrooms as frequently as was expected. In fact, a large majority of students used them 'rarely' or 'never'. Data in Table 1 indicates that the main reason for this infrequent use was not opposition to the online interaction, but aversion to the structure of the teamrooms themselves. In their reaction many students indicated their preference for 'other' methods of online communication. It can be perhaps concluded that teamrooms were not very popular in the context of this experiment for the following reasons.

Teamrooms do not seem to work well when participants have a structured task before them, and need to complete it by a certain deadline. A small minority of students still went ahead and made successful use of the teamrooms to accomplish their goal. However, data analysis of participant interactions indicates that the quality of interaction was rather low and most of the interaction processes were hardly democratic or egalitarian. Another crucial reason for the unpopularity of teamrooms in our experiment was that the participants knew each other and could always schedule face-to-face meetings. Thus these findings may not be applicable to a situation where a teamroom exists mainly as an online community. Lastly, many of our students seemed to be under the impression that the postings in teamrooms needed to be somewhat elaborate. They therefore preferred online messenger systems where messages are typically cryptic. One can envision that a rapid exchange of cryptic messages might be an integral part of a decision-making process, which did not seem to happen in the teamroom scenario.

As Cuthell (2004) points out, a common observation is that one third of online community members are active, one third read postings and only occasionally contribute, and the final third are inactive. A term commonly mis-applied to those not termed 'active' is that of 'lurker'. It is possible for individuals to simply use an online community to off-load cognitive responsibilities: to throw in a question and then retrieve the answer when others have worked their way through it. The question about lurkers relates to this: if an individual is active, then shared cognitive labour takes place (Resnick, 1991). The question then arises as to whether the one third of members who are readers, or the one third who are not really engaged see themselves as not being part of the shared process. The participants in the working out of a problem are obviously engaged in shared cognitive labour (Salomon, 1993). The issue is how other members of the group perceive themselves (Cuthell, 2004). Our analysis of interactions in the teamrooms shows that effective teamroom users are fully aware of the medium's large dependence on use of language. They seem to take full advantage of this factor to assert their views, to support others' viewpoints and to expedite decision making. The only aspect of group work that they are unable to handle in this medium is expression of disagreement and conflicting viewpoints.

## **5. Recommended Strategies**

Based on students' response to teamrooms, below are suggested strategies for teachers and educators to achieve better use of teamrooms.

### 1) Advise team members to set a time frame for themselves to respond to postings

One way to ensure ongoing discussion and to counter restrictions posed by an asynchronous tool is for members to agree on a time frame within which to post their responses. This is also a way of building participation as each member is expected to have viewed, and responded to, the postings within the set time frame. In this way, there will not be the seemingly endless waiting experienced by some respondents. The teacher can help the team to overcome the time barrier by raising their awareness regarding this potential problem.

### 2) Support asynchronous communication by synchronous communication

Since both synchronous and asynchronous communication have their limitation, a teamroom needs to be supplemented by a synchronous communication tool such as online chat or a messenger system. Decisions that are to be taken in a specific time frame can be assigned to online chat or messenger system. Exploratory tasks can be handled in teamrooms.

### 3) Ensure a secure environment for exchange of ideas

This is in answer to the suggestion that ownership of ideas be protected. One way of assuring participants of confidentiality is to supply passwords so that only team members have the right of access to their room. Although this seems to run against the grain of community-building within the class, it may not be an unreasonable request. If participants suspect their ideas are being 'borrowed' and this stops them from contributing further, then the project of using teamrooms may not succeed much. Creating a secure environment where participants are comfortable about sharing therefore becomes necessary.

## **6. Conclusion**

Online group work offers flexibility as well as some anonymity to the users. Users can selectively project only a part of their personality through this medium. Compared to other online media, teamrooms are more structured and secure. If used in an institutional setting (such as ours), they offer little anonymity and place a very heavy emphasis on the use of written language. Successful users of teamrooms seem to use language flexibly, employing all nuances that express various socio-cultural meanings (as seen in section 4.2 above). Users of teamrooms who influence others' behaviours use these communication skills cautiously to achieve their goals. On the other hand, students who

prefer more spontaneous communication tend to avoid use of teamrooms (as seen in our student survey results).

It may be concluded that a number of factors related to the student psychology, needs, mindset, and context play an important part in the successful use of teamrooms. As educators, we need to analyse the context and the setting before deciding to set up teamrooms and fix the parameters for the collaborative work. It is also clear from this experiment that the patterns of face-to-face social interaction are sometimes replicated and at other times in online interactions. Further research is needed in the area of the formulation of developmental stages in online group work.

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## **Appendix 1**

### **Invitation and Instruction for Students Using Teamrooms for Group Work**

Dear Students

Guess you have already started working on your group Oral Presentations. Here is some good news: We can create TEAMROOMS on edventure to help you discuss your project on-line!!

WHY should you use teamrooms?

1. They are easy to use. You can join the discussion in your own time and from any networked computer.
2. You can also check what is going on in other groups and learn from them.
3. There is always a record of your discussion. So even if you forget a point, you can always come back to it.
4. Your instructor will be monitoring your progress in the teamrooms, and will offer you valuable advice.

So go ahead and start using the teamrooms.

### **SCHEDULE**

This schedule is the report writing project. Your tutor will soon give you more information on this. Your group can modify it if necessary.

#### *Week 10: Basics*

- Introduce yourself and get to know others (if necessary).
- Discuss the topic of your project.
- Divide the responsibilities. Who is going to do what?

#### *Week 11: Focus on Work*

- Show/ report your work to each other.
- Comment on each other's work.
- Decide what to do next.

#### *Week 12: Finalization and Submission*

- Get your work ready for submission.
- Discuss the final draft.

*Remember*

Using TEAMROOMS is a good practice in e-conferencing. They will help you acquire an important skill in the current job environment.

Don't miss this opportunity!! E-mail your tutor immediately requesting her to create a teamroom for your group.

**Appendix 2**

**Use of Team Rooms: Questionnaire for Students**

1. How often did you use Team Room? (Circle your answer)

**Very often**

**Often**

**Rarely**

**Never**

2. Please choose the applicable reasons for your frequent / infrequent use of team rooms. Also circle the correct word(s) from the highlighted ones.

Decision-making is **faster** / **slower** in the team room.

Team Rooms are **difficult** / **easy** to use.

Using Team Rooms **saves time** / **is time consuming**.

Quality of interaction in the Team Rooms is **good**/ **poor** / **average**.

Team Rooms are **effective** / **not so effective** when we need to communicate frequently with the team members

Decision-making in the Team Room is **more** / **less** democratic.

I find it **comfortable**/ **inconvenient** to use the Team Room.

.....

(Your own statement)

.....

(Your own statement)

Please describe in the space below your experience with the Team Rooms. Include any other related comments, if you wish.