

# **Sustaining Groups and Communities in a Networked Learning Environment:**

***From Computer Supported Cooperative Learning to  
Collaborative Groups and Communities.***

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# My Background

- Designer of online e-learning (distance learning) courses for teachers in higher education, with a special interest in group work and learning communities
- Online tutor
- Educational researcher: online groups and communities

# Structure of the Presentation

- 1. The emergence of computer supported cooperative learning
- 2. Theory: collaborative groups and communities
- 3. Example: Masters in Networked E-Learning -Design Features
- 4. Conclusions

# 1. The emergence of computer supported cooperative learning

# CSSL

## Theoretical Contributions to Socially Oriented Theories of Learning (1)

- *Constructivism*: cognitive development through peer interaction (*after* Piaget). Knowledge actively constructed & connected to learner's individual cognitive repertoire. Vygotsky's "*zone of proximal development*": learner's ability is enhanced when they work closely with someone more skilled than them self. Their potential development working alone is less than what they can achieve when working under adult guidance or in collaboration with more capable peers (Wood & Wood, 1996).
- *Social Constructivism*: knowledge is constructed in social groups.

# CSCL

## Theoretical Contributions to Socially Oriented Theories of Learning (2)

- *Situated Cognition*: knowledge is embedded in particular contexts, such as professional contexts.
- *Communities of practice* (CoP) have embedded in them knowledge about practice, and learning is seen as the process of entry into that community. *“Learning is a process that takes place in a participation framework, not in an individual mind”* (Lave & Wenger, 1991, p15). Meaning is derived by negotiation. Knowledge is fallible and non-absolute.
- Learning involves a process of “reification” through which the members share and learn from each others’ experience. Practice is captured and made visible and shareable, and it is argued this helps it to persist over time.

# CSCL

## Theoretical Contributions to Socially Oriented Theories of Learning (3)

- These influences point to a **fundamental shift** in our perception and understanding of learning (away from a view of the learner as an individually situated person, and the view of learning as purely 'cognitive'), which in turn influences and helps to define our **pedagogical methods** and approaches.
- CSCL as an emerging new paradigm of learning draws on these movements and theoretical contributions to help construct its **epistemological stance**.

# An Educational View of Cooperative Learning

" the opportunity to learn through the expression and exploration of diverse ideas and experiences in cooperative company.....it is not about competing with fellow members of the group and winning, but about using the diverse resources available in the group to deepen understanding, sharpen judgement and extend knowledge." (Cowie and Rudduck, 1988, p 13).



## 2. THEORY OF GROUP AND COMMUNITY LEARNING

- Two Aspects:
  - A: Benefits of cooperative group work to learners
  - B: The role of communities in learning

# A: Cooperative Group Work: Learning to Learn from Others

- *It is not enough to learn how to direct one's own learning as an individual learner abetted by artefacts such as textbooks. Learning to learn in an expanded sense fundamentally involves learning to learn from others, learning to learn with others, learning to draw the most from cultural artefacts other than books, learning to mediate others' learning not only for their sake but for what that will teach oneself, and learning to contribute to the learning of a collective. (Salomon & Perkins, 1998, page 21).*

# The Nature of Learning and Achievement

- Student learning is usually COMPETITIVE and INDIVIDUALISTIC
  - But what about COOPERATIVE and COLLABORATIVE GROUP learning?
- How do these two forms of learning differ in terms of the outcomes of student learning?
- QUESTION:
  - What is the impact on *achievement* of **competitive**, **individualistic** and **cooperative** learning?

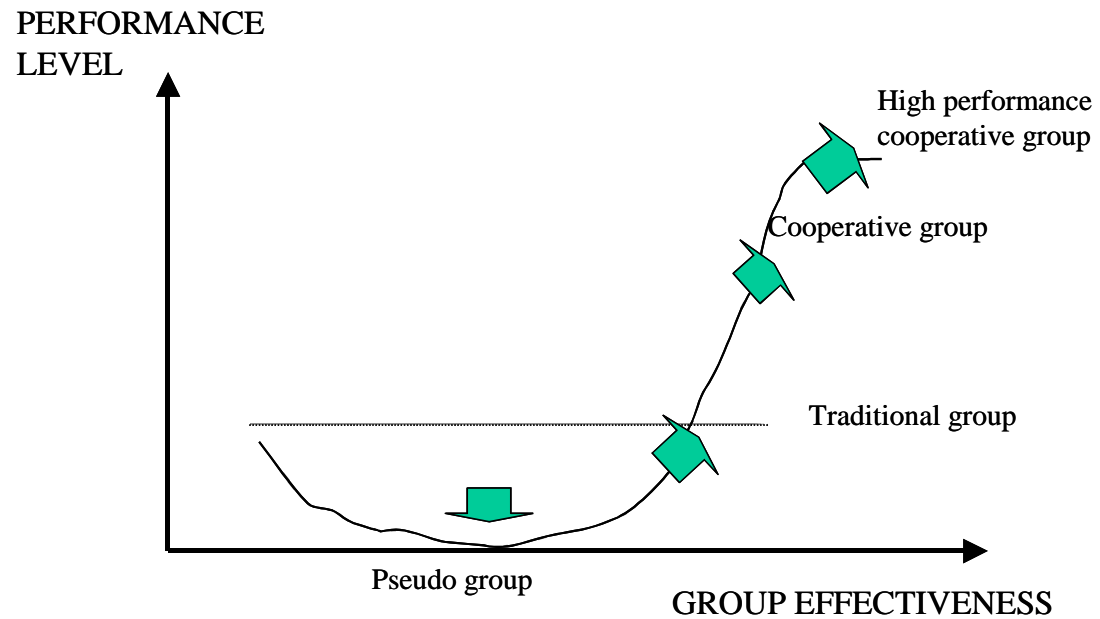
# What is the impact on ***achievement*** of **competitive, individualistic and cooperative** learning?

(Johnson and Johnson, 1990;2003)

- *In cooperative/collaborative learning:*
- **Mastery and retention of material:** *higher in cooperative learning environments*
- **Quality of reasoning strategies:** *focusing strategies are used more often in cooperative learning; higher level reasoning greater; problems solved faster*
- **Process gains:** *production of new ideas greater*
- **Transference of learning:** *group to individual transference is high*

# Group Performance Curve

Johnson and Johnson, 1994



# B: Learning Communities

- Sociocultural and constructivist views of learning (*eg Lave & Wenger; Wenger*)
  - Learners learning together
- Two important questions
  - “*What social engagements and processes provide the ‘proper’ context for learning?*”
  - “*What forms of co-participation might be required when engaging learners in these forms of learning?*”

# Four Different Kinds of Community

- Learning community: *focus on learning together, sharing, developing relationships*
- Community of practice: *focus on developing professional practice*
- Community of inquiry: *focus on enquiring about an issues/area*
- Knowledge community: *focus on developing knowledge*

# Teachers Intentions and their Effects on Students

“Whatever lies behind the intention of each concept of ‘community’ will determine to a great extent how we go about designing for learning and teaching, and what eventually counts as learning, when we come to use the different concepts in practice.

Each definition of community has embedded in it a set of values and beliefs that govern what is expected of the members of the community. We therefore need to be careful about specifying what kind of community we want and how that relates to the learning goals and purposes we are trying to achieve.”

(McConnell, D. 2006)



# What is a Learning Community?

- Learning community: *members attend to issues of climate, needs, resources, planning, action and evaluation - ie democratic processes of learning together*

# Cornerstone of Community

“..the cornerstone of online community lies in the presence of “socially close, strong, intimate ties”, the development of trust, and shared values and social organization.

**The *quality* of peoples’ relations is an important characteristic in an online community.**

In designing e-learning courses based on groups and communities we should therefore be aware of the need to incorporate these desired characteristics into the teaching and learning processes. A key question to answer is: how do we design distributed networked e-learning so that it supports those values and beliefs of learning communities we hold to be so central to our practice?” (McConnell, 2006)

### 3. From Theory to Practice

- ***The Masters degree in E-Learning***
- MEd: two years part time
- Completely virtual using WebCT
- Focus on developing a reflective research practitioner community, in learning & teaching via the Internet

# Masters Degree: Holistic Design

*Matching learning processes & values to the technology*

- group and community perspective
- synchronous and asynchronous communications
- shared workspaces, and document sharing/production
- collaborative/shared knowledge production
- collaborative self-peer-tutor assessment processes
- collaborative evaluation of the experience of learning and teaching

# Design Features

- **Strategic scaffolding of learning:** at macro level (Phases); micro (group work) level
- **Community spaces:** eg plenary networking; workshop reviews; dissertation presentations and reviews
- **Group spaces:** eg e-seminars; collaborative projects; personal assignments; self-peer-tutor review and assessment; scaffolded discussions; free ranging discussions
- **Workshop Reviews:** collective evaluation and design
- **Cafe:** chat, sharing photos, exchanges
- **Resources:** journal papers; photos & biographies; Web links; library

# Masters in E-Learning

Design of the Sheffield Two Year Virtual Masters to support a learning community

- Workshop One (*community/AR*)
  - Phase One: Our collective purposes. The Community. Action Research
  - Phase Two: Plenary discussion and analysis
  - Phase Three: Collaborative project in learning sets
  - Phase Four: Collaborative reviews and assessments
- Workshop Two (*CSCL/CMC etc*)
  - Phase One: Review of WS1 & Learning set formation
  - Phase Two: Cooperative assignment
  - Phase Three: Collaborative reviews and assessments
- Workshop Three (*Internet as learning environment*)
  - Phase One: Review of WS1 & 2
  - Phase Two: Collaborative project
  - Phase Three: Cooperative assignment
  - Phase Four: Collaborative reviews and assessments
- Workshop Four (*Designing for research and evaluation*)
  - Phase One: Review of WS3 & learning set formation
  - Phase Two: Personal AR mini project
  - Phase Three: design of AR dissertation
  - Phase Four: Collaborative Reviews and Assessments
- Workshop Five (*research dissertation*)
  - Phase One: Review of Ws 4
  - Phase Two: Dissertation
  - Phase Three: Collab review & assess

## 4. CONCLUSIONS (I)

- Networked Learning offers new opportunities for distance/global education, and on campus education
- Networked learning requires new and innovative course designs focusing on groups and learning communities
- Teachers producing networked courses need to develop new pedagogies
- We need to research our practice (as ‘research practitioners’) and develop theory about e-learning

## 4. CONCLUSIONS (II)

- Learning theory is important when you design online e-learning
- The relationship between theory-led designs and learning experiences and outcomes is complex and requires research in order to understand it



# Thank you

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