

# **A Guide to Online Collaboration**

by

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# 1. In what curricula, disciplines or age groups is engagement theory most/least effective?

## 1.1 Engagement Theory

Engagement Theory is about team-working on meaningful learning projects that are of value to others. Successful online collaboration is dependent on the creation of a virtual team where each member has a clearly defined role to play and feels valued and appreciated for the specific skills s/he brings to the project. Kearsley and Shneiderman (1999) identify three core components of engagement theory:

1. The 'Relate' component is about team efforts that involve using communication, planning, management, and social skills.
2. The 'Create' component is about designing and working on learning projects that are stimulating and interesting.
3. The 'Donate' component is about the project you are working on being of value and benefit to the wider community.

'Online collaboration is a relatively new way of teaching and learning and most research to date is in the shape of small research reports and case studies. There do not seem to be any large-scale studies easily available on the Web comparing the effectiveness of using online collaboration in different disciplines and with different age groups.

However, a recent review by Marion Coomey and John Stephenson (2001) of 100 research reports and case studies drawn from a wide range of disciplines, including distance and on-campus courses for adults as well as children identified four features as essential for good practice in online teaching and learning.

They labelled the features: 'Dialogue', 'Support', 'Involvement', and 'Control'

The four features appeared in all the 100 papers examined.

These four themes map onto components 1 and 2 of engagement theory reasonably well, which suggests there are certain elements that

are 'universally' essential for successful online collaboration.

Dialogue and Support: Interaction between participants has to be a structured part of the course. Successful online courses have clear procedures for facilitator and peer feedback on performance. This maps onto the 'Relate' component of Engagement Theory.

Involvement and Control: There is active engagement with learning materials and collaboration with peers. Students have control over key learning activities. This maps onto the 'Create' component of Engagement Theory.

The findings of Coomey and Stephenson and the research by Kearsley and Shneiderman indicate that if certain vital criteria are fulfilled in the design of learning activities, online collaborative elements can provide enhancement in most curricula and disciplines, and are suitable for a range of student ages.

The 'Donate' component is missing from this mapping exercise, but if a broad definition is applied to 'a learning project being of benefit to the wider community' you could, perhaps, say that, for younger age groups, displaying your completed project at an end of term parents evening does benefit the wider community.

## **1.2. Is there a minimum age for the effective use of engagement theory?**

Can engagement theory be applied effectively in work with very young children, or is technology mediated collaborative project work only possible with children who have reached a relatively high level of cognitive development?

The 'Relate' component of Engagement Theory is about creating teams where members have clear-cut tasks and specific roles to perform. This suggests that children who have reached a developmental stage where they are capable of team-based role play, such as 'mummies and daddies' and 'doctors and nurses' should be able to engage in computer-mediated collaboration. At this cognitive skill level, introducing text-conferencing is of course not a suitable option, but research has shown that well-designed software using animations, sound and graphics can stimulate collaborative activity. Children prefer to work in a group around the computer, rather than alone. Well-designed activities stimulate them to engage in sophisticated verbal interaction, and they prefer to seek help from peers in the 'team' rather than from the tutor (NAECY Position

Statement: Technology and Young Children - Ages 3 through 8).

Interactive simulations, for example, allow users to role play games, explore complex situations and interact with objects in virtual environments (Repenning et. al, 1998).

The 'Create' component of Engagement Theory stipulates that learning should be a "creative, purposeful activity". This is probably a basic human need that is not age-specific. Adults and children had the same opinion when evaluating digital library resources for children. Both groups wanted searching for information to be a purposeful activity where what was found could be put to use in a meaningful way. All expressed annoyance with an animated on-screen help wizard who restricted creativity by offering patronising and simplistic suggestions for how information found could be used (SearchKids).

### **1.3. Getting started**

If you are looking to ease in online working slowly and gradually, Michael Green of Solihull Sixth Form College describes a learning activity 'Using "joined up thinking" to integrate Information and Learning Technology (ILT) into A Level English Language' with 16 - 18 year olds which could provide inspiration for designing meaningful learning activities, incorporating online collaborative elements. The activity he designed is tutor-led and takes place in a face-to-face setting, with students working for part of the time in pairs at PCs in a computer lab. In this case, online collaboration is a very minor feature, but the activity could provide a useful template for designing other types of activities containing more extensive online collaborative elements.

The case study is available to read online and in an easy to print format at: <http://ferl.becta.org.uk>

### **References**

Kearsley, Greg & Shneiderman, Ben 'Engagement Theory: A framework for technology-based teaching and learning'. Article available at: <http://home.sprynet.com/~gkearsley/engage.htm>

Coomey, Marion & Stephenson, John (2001) 'Online learning: it is all about dialogue, involvement, support and control - according to the research', in Teaching & Learning Online: Pedagogies for New Technologies, ed John Stephenson, Kogan Page, London, pp 37-52.

NAEYC Position Statement: Technology and Young Children - Ages 3 through 8

Available at:

[http://www.naeyc.org/resources/position\\_statements/pstech98.htm](http://www.naeyc.org/resources/position_statements/pstech98.htm)

Repenning, A., Ioannidou, A., & Ambach, J. (1998) 'Learn to Communicate and Communicate to Learn', *Journal of Interactive Media in Education*, 98 (7).

Available at: <http://www-jime.open.ac.uk/98/7>

SearchKids, Digital Libraries for Children

<http://www.cs.umd.edu/hcil/kiddesign/searchkids.shtml>

## 2. What skills do students need in order to effectively participate in collaborative activities?

Assuming that students are computer literate and able to make proper use of the VLE tools, the particular skills needed for collaborative work can be identified as such:

### 2.1. In asynchronous discussion

- the ability to disentangle threads
- the confidence to put forward an idea
- the grace to listen to others ideas and to be able to compromise when ideas conflict

### 2.2. In synchronous discussion

- the confidence to type without minding a few typos so long as the sense comes over,
- the ability to stick to the topic

### 2.3. When working on an aspect alone

- the ability to keep to an agreed timetable so that the finished product is not held up
- the ability to dissociate content, organisation/planning and private items in a discussion
- the ability to identify adequate media to communicate content and/or emotion (images, text, ...)

### 2.4. In general

Inter-Personal skills are as important in VR collaborative learning as they are in RL. Caring for the feelings of others, making an effort to explain in terms everyone will understand, thinking before taking umbrage. Depending on the type of course, the same applies to usual academic skills.

### 2.5. How should they acquire these skills?

These skills are general and important enough to be considered as part of the universal education. Students should be given the chance to

train themselves, either in a resources centre or through a pre-course training activity. They can also acquire these skills by joining in serious conversations in places such as Linguamoo or other topic focussed chat-rooms.

### 3. How should individual differences be addressed in collaborative work?

The OTIS online tutoring handbook states that 'learning style taxonomies' are a useful, but crude way of classifying people into learner types. People will move between types depending on the nature of what is being studied. Generally, online learning is most suitable for people who are independent and self-motivated. Support from a dedicated facilitator is important to cater for the needs of those who require a more structured experience.

The overarching objective when designing online learning activities should be the promotion of 'deep learning' where students engage with materials in such a way that real understanding is the outcome. The key in doing so appears to lie in providing as varied a learning experience as the technology at your disposal allows. A range of methods, task types and teaching techniques should be used to satisfy both active and reflective styles.

Smith and Kolosick (???) use four general categories of learning styles:

- Concrete perceivers who learn best through direct experience, doing, acting sensing, feeling
- Abstract perceivers who are skilled at analysis, observation, critical thinking
- Active processors who are eager to apply new information to facilitate tasks
- Reflective processors who prefer to reflect and think about new information

In their Engagement Theory article, Kearsley and Shneiderman (1999) talk of engaged learning, meaning that all student activities involve active cognitive processes such as creating, problem-solving, reasoning, decision-making, and evaluation. In addition, students are intrinsically motivated to learn due to the meaningful nature of the learning environment and activities. Their engagement theory is based

upon the idea of creating successful collaborative teams that work on ambitious projects that are meaningful to someone outside the classroom, and state that "These three components, summarized by Relate-Create-Donate, imply that learning activities:

- occur in a group context (i.e., collaborative teams)
- are project-based
- have an outside (authentic) focus".

Morten Paulsen (1995) identifies four paradigms (methods, techniques and devices) that can be applied in a CMC-based teaching system:

1. One-alone: Online Resources Paradigm
2. One-to-One: the Email Paradigm
3. One-to-Many: the Bulletin Board Paradigm
4. Many-to-Many: the Conferencing Paradigm

The fourth of these appears to be the one that is most relevant to collaborative work as set out in Kearsley and Shneiderman's Engagement Theory article, as Paulsen states that "all participants have the opportunity to take part in the interaction (1995)". Computer conferencing is the device used with this paradigm, and the pedagogical techniques include debates; simulations or games; role plays; case studies; discussion groups; transcript based assignments; brainstorming; Delphi techniques; nominal group techniques; forums; and project groups.

This range of learner-centred techniques fits the criteria for relate/create/donate, or can easily be modified to do so. Students are placed in a variety of collaborative learning situations where they can organise themselves, or be organised into groups and teams within which they can assume the roles best suited to their particular learning style/preference in that situation.

See, e.g. Teams that work

(<http://www.ee.ed.ac.uk/~gerard/MENG/MECD/gf1.html>).

Combining this range of techniques with push and pull technology should offer a varied learning experience and reasonably account for individual differences as learners are free to work with the material in the manner they see best, not as prescribed by the teacher. Adding an authentic dimension to the task should engage the student at a deeper level, as the task has a 'real' meaning and objective.

However, such a learning experience may not be ideally suited to every learner. With regard to computer mediated communication,

Anita Pincas talks about novel group discussion in a new temporal and spatial pattern. She refers to the students' need of "a framework to overcome the difficulty of seeing connections between messages that appear in a linear series unrelated by familiar signals like adjacency, speakers' gestures and expressions, response expectations in f2f situations, and so forth".

Furthermore, not all students are self-directed or experienced enough to be able to organise themselves and their work independently, as studies into andragogy (adult education as opposed to more general pedagogy) have indicated, so in order to take account of this difference, a course designer may wish to choose between the two major types of course framework, or perhaps use a mixture of the two.

Two major types of framework:

#### 1. Collaborative

- students do individual work but share it with each other in critical discussion
- syllabus is the outer boundary
- work-content may be specified so that students know what is expected of them
- week's work broken down into smaller segments
- each student can place his/herself exactly within the framework

#### 2. Co-operative

- students work together on tasks
- syllabus is the outer boundary
- students decide how to group themselves, how to work together and specific goals
- no fixed timetable, activities revolve around students' own work patterns

Therefore, teachers must decide how self-directing they expect their students to be. Will they set a fixed timetable with well-defined tasks so that each student knows what is expected of him/her, or will the students work to a flexible timetable and organise themselves and the tasks? There is a wide range of learner-centred tasks to choose from, but the task of the teacher is to choose those that will be of interest, and organise the authenticity of the tasks so that they are meaningful and of use to a greater community.

Perhaps the role of technology in learning in general is best summed up in the words of Smith and Kolosick.

"Technology makes it possible for students to learn according to their

own styles and to apply personal strategies. Once teachers could only hope that students would activate their internal ability to think about learning. Now the technology enables teachers to encourage and even guide activation of meta-cognitive planning and organisation strategies. It provides organizational structures for cognitive approaches to learning. It facilitates and establishes environments for social and affect interactions that would otherwise be difficult if not impossible in a large class."

For more information on what learner differences are see, e.g.  
<http://www.cyg.net/~jblackmo/diglib/styl-b.html#Introduction>

## References

Kearsley, G. & Shneiderman, B. 'Engagement Theory: A framework for technology-based teaching and learning'.  
<http://home.sprynet.com/~gkearsley/engage.htm>

Paulsen, M.F. 1995. The Online Report on Pedagogical Techniques for Computer-Mediated Communication.  
<http://www.nettskolen.com/forskning/19/cmcped.html>

Pincas, A. 1998. Successful online course design: Virtual frameworks for discourse construction. Languages in Education, Institute of Education.

Smith, K.L. & Kolosick, J.T. The Shift to a Learner-Centred University: New Roles for Faculty, Students, and Technology  
<http://www.saintmarys.edu/~psmith/ksmith96.html>

Online Tutoring Skills e-Book <http://www.otis.scotcit.ac.uk>

## 4. What kind of student evaluation methods are most appropriate to the application of engagement theory?

It is well known that assessment can have a great impact on learners' response to courses and on the way they learn. For this reason it is important to choose assessment methods which are in line with the overall structure and the objectives of a course. Indeed, as Erwin and Knight (McAlpine and Knight, 2001: 3) observe:

"If all other elements of the course point in one direction and the assessment arrangements in another, then the assessment arrangements are likely to have the greatest influence on the understood curriculum."

Nowadays the job market requires people, who are able to work in teams, handle information (rather than know everything) and collaborate. For this reason in the last few years there has been a growing interest in educational approaches that prepare learners for the requirements of the information society. In this sense online learning environments lend themselves well to an educational approach that facilitates student interaction, student centeredness and collaboration.

However, online learning is relatively new and the transition to new teaching and learning methods implies a series of adjustments also from the point of view of assessment. If, for instance, an instructor is planning to reorganise her writing course and introduce elements of project work, collaboration and peer correction she should also consider changing her assessment method accordingly. If in the past it was all right to assess just the essay written for the final exam, now she ought to consider various pieces of work produced by learners during the course for assessment purposes.

The aim should be to encourage learners to take advantage of the collaborative activities, online discussions and in general, of the exchange of information among peers which occurs during the course. It is therefore important that learners perceive that their engagement during the course has a value in terms of assessment.

Assessment needs to be valid in terms of what we teach and *engagement theory* provides a good starting point in helping define course objectives. Engagement theory in online learning basically aims at providing learners centred learning approaches which offer

them the opportunity to work collaboratively to define their project objectives around a task which has an 'authentic focus'.

Several forms of performance assessment that are in line with *engagement theory* can be used in the context of online learning:

- collaborative tasks: e.g. projects, reviews, summaries, online discussions
- portfolio
- student participation
- self-assessment
- peer-assessment
- essay writing

In online courses it is normal to see a mixture of these forms of assessment, and usually there is a balance between group and individual assessment methods. McAlpine and Higginson (2001: 3) point out that the choice of assessment methods depends very much on:

- who our audience is,
- why we are assessing,
- what we are assessing,
- how we are assessing,
- who is best placed to do the assessing.

An important factor in the introduction of new forms of assessment is giving time to learners to learn the skills on which they are assessed. For instance students who are asked to carry out collaborative tasks might find difficulties in adapting to what is for them a new way of learning. For this reason it is often better to introduce them gradually to new skills, as Macdonald (McAlpine and Higginson, 2001: 10) suggests:

*".... students are introduced to online collaboration in a two step process. Reflection encouraged in the first assignment is used as a preparation for the next collaborative assignment"*

One of the aims of engagement theory applied to online learning is to encourage students' participation. Many online instructors allocate marks to discussion contributions ranging from five percent upwards. One article that Joan read (I don't have the bibliographical info) gave 'grades' on participation as follows: (It was an undergraduate History course online):

### **Trivial contributions:**

mere question; a question that asks only on a point of fact or asks something that is in the textbook or in a lecture

Simple comment: parroting what's in the book or lecture. "I agree"

comments that add nothing, or a comment that 'there's this really neat reference on the net'

A historical reply: someone answers a question, but the reply contains only speculation and deduction and does not reference any sources  
Gee Whiz expression of amazement or surprise "Boy that Emperor Caligula was sure crazy"  
Off topic: messages that the web site appear to be down

### **Substantial contributions:**

Real Question: one that shows that the student has read the material but still is unsure of something

Real Answer: an answer that uses historical evidence

Real Comment: an observation or line of reasoning that uses material from the lecture, text or historical source.

Trivial contributions scored D; Substantial scored A or B, Messages falling between trivial and substantial earned a C. F was reserved for those who didn't even try.

It is important to consider that when the assessment load is great learners tend to participate considerably less or even drop out of discussions. A solution is to provide learners with guidelines and reminding them of assessment requirements.

"Students need clear structure and deadlines to help them maintain the discipline needed for participation in course discussion and completion of assignments (Hird, cited in McAlpine and Higginson, 2001: 36).

To conclude, when starting an online course that is in line with the principles of engagement theory it is important to think about the learning objectives first and then choose assessment methods that are suitable for measuring learners' level of achievement of those objectives. It is important to bear in mind that many learners might need some time to develop the skills needed to carry out activities on which they are assessed. Therefore it is useful to introduce them gradually to new forms of assessment. There no single best form of assessment that is suitable for assessing work online. A mixture of different assessment methods may be used to fit individual contexts, courses and teachers.

## Bibliography

McAlpine M. and Higgison C. (2001) "New Assessment Strategies",  
Online Tutoring e-book, <http://otis.scotcit.ac.uk/onlinebook/>

A.P. Rovai (2000) Online and traditional assessments: what is the  
difference?, The Internet and Higher Education, pp. 141-151.

## 5. Which component of engagement theory (i.e. relate, create, donate) is the most important in terms of different aspects of learning?

First an anecdote from Joan which illustrates the meaning of relate, create and donate in real life collaborative practice!

One of our primary teachers went on placement with our local pizza factory. He wanted to find real contexts for the children in data handling. I think they were Y4 – anyway they weren't very old. He invited representatives of the company to come into the school where they gave them a brief overview the company, how many pizzas they made in a day, how many people worked there and that sort of thing, the ingredients etc. and then they asked the children to do some research for them.

They wanted to know what was the favorite pizza in their range for children. They then had a 'tasting' where all the children in the class tried the products. They said that they would come back in a month to hear the children's findings.

They started off in class discussing questionnaire design, what questions would they ask etc. how they would hold the data once they'd collected it etc. The data collection form was amended after some trialing and problems identified. The children then had to collect their information out of class times, play times, after school etc.

They then built a simple data base; age and sex of children; pizza preferences etc. I can't remember all the detail, it was a while ago. Anyway, about a month later the people from the company came back to listen to the children's presentation. They'd prepared overheads and were able to demonstrate their database and spreadsheets etc and told the company their findings including that the favorite pizza of children their age was not available in the local shop while others in the range were!

The most interesting thing about this was that the teacher told me about one boy in the class who had basically been incommunicado, hadn't said two words all term. He blossomed during this project and

talked articulately during the presentation when questioned by someone from the company on a point of detail.

Primary teachers can do this sort of relate, create, donate brilliantly. Later phases of education have more recently seen the value of two of the elements 'create' and 'donate' too, although the relate component may often be confined to a single student and the customer, as in the following example

A student on a higher degree course in IT built an online brochure for a private hotel as the main element of his assignment work. He had to work with the hotel owner to ensure that he did not only produce a visually pleasing and easy to navigate site but also one with information that the hotel owner thought essential and the forms that met the hotel owner's needs when taking bookings.

This type of task is popular with universities as it generates income and is relatively easy to assess.

Examples of group collaboration in accredited work at higher levels are less easy to find (although anyone with a knowledge of history will know that a combination of both collaborative and competitive work at international level kick-started the scientific revolution of the seventeenth century and has kept it going.) I presume the reason for the widespread shunning of group engagement learning is that it is difficult to assess the individual for grading purposes.

From experience of working collaboratively at non-accredited level, though I have found that

The component 'relate' is useful in every aspect of learning

Relating well with other group members enables a student:

To put ideas and information forward as a basis for synthesis

To say when they consider something is going off course

To ask for clarification when something is not understood

To accept new ideas from other members of the group

If students feel uncomfortable doing this the group will have difficulties coping with the 'create' component.

(Important as this 'relate' component is, however, many students unused to the system might consider a large chunk of the course being taken up with just getting to know each other as not value for money so organizers of many courses have hit on the idea of calling the first week of a course a 'free' one. Much as we had a 'freshers' week at university)

Examples of Institutions adopting 'free weeks' are

<http://www.hull.ac.uk/merlin/>

<http://trace.ntu.ac.uk/school/>

The Create component is important during the fact finding, information exchanging, problem solving and synthesis stage of a project, where the work actually gets onto screen, paper, or, if a 3D tool, takes working shape.

The donate component, important in itself as a motivating force, is used initially in fact finding when researching the customer's needs, and at the self evaluation stages of the project, when checking that the created work matches the initial criteria

## 6. Preparing instructors to apply engagement theory

### 6.1. Introduction

The success of online learning is going to rest not only on how well instructors are able to use technologies but also on the design of their course. As the focus of online educators switches from technology issues to course content and to human factors the key role played by engagement theory becomes more and more evident. This view is supported also by Salmon (2000: 55):

*"A fair bit of rethinking of course methodologies, and of training and support for e-moderators, is needed for success. There are examples where, despite early adoption of CMC, courses reverted to old technologies. This is often due to the lack of support and development of teaching staff, or failure to manage the necessary organizational changes appropriately, or inability to train sufficient e-moderators for expansion and development"*

Social interaction and the collaborative element are two important factors in course design for online education. One way they can be included in an online course is to incorporate engagement theory as depicted in Kearsley and Shneiderman's model (1999). The question then to be asked is:

*How do we best prepare (retrain) instructors to apply engagement theory?*

## 6.2. Applying Engagement Theory to instructor training

The three components of engagement theory (relate, create and donate) are based on the way learning activities are structured. These terms give us a useful starting point for areas in which instructor training will need to occur.

**1. relate →→→** 'learning activities occur in a group context i.e. collaborative teams' (K&S 1999)

An instructor training programme will need to -:

- give instructors personal experience of collaboration as part of training
- identify skills that learners will need for collaboration 'skills such as project management, scheduling, time management, leadership, consensus-building, etc.' (K&S 1999)
- train instructors in how best to teach these skills
- give training in the area of moderating and facilitating. Remind instructors they may need to adopt different roles online and particularly in supervising collaborative work, compared to a traditional f2f classroom. Establish what these roles might be and the skills that are required for them. e.g. moderating through silence at times (Salmon, 2000: 15)
- equip instructors with skills and resources to enable them to be better facilitators
- raise instructors' cross-cultural awareness "Cross-cultural awareness stimulates recognition of the need to understand cognitive processes better, to become more receptive and more accepting of differing intellectual styles and modes of thought and to reduce the arrogance sometimes associated with traditional thinking. Groups from very different understandings, backgrounds, cultures and 'voices' will learn together and gain access to competing or contradictory ideas. A major role for e-moderators will be to enable surfacing, understandings and collaboration across cultures." Salmon (2000: 92)
- introduce instructors to other staff with whom they will be involved and try to establish clear objectives and positive interaction with technicians and administrators. Traditional teachers are used to relying just on themselves and can afford to make decisions at the very last minute. Here they have to take into consideration that for many decisions they are interdependent with other departments.

## 2. create →→→ 'learning activities are project-based' (K&S 1999)

In order for instructors to successfully help learners 'create' such projects, an instructor training programme will need to-:

- encourage instructors to plan well in advance and be very clear of the direction they are going. Also encourage them to give very clear outlines to learners of direction and expectations.
- show instructors examples of appropriate projects
- show instructors examples of activities which are conducive to collaboration and engagement among online participants. Salmon calls them e-tivities and provides a few examples in her presentation: <http://www.strath.ac.uk/Departments/CAP/courses/e-moderating/advancedem.ppt>
- expose instructors to different ways of setting up groups
- train instructors in helping learners in their initial definition of the project e.g. making a list of questions that learners can use as a checklist for their planned project
- demonstrate how to guide learners gently in appropriate directions, but making sure that they give learners the opportunity to make as many decisions as possible
- discuss different ways to assess learner's work as well as reliable methods of assessing.
- if the course is partly held FTF and partly online, then ways of integrating FTF and online components of a course in a meaningful way need to be clearly defined.

## ■ 3. donate →→→ 'learning activities have an outside (authentic focus)' (K&S 1999)

■ In order for instructors to successfully give learning activities an authentic focus, an instructor-training programme will need to-:

- give instructors lots of examples of these kind of activities i.e. good practice
- encourage instructors to brainstorm together opportunities for authentic focus
- facilitate engagement with appropriate community groups

### **6. 3. Content of training programme**

It is self evident that any instructor-training programme is going to be determined by its context and the needs of the instructors involved. However, many of the issues above can be dealt with by giving instructors the opportunity to go through the 'engagement process' themselves, preferably in an online situation. Collaboratively producing some kind of project relating to engagement theory, that can then be used in an appropriate context, will give them first hand experience of the issues their learners will have to deal with and the needs they might have.

In writing this piece of work, the authors can testify to the value of being actively engaged in collaboration to produce a project. As well as giving us an 'insider/learner' perspective, a number of the issues described above (particularly from 2. Create) were brought home to us very clearly, as we worked together to create a piece of writing.

### **6.4. Potential problems in a training programme**

Teachers are often not necessarily the easiest people to teach!

Problems that might be encountered when encouraging instructors to use engagement theory include

- resistance to change
- need convincing of the value of engagement theory

- feelings of inadequacy
- lack of confidence

## 6.5 Solutions

These are just some general suggestions, as again, the problems need to be dealt with very much in an individual context.

- It is to be hoped that it will be voluntary for teachers to be involved with online education in the first place!
- Becoming a learner is a useful step to countering some of the problems above. Going through an engagement process themselves will hopefully develop an appreciation of its application.
- It could help instructors to gain confidence if they started off by tandem teaching a course together with an experienced instructor who will make less experienced instructors feel more at ease in a slightly different teaching/moderating role to what they are used to.

## 6.6. Case study: 'engagement theory by induction'

### **An instructor reports on her experience with online learning and how she inductively understood the relevance of engagement theory in online learning**

My first experience with online learning consisted in moderating the online component of a module run by another instructor who was very interested in putting her name down on an "innovative project" but never cared to take a look at what the learners were actually doing in the CMC environment. The lack of the course instructor's involvement in what was going on in the virtual learning environment had a very negative influence on the student's engagement. Moreover the kind of activities that learners were asked to do were not integrated in a meaningful way in the overall course structure. As a result, this first experience was not very successful and did not fulfil my expectations about students' participation and involvement.

The next time I collaborated with a language instructor on integrating

CMC in her course I made sure that the criteria that had been missing in the previous course were taken into consideration:

1. the need for a **project** with an **authentic focus**
2. the need for an **integration of online activities** in the course structure
3. the **need for meaningful activities and for a project**
4. the need for a suitable form of **assessment** (continuous assessment)
5. the **need to train learners** for collaboration.

We organised a one-semester project which included meaningful and engaging activities dealing with job search and interviews. Learners were divided into groups and previous to group forming they were introduced to the importance of collaboration and **positive interdependence** through a series of activities. **Criteria** were set **for group division**: the group leader was to be the person who had most experience in the use of PCs (technical skills were required for this project and most students had very little experience and didn't feel confident). Moreover in each group there were to be 2 people who knew each other already but not be best friends to avoid creating cliques.

Result:

- learners were very motivated and the teacher observed she never had a group which worked so hard
- students were happy they had learnt a lot
- continuous assessment was introduced as a meaningful form of assessment considering that the project required from the students constant production of work during the semester
- attendance was made compulsory in order to avoid students falling out of the course during the project thus damaging other members of the group.

All in all this project respected the 3 criteria that Kearsley and Shneiderman (1999) mentioned as leading to successful projects:

1. occur in a group context (i.e. collaborative teams)
2. be project based
3. have an outside focus (in this case prepare for job interviews, have their web page published, learn skills that would be very useful in the job market).

## **6.7. Conclusion**

The field of online instruction is still relatively new, and good instructors are still in the process of 'becoming'. The three aspects of engagement theory provide a useful base for structuring an instructor-training course. It would be ideal for instructors to have to become learners and to go through the relate/create/donate process themselves. Experience gained in this way would be a logical starting point to the process of 'becoming' a good instructor.

## 7. What kind of groupware (collaborative software tools) would best support engagement theory?

Given that Engagement theory 'is based upon the idea of creating successful collaborative teams that work on ambitious projects that are meaningful to someone outside the classroom' (Kearsley & Shneiderman, 1999), it is implied that any selected groupware will have to support learning activities that will:

- occur in a group context (i.e. collaborative teams)
- be project-based
- have an outside (authentic) focus

Of the wide range of groupware that is currently available, the following categories seem to be particularly appropriate on different levels:

### a) web-based

- to support and facilitate group communication: web-based conferencing systems (synchronous/asynchronous), email, video and teleconferencing, bulletin boards
- to support and enhance group decision-making procedures: mind-mapping software, decision support systems (DSS & GDSS), web-based synchronous and asynchronous conferencing systems, shared whiteboards, groupware toolkits

### b) Intranet-based

- Documents Sharing
- Access Control
- Organization Chart
- Event Calendar, Scheduler
- Message boards
- Address Book
- Search Engine (Intranet)
- Task Management
- Customizable Interface
- Individualization

## References

Tom's SCW & Groupware Index. Available at

[http://www-users.cs.york.ac.uk/~lsb/courses/ctw/cscw\\_index.html](http://www-users.cs.york.ac.uk/~lsb/courses/ctw/cscw_index.html)

Internet Group Communication Tools. Available at  
<http://www.december.com/net/tools/index.html>

Types of Collaboration Tools. Available at  
[http://engdb.tripod.com/kedb/process/coll\\_type.htm](http://engdb.tripod.com/kedb/process/coll_type.htm)

## 8. How does engagement theory 'scale up' for large classes and many simultaneous courses at the same or different institutions?

How does engagement theory 'scale up' for large classes and many simultaneous courses at the same or different institutions?

Kearsley's theory is nothing new in terms of Learning Models but does have its limitations in terms of large numbers of students accessing 'learning' through the internet. Relatively little research has been done on large numbers of students (over 200 plus) using the internet as a vehicle for instruction. The research that has been carried out tends to focus on numbers below 100 (Warschauer, M. 1997).

[http://www.aln.org/alnweb/magazine/vol2\\_issue2/Masonfinal.htm](http://www.aln.org/alnweb/magazine/vol2_issue2/Masonfinal.htm)

The University of Hong Kong however uses video conferencing widely (Training Trainers) over a large number of participants from a variety of different countries. I have yet to read any research from them on the success or otherwise of their projects.

Here in Malaysia we are currently looking at how students cope with online learning in three different modes of delivery:

- a) Online alone
- b) Online with a facilitator
- c) Online /on Campus

The numbers involved in the study are 1000 plus students. The course is an academic writing course for multilingual language learners.

We have been following forty plus 'distant learners' who access their materials online without a facilitator. The course is written to enable students to form groups as part of the course content. It is written in an 'Engagement Style' of learning and provides opportunities for students to form groups carry out tasks, peer mark etc... This course usually attracts 'older' students who are working and need the English component as a requirement to obtaining an MBA (distance/online )

The second mode currently has over 1000 students and we try and

provide one facilitator to every forty students.

This puts an enormous strain on the facilitators and depending on the students response and ability to work independently has an effect on the eventual outcome of the course. Students do get lost on the way and unless the facilitators are actively involved, feedback suggests a degree of unhappiness on the part of the learner.

The third mode seems to be the most successful. Blended learning (online on campus) offers an opportunity for learners to meet face to face and to communicate online. Lectures are given using the video conferencing facility and feedback is provided from the students either through the discussion board or informally through the chat facility. We are currently offering this mode as a preferred method of learning to a new group of students beginning on 23 June 2002. The average age of these students is 20 plus and the numbers will be 1000 plus.

Each of these three groups of learners is able to access each of the three course rooms and chat facilities.

Large groups present particular problems in terms of organising them quickly into workable groups. The how and who determinants are often the most crucial aspect to the course being successful. The introductory unit of the course has been written specifically to set up groups and to engage the students into taking responsibility for each other and the work produced. Apart from the obligatory assessments (2) all work is peer marked and all questions written in a way that encourages students to discuss deliberately and think about through collaboration. The course is written in steps with the specific intention of encouraging students to see that learning is a process of discovery, practice and doing. This is then followed up with feedback and discussion.

This third mode (blended learning) has its problems but so far it would appear that as the students are mainly able to chat online (most use ICQ) with many people at once and most seem to email 100's of friends sharing ideas and or music etc.. they are well able to contribute to the course where the numbers within their own group is up to 40. Students are much more open to this type of learning in our experience than teachers. With their ability and expertise of communicating online informally they see it as 'quite natural' to incorporate the method of communicating into their studies.

As a result of our own experience here is a guide to managing large numbers of learners effectively as online learners on simultaneous courses.

Crucial to the success of any course is the time and money spent training

the on line facilitators. This should be also an ongoing training. Support and feedback for facilitators must be built into the overall course structure or design and finances.

<http://www.ascilite.org.au/conferences/perth97/papers/Wills/Wills.html>

The course content should reflect the desire to encourage the learners to engage with other students as a 'must' to be successful. The learner should be encouraged to explore the benefits gained from supporting and participating as active members of the group.

Course materials should reflect the desire to explore practise and perform tasks. The tasks should be the result of group activities and shared experiences.

The materials need to provide the learner with the opportunity to be active and independent learners. Also to encourage them to go outside the course for information. <http://members.tripod.com/~Roberta/online.htm>

Encouraging learners to communicate outside their own learning environment with students on similar courses has a positive effect and encourages students to develop a sense of self discovery.

Study skills are an important part of a successful large scale course and the materials should reflect this. (It's no good writing in a peer marking exercise if students don't know how to do it!)

<http://www.oaa.pdx.edu/CAE/FacultyFocus/spring96/bulman.html>

Guidelines for behaviour online also becomes vital with a large number of students and these are best drawn up by the learners as part of the introductory unit.

<http://www.fau.edu/divdept/found/EDG6255/index.html>

Finally, large numbers and simultaneous courses present online or off line the same problems. These problems (staffing, marking, student contributions) need the same careful consideration in both mediums. The advantage it would appear for the online learner is that the choices are wider and the experience more diverse as the opportunity to talk with other learners outside their daily experience surely must be a plus for any learner:

<http://www.ascilite.org.au/conferences/perth97/papers/Wills/Wills.html>

As Kearsley points out the area of large groups and multi courses is an area that still needs careful research and careful thought.