

## Participation in on-line courses - how essential is it?

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## Pre-Discussion Paper

### Introduction

Groups of learners on online courses, in common with other online communities, are generally found to comprise both highly participative individuals and those who appear to contribute little to group discussions but who consider that they are actively following the course and learning. I use the neutral term ROPs (Read Only Participants) for the latter rather than the commonly used “lurker” which carries a suggestion of deviant behaviour.

The questions to be addressed in this discussion are to do with issues such as if ROPs on an online course are pursuing an inappropriate learning strategy on their part and, if so, what could be done by course designers and moderators to encourage learner participation.

### Participation and collaborative learning

#### **Question 1: What type of online course benefits most from a participation-rich approach or when should ROPing be discouraged?**

Discussion and sharing experience have been identified as two of the most effective means by which adults learn (Brookfield, 1990; Brown and Duguid, 2000). But there is a difference between, for example, a course in a computer programming language and one in educational theory, the former arguably functioning satisfactorily with a course design based around an individual learner interacting with tutor and course material and moving through the course at their own pace whereas the latter would benefit more from a high degree of collaborative discussion and groupwork (with the implied logistical implications of a group of learners following the course in cohort).

But what about the (indignant) participant who says “I am participating even if I am not involved in discussion”? The existence of a variety of learning styles is now widely accepted and the inherent flexibility of online learning allows us to consider ways of catering for these. Should we then accept that “some people are like that” and accept this as a valid learning style/strategy.

John Seely Brown of PARC Xerox (Schrage, 2002) has applied the idea of the legitimate peripheral participant (LPP) originally used by Lave and Wenger (1990) in the broader context of situated learning, to the situation of online learning communities and sees it as having positive aspects:

“The culture of the Internet allows you to link, lurk, and learn. Once you lurk you can pick up the genre of that community, and you can move from the periphery to the center safely asking a question - sometimes more safely virtually than physically - and then back out again. It has provided a platform for perhaps the most successful form of learning that civilization has ever seen. We may now be in a position to really leverage the community mind”.

However, a question then follows about the value of legitimate peripheral participation for those people who are actively involved in the discussion. In a recent CPsquare project entitled “Let’s get more positive about the term lurker” (CPsquare Lurker Project, 2003) this phenomenon was discussed in some detail from a Communities of

Practice (CoP) perspective. They conclude that “(...) it is valid for participants to interact at different levels, depending on the context of the CoP (or discussion) and their learning needs. However, concern was expressed that while non contributors may be meeting **their** learning needs, the wider group needs active participants to ‘value add’ for all members in order to support the long term sustainability of the community. It was suggested that expected roles and contribution levels be discussed in the initial stages of the CoP, and renegotiated during the life of the CoP.”

## **Measurement**

### **Learner assessment and course evaluation**

#### **Question 2: What sort of participation profiling features should we be looking for in online learning environments?**

One of the great benefits of working online is that it is possible to keep track of learner and tutor written contributions. Most Virtual Learning Environments (VLEs) will allow tutors to keep track of how many messages are posted by each student per week and it is often possible to extract further information such as whether the post was initiating a thread or responding to a previous post.

In a small study on a 20 week online course I recorded the number of posts/week per learner and classified the posts into 3 groups:

- Group One initiated task-related discussion
- Group Two responded to task-related messages
- Group Three were non-task-related messages and replies

From this I went on to chart (using Excel) the participation profile of each learner and made some tentative conclusions about both the involvement of individuals throughout an extended course and also as to the type of activities/tasks that elicited a high degree of participation from learners.

David Wiley (Wiley, 2002) has proposed a more detailed mathematical approach to evaluating participation in multi-thread discussion by operationalizing the discussion and calculating an *adjusted mean reply depth* (d) for each participant where d could have the following values:

**d value, possible interpretation:**

- 0 to 0.3 Monologue or lecture; no discussion
- 0.3 to 1.2 Simple Q & A; chit-chat
- 1.2 and higher Discussion, Multilogue

Wiley’s approach could be applied in software environments that allow discussion threading (this was not possible in First Class in 2002 when I was doing the study mentioned above). I believe both approaches can be fairly time consuming and extracting and processing this information for large numbers of learners is a non-trivial task in many VLEs.

#### **Question 3: Should learner participation be assessed by the awarding of grades?**

This is something of a thorny question and I suspect there is no one answer.

On the one hand, if we are convinced that collaboration is an integral part of the learning process on a particular course, then one way of giving learners an incentive to participate is by grading it. Furthermore, if we as tutors see particular learners actively sharing ideas and knowledge, researching, reflecting and evolving while others remain stubbornly silent it seems to make sense to reflect this in the final assessment grade. Indeed, there is evidence from work by the Suny Learning Network that learners welcome this (Swan et al., 2003)

However measuring this in a transparent way is not easy and the process is also likely to encourage some course participants to post messages simply to maintain their posting averages thus leading to a worse signal/noise ratio and lowering the quality of collaboration.

At the same time, it could be argued that if we believe the kind of active learner involvement described above promotes learning, then perhaps it makes more sense to concentrate on developing more precise learning

assessment tools (portfolio, weekly reflection statements, theme papers) rather than grading participation itself i.e. aim to evaluate the outcome rather than the process.

## **Factors affecting participation**

### **Question 4: What factors contribute to increasing and enhancing learner participation?**

The Suny paper mentioned above (Swan et al., 2003 ) asserts that:

“The findings of the research on computer-mediated communication and asynchronous online learning are quite consistent. They point to three (and only three) course design factors that contribute significantly to the success of online courses. These are a transparent interface, an instructor who interacts frequently and constructively with students, and a valued and dynamic discussion.”

Putting aside for the moment the question of defining the success of online courses, would we agree that these are the key design factors? If so, what sort of characteristics of the interface, instructor and discussion do we need to be thinking about/promoting?

My own opinion, influenced by unpublished work in progress, is that the key to optimizing collaborative learning online lies in the learning tasks provided. Of course the moderator has to possess the necessary competencies (Salmon, 2000) and the virtual environment must be designed around on an appropriate pedagogical model, but it is the design and organization of the learning tasks which is the essential ingredient in facilitating the sort of active or engaged learning we have debated at some length on this forum in the past (IFETS, 2001).

## **Ludic participation**

### **Question 5: Are ludic areas just a nice design extra or do they play a role in getting learners involved and participating in online environments?**

Finally, moving to more specific aspects of learning environments I would like to refer to an area I believe deserves more attention - the role of virtual “student bars”, homesteads etc. which are found built into VLEs and learning platforms.

Personally, as a student on online courses, I have found that the idea of “dropping in” to a virtual bar/canteen to have a moan or share a joke and having my own “room” to decorate as I wish and invite visitors to, all go towards enhancing the feeling of individuality and of belonging to a community. This can make the virtual student experience a richer one and certainly helped me to log on regularly and to keep up my involvement with the course. On the other hand, fellow participants who “have not bothered” with these optional aspects appeared to successfully complete their courses and be satisfied with their learning achievements. I am not aware of research into this particular aspect.

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## Post-discussion Summary

### What type of online course benefits?

While José Maria Barberán amplifies the tentative suggestion in my paper and considers two classes of courses "those like mathematics, anatomy, law ..." and those like "sociology psychology and history..." with the latter benefiting more from collaborative work, David Kennedy challenges this sort of dichotomy and suggests that "if we want to accelerate learning we should aim to promote discussion" regardless of the nature of the subject. Bruce Jones reminds us that we need to consider both academic and corporate contexts and this raises a practical point which can be important to some online course providers: collaborative discussion and group-work imply a cohort of learners moving through a course and therefore a fixed timetable and course duration. On the other hand, the individual learner on a course could operate on a more flexible just-in-time basis and begin and end at any time. This can be attractive to course providers operating in a corporate context for example.

Rick Dilman asked some provocative questions:

1) Does evidence support the claim that group discussion is the best, or even a good, way to engender learning? (...) Unless this mode is extremely valuable, why bother?

2) Similarly, why is passive learning bad? If students meet their goals, whether these are to acquire certain information or to garner a certain number of credits, what difference does it make if they remain somewhat detached?" He explains that on a course of his, students are expected to "publicly display their knowledge" but that this not expected to necessarily lead to discussion. Bruce Jones comments that in his experience this is not adequate as is revealed when such students are unable to answer spontaneous questions from their peers.

Melissa Lee Price states that "most of our educational experience is passive, yet the research shows that in the educational exchange of: teacher - learner; learner-teacher; learner-learner the majority of the learning takes place in the learner-learner exchange" a point also made by Angel Medina. Bearing in mind Rick's question, and similar comments by Andrew McIntyre, I followed on from Melissa and Angel's comments to pose a pragmatic question: "When confronted by a skeptical colleague (or a cost-conscious senior decision-maker) what are the definitive studies you would cite to convince them that collaboration is the best route?" David Piper responded to this with arguments to convince decision-makers in a business training context, citing benefits such as reducing travel expenses, reducing drop out through isolation and the acquisition of important transferable skills.

The point which occurs to me in this regard is that, whereas in mature academic/scientific fields of investigation one usually finds major investigative studies which are recognized and accepted within the field and which support widely held viewpoints, in the area of online learning we do not seem to have arrived at that stage yet. There are various small/pilot studies which go towards supporting the view that many (but not all) of us here hold regarding the importance of the collaborative aspects of online learning but I perceive a lack of substantial authoritative studies on this (notwithstanding Stephen Downe's (2003) observation that "E-learning is more than a new way of doing the old thing. Its outcomes can't be measured by the traditional process").

Beverly Trayner has a different take on this and would "greatly mistrust any study that offered itself as the definitive study to show that there was (...) 'any best route for learning'" As Beverly sees it "It's an epistemological question and not one that could be resolved with any definitive study. Underlying any notion you have that collaborative learning is the best route is based on your assumptions about learning, teaching and the nature of knowledge." Beverly goes on to refer to some of the main theoretical works of the social-

constructivist theories of learning, situated learning and communities of practice which underpin current thinking on collaborative learning (Vygotsky 1978, Lave (1998); Brown, Collins & Duguid (1989); Lave & Wenger(1989)).

Bill Klemm, mentioning his webpage (<http://www.cvm.tamu.edu/wklemm/collab.htm>) of collaborative learning resources comments ruefully that "many people in higher education just don't "get it" when it comes to collaborative learning. No amount of evidence or argument will change their attitudes or behaviour."

Beverly reminds us of the very important point that collaborative learning is more than just discussion and can involve a wide range of activities: "analyzing case studies, carrying out or mini-research projects, interactive lectures, study contracts, team model-building, joint problem solving .... or ...?"

This is neatly illustrated I think by Vladimir Formichov's description of how he organizes his online maths course so that there are incentives for those learners "with high mathematical skills" to take on a tutoring/problem solving role for less mathematically gifted colleagues. Apart from the obvious benefits this can bring to both groups of students (and the course tutor) Vladimir also mentions that it can have the additional advantage that if two students involved are in the same time-zone and the tutor not, it helps speed up response time when a student is stuck with a problem (a salutary reminder of time-zone logistics problems).

Beverly concludes by putting a question which came up in various guises: "are there situations where collaborative learning is certainly NOT the best route (e.g. in places where cost considerations outweigh real learning ones)?"

## **Participation profiling features**

Janice Whatley is concerned that "monitoring student posting may have a negative effect on participation". I wonder if a well set out protocol explaining the motives and use of the profiling, which students read at the outset and sign, would go to allay such anxiety.

Bruce Jones has experimented with participation profiling and sees potential for it as "a learning tool" as does Mark Nichols, and I outlined a methodology I have employed for this. Ben Hyde raises the question of instruments to measure the activity of ROPs and suggests buttons which could allow them to quickly express a reaction to what they read. Ben mentions that Merlin and other VLEs allow us to see who have read a particular page. I commented that FirstClass additionally allows us to see who has printed out a particular page which can also be useful.

Ben also put forward an interesting suggestion regarding the benefits of access and participation statistics for each learner and tutor being made visible to all, given that VLEs like Blackboard already make this a possibility (and presumably when the Open Source resources of the Sakai Project (2003) are unveiled to an expectant world they will also provide this functionality).

## **Should learner participation be rewarded by grades?**

(I am grateful to David Kennedy for gracefully reformulating this question early on).

Naomi Petersen provided us with a clear pedagogical framework for looking at this issue.

She reminds us that "participation (...) is valuable in an education context only when it benefits the learning, not the grading, of the student." and she goes on to set out how course, syllabus and evaluation design should reflect this. Naomi also observes that "the community of learners" is an "important simulation of scientific scholarship". Naomi's comments serve as an important reminder of pedagogical principles which can often fall by the wayside in our concerns with the practical and technological aspects of online learning and for this reason I will quote her concluding paragraph in full:

"Therefore, to be graded, participation must be defined as a) learning procedure and/or b) examination procedure. What is to be learned must be articulated by the syllabus. How the learning of course objectives is examined will rarely receive a grade in itself, for it is the means to generate grades of performance for the topics discussed within it. At least, I have never heard of getting a grade for taking an exam. This leads to my final

point, which is that the means of assessment must be appropriate for the objective being assessed. Objectives of knowledge, of skill, and of disposition are not all measured easily nor equitably by the same procedure. This is a matter not of an online application of assessment methods, but of assessment literacy.” Naomi's point about making evaluation criteria explicit and transparent was echoed by José Maria.

Mark and others favour online discussion being "integrated into the mainstream of the course" and Janice gives the example of a module she runs where, although the discussion itself is not graded, there is a graded written work which can only be done from the discussion. David mentions that at the University of Paisley they award marks "based on the quality of the response to the discussion question" applying the PACE model (Sabin 2000). Apropos of this, Shane Dawson poses the question "Do you reward contributions made in face to face sessions whether lectures or tutorials?" while Bruce Jones asks "Is it good to apply behaviorist rewards and punishments to a constructivist environment?".

Jay Gould believes "online classes cannot be conducted without establishing a Code of Conduct" and proposes that a protocol could be drawn up based on the Loras College list of behaviors ([http://depts.loras.edu/StudentDevelopment/PLI/web\\_resources/group\\_dynamics.html](http://depts.loras.edu/StudentDevelopment/PLI/web_resources/group_dynamics.html)).

Deirdre Bonnycastle's maxim "Start with the course goals/objectives/expected outcomes" echoes earlier words from Naomi Petersen and Deirdre goes on to illustrate how on one of her courses discussion-related skills were assigned 40% of the mark while on another only 5 %.

Terry Andersen was kind enough to share with us some of his extensive work in this area which is due to be published shortly by Athabasca University in an Open Source book. He presents the useful concept of the online "teaching presence" and how it can be created and developed. He shares with us some current issues under debate in online teaching forums such as prescriptive assessment frameworks versus self-reflective assessment. The two detailed examples of the former are very interesting while the more learner-centred (and less time-consuming?) nature of the latter make it an attractive option for courses at graduate level as Brent Muirhead reinforces with his experience of students taking "personal ownership of their learning". Terry also mentions an ongoing debate around the acceptance of non-standard language in online postings by students.

Terry's final paragraph summarizes a number of the ideas raised:

“In summary, giving directions for and modelling effective online discourse is a critical component of creating effective teaching presence. Assigning a portion of the assessment for the class to participation is a common practice in online learning courses. If participation is to be a formal and assessed requirement of the course, then developing and implementing an explicit assessment framework are essential, but potentially time consuming, teacher tasks. Some online learning teachers make this assessment into a more reflective task by assigning students the task of using their posting in the class conference as evidence of their understanding of content concepts and intellectual growth during the class. This type of assessed learning activity forces students to make quality contributions, and then to reflect on them. This strategy moves the locus of responsibility from the teacher to the student, a solution that can save teacher time while contributing to student understanding and metacognition.”

## **Increasing and enhancing participation**

Mark Nichols reminds us that "rewarding participation with encouraging feedback works too" and he favors "participation through modeling" on the part of the facilitator and stresses the importance of modeling a responsive and reflective presence from the outset as "a shallow introduction earns a shallow response" .

From a pragmatic point of view, of course, many of us have to face the realities of institutions unwilling to pay for a tutor spending more than a minute or two per week per online participant. Bruce and others mention that facilitation online is a rather time consuming business and Janice goes one step further in questioning "whether a tutor needs to interact with a discussion (...); it is the students' discussion after all".

Steve Corich describes his experience as a participant in an assessed discussion where “it was clearly evident that course members who had English as their first language and who were used to open discussion were advantaged” and he suggests measures are need to address this.

Melissa Price, working in the UK, comments that "I found very early that students' previous educational experiences prepared them to be passive learners". I often hear similar comments about students in Portugal where I work and I recall a poster from India on this forum citing this as a major problem there. Melissa then describes how she has worked to motivate online students to become "intrinsic learners".

It would appear that passive learning strategies are perceived as a problem in a range of educational contexts. Bill Ellis compares graduate physics students in Edinburgh and those he encountered in the US and says he was "amazed at the lack of motivation (...) to learn" he noted with the latter; he puts this down to the methods used in the US K-12 second level system. Both Alfred Bork and Angel Medina tend to agree with this whereas Brent Muirhead believes that dedication in graduate work is a "variable that is difficult to accurately measure".

I noted a parallel between my observations and those of Deirdre and Melissa regarding very high levels of learner involvement which can result if collaborative learning tasks are appropriately designed. Angel Medina stresses the importance of cognitive aids and creating novelty in this process. At the same time, Ben makes the salutary observation that "tutor input can actually have a negative impact on student participation" and stresses the need for a "careful balance between silence (...) and saying too much".

Tracy Chao's question regarding how to encourage students to engage in dialogue rather than monologue in asynchronous discussion led Bruce Jones to suggest stipulating a word limit on contributions; Melissa favors a "gentle email" pointing out that long messages don't get read and distinguishing between "talking to the wall" and "talking with your fellow students".

Lorraine Wiseman believes that the VLE she has used with secondary school students which allows them to participate synchronously online much as they would in an active classroom session (writing and drawing on whiteboard, intervening in discussion, going to break-out rooms to work in smaller groups) encouraged them to participate actively and made it easier for shy students than the F2F context.

On the other hand, Gaye Kelly, working with mature adults, notes the problems they may have in developing the confidence to express themselves "publicly" online and stresses that "the need to provide choice is critical (...) and we must allow for different learning styles and paces" as well as considering "alternative means of reflecting and evaluation". This last was borne out perhaps by Jenni Harding's experience where a learner on her course, although perceived by Jenni and others to make an important contribution to group-work, was the object of a complaint by another participant who believed she should not pass because she had not "finished" the stipulated activities. Mitch Weisburgh questioned 7 working graduate students in the 24-32 age group and found a consensus that being graded for discussion participation gave them the discipline to contribute regularly and that "the process of writing to the discussion group made them think through the points they were writing about".

Jon Dron mentions the problems arising on his course when students enter discussion late and find it hard to contribute effectively. Christie Mason refers to the perennial debate about alleged high drop-out rates in online courses and reminds us that most studies referring to this do not distinguish between dissatisfaction with the VLE and dissatisfaction with the learning process per se.

Others have commented on aspects of asynchronous work - Melissa noted that in a study she did in the early 90's, students tended to prefer a video of a lecture to attending it live because of the flexibility; Eric Flescher mentions the need for incubation in problem-solving.

Joe Griffin deals with the problem of "free riders" by including the "audit trail" provided by asynchronous discussion threads as part of the evaluation process for his Professional Issues course. Apart from the fact that the online nature of the course allows his students to collaborate with students from other universities he has found some evidence that "students who are involved in virtual learning groups do develop a greater level of moral reasoning than those who are in face to face groups."

## **Ludic Areas**

Bruce has encountered student support for "informal areas of discussion" while Mark found "asynchronous chat more effective for social interaction".

From his experience, Ben describes how the "benefits to learning of increased social interaction were immense" and puts forward the idea of a "personal public space", similar perhaps to blogs. I believe the idea of

"homesteads" (a virtual house and yard which you decorate and fill as you please) used in some VLEs can perform a similar role.

### **Where to conclude this discussion?**

This additional issue raised by Ben Hyde neatly brings home to us how the medium can influence the accessibility, quality and volume of participation. I very much appreciate the stalwart efforts from Ben in proposing, setting up and maintaining the parallel Ubiquitous- d3e site ([http://ud3e.open.ac.uk/d3e\\_discussion.php?url=ifets.ieee.org%2Fdiscussions%2Fdiscuss\\_january2004.html&f=762](http://ud3e.open.ac.uk/d3e_discussion.php?url=ifets.ieee.org%2Fdiscussions%2Fdiscuss_january2004.html&f=762)). This has given us the opportunity to see the relative merits of an e-mail and web-based discussion around a document.

I would conclude by saying that although the questions posed in the pre-discussion paper do not by their nature lead to definitive responses, the sharing of ideas and practice from such a variety of educational contexts is invaluable in helping us to better define and develop our roles as educationalists.

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