

Challenging the traditional theorisation on group development: An international online perspective

Lucilla Crosta+, David McConnell

+Department of Educational Research, University of Lancaster, Caledonian Academy, Glasgow Caledonian University. l.crosta@lancaster.ac.uk, david.mcconnell@gcu.ac.uk

Abstract

The intention of this paper is that of describing and analysing through a comparative case study, how online learning groups may evolve into online learning communities. The contexts chosen were two respectively blended and online Master courses in education delivered in Italy and United Kingdom (UK). The Research involved the use of Grounded Theory analysis of the text messages exchanged in the designated course forums. The paper will present some theorization about online learning group development and design, it will then illustrate the characteristics of this study and then its final findings and comparisons challenging the more diffused theories on traditional and online group development. The theory building process at the basis of this work involved the construction of new categories representing the uniqueness of each group and the presence of "stage of developments". The main findings are three different Group Developmental Models: a product-oriented model, a product-process oriented model and a process-oriented one. This work stresses the uniqueness of each virtual group and the influence played by the course design of the country in which each course sits, they are central for the future development of these groups

The study proposes new theorization about group development with new implications for teaching and learning online:

1. despite each virtual group being unique, its development can be described through key stages and key characteristics crucial to identify the group achievements.
2. virtual groups develop with different stages than face-to-face ones;
3. virtual groups develop according to the characteristics of the context in which they are embedded and to the course design applied in practice;
4. e-learning practice should not underestimate the influence of elements such as: the tutorship, the social relationship, the assessment, the course design, while designing for virtual learning groups; technology plays just a partial influence;
5. the complexity of the development of virtual learning groups suggests the use of an holistic, qualitative and grounded research approach which preserves differences and makes each group development unique too.

Keywords

Online Group development, theorization, grounded theory, international comparison

Introduction

This paper aims to critique the traditional theorisation on group and online group development, proposing a different explanation and approach. The paper presents research which compares two different online groups and their development. This study challenges the more diffused and well known theorisations about group development, as for example those by Tuckman and Jensen (1977) and Salmon (2002).

The present study asserts that online group development does not pass throughout Forming, Storming, Norming, Performing stages as face-to-face ones (Tuckman and Jensen, 1977), but it states that stages of development vary in number and in kind according to a multiplicity of factors. Online tutorship, design and assessment-anxiety are key in this, while in face-to-face environment it is argued they do not play such an influence.

In the same way, Salmon's e-tivities model (Salmon, 2002), well known in international academic online practice, is here challenged too. This study showed that each developmental stage is the result of a mixture and interconnection of elements, where development is a continuous ongoing process starting from the very early

stage. Salmon, on the opposite, rigidly gives emphasis to a single isolated element per stage, losing the complexity of the process. At the same time she reaches a full development just in the 5th stage, forgetting that the process is itself under continuous development.

In conclusion, this study presents important implications for online practice. This work shows that design, tutor role and assessment-anxiety are key in describing and foreseeing the online group development. The degree of autonomy left to participants, the more or less participative tutor's role and the presence or absence of anxiety around assessment, make a big difference in the kind and duration of development we can envisage for an online group.

This work constitutes a first attempt to produce "Models of reference" able to explain how virtual groups develop in two different learning environments. The relevance of some key and influential elements for this environment is stressed too.

A critique of some Literature on group development

The most influential theory about "in presence" learning group development is Tuckman's theory (Tuckman and Jensen, 1977). He undertook his research on a small-group as a Research Psychologist at the Naval Medical Research Institute, (Bethesda MD USA - 1963-65). Using an experimental research approach he discovered in 1965 four developmental stages of small groups (Smith, 2005):

- 1) Forming: the group members assess both the relationship and the norms in the group;
- 2) Storming: group hostility and conflicts arise because of autonomy and leadership seek;
- 3) Norming: interpersonal activities are more cohesive and define members' behaviour; there is an increase in exchanging information;
- 4) Performing: there is the development of a sub-culture where participation works together with the minimum emotional interaction during task completion.

Tuckman's model is hierarchical, so that the following step cannot be reached if the previous one is not accomplished. Miller (2003) adds that groups are systems often changing in their social process and context with a developmental dynamical nature.

Tuckman's theory is considered the most important and the most diffused on group development. However, because of its dated discovery, because of its context (more related to psychological and organizational than to educational contexts) and the experimental approach used (rather than interpretivist one), it presents some limitations in the context of educational studies, and in networked learning in particular.

Indeed, this major quantitative study was integrated in more recent times by more qualitative research. However while some authors (Pallof and Pratt, 1999; Fisher *et. al.* 2000; Gunawardena *et. al.* 2001; Johnson *et. al.* 2002) use Tuckman's theory about group development and apply it to the online learning environment, some others (Salmon, 2002; McConnell, 2006; Moore *et. al.* 2006; Brown, 2001; Wenger *et. al.* 2002) assert that the developmental stages of online groups are significantly different from that of traditional face-to-face ones and suggest new theorization about group development in virtual learning settings.

An example of the above theorisation is Salmon's Model of e-moderating (2002). Salmon presents and discusses five steps needed for a tutor to effectively moderate an online group. Although this theory is not focused on online group development solely, it provides interesting reflections for this work. Salmon lists five chronological activities called e-tivities as illustrated in Figure n. 1.1: 1. Access and motivation, 2. online socialisation, 3. information exchange, 4. knowledge construction, 5. development.

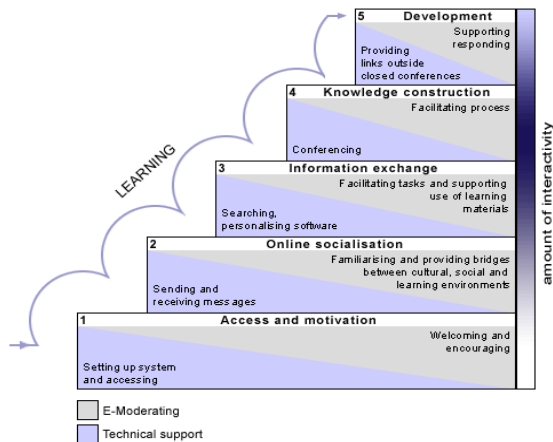


Figure n. 1 E-tivities Model (Salmon, 2002, p.10)

In each e-tivities there is a certain degree of e-moderation and technical support. Salmon asserts that the following step cannot be reached if the previous one is not accomplished. However, this framework might appear rigid and incomplete if we consider that each step can be the result of a mixture of different elements and that it is not determined by just one factor. For example, development described at step 5, could be considered instead as a continuous and ongoing process taking place in all the e-moderating stages. In the same way, information exchange, knowledge construction, development could all be considered additional elements of online socialisation in step 2. Hence, in our view, the e-tivities model has a certain degree of rigidity and represents just a partial view of a more complex reality about online group learning.

Finally, another important and recent theory about the development of e-learning groups and communities is McConnell's (2006). He draws from his experiences while dealing with online learning groups in academic settings and uses a grounded theory approach for studying the development over 13 weeks of online group work. He focused on four main developmental phases with several numbers of sub-stages:

- Phase 1 – Negotiation: this long stage is characterised by collaborative negotiation involving all the members of the group;
- Phase 2 – Organizing: this medium-length phase is characterised by sub-grouping and cooperative work;
- Phase 3 – Production: this short stage is characterised by the production of common work.
- Phase 4 – Reflection: members reflect on their learning and on what they did. (McConnell, 2006, pp. 154-155)

Inside each phase there is a continuous movement and a blurring between one phase and the next ones. The overall view and schema presented by McConnell (2006) is a complex one and tries to represent with an holistic approach, the reality of online learning settings. This model involves the presence of several other elements and milestones. He defines the last as a point in the group-work when something crucial happens (i.e. the group making important decisions, an event helping focus on the group work). McConnell's idea of "milestones" can be considered as innovative and it also inspires the systematic data analysis approach used in the present study.

In conclusion, although this field clearly needs further researches, the present work represents a possible contribution to link the practice observed in the field with the theory and to contribute to filling the research gap on virtual groups and communities.

The Research work

The study reported here examines how groups of learners develop online in different international post-graduate courses - an English Masters (referred to as EM) and an Italian Masters (referred to as IM).

The choice to carry out this research comes from the experience that one of the authors (Lucilla Crosta) had as an online student and as an online tutor. Crosta wanted to improve her practice in distance teaching and learning and her knowledge in “online pedagogy” and “virtual group learning” since little research was available on these topics.

This research intended to build new theorization and to find out how virtual groups develop into a learning community, comparing this developmental process between the two countries.

The first research questions evolved as an ongoing process during the grounded analysis. Initially the research questions were quite broad and took into account more general issues. since there was no precise idea of what would be found in the data. They were as follows:

“What are the characteristics of learning in each specific contexts/settings? How does the learning process take place and why?” Later on, when the data clearly showed the online group was evolving online, the questions were better focused and better identified in the following way:

“How does the group develop online towards a collaborative learning community?” and “What differences/commonalities can be found in the English Master and in the Italian Master contexts?”. “What are the main relevant features to consider which may help to better understand the collaborative learning online process and the development of e-groups into online learning communities?”

However, during the analysis further insightful information was collected regarding:

“Is there a coherence between the theories which people are using in designing courses and actual practice in teaching and learning on the course? Is there any coherence between the objectives stated and the outcomes achieved?”

The methodology used was a qualitative and comparative case study. In practice, data were collected through the transcripts participants posted online, through some interviews and through some documentation and past researches. Since the intent was that of building a new theorization, the analysis of the different online text forums was done with the help of a Grounded Theory approach.

The comparative approach used, in order to research two different contexts, was aimed to the search of similarities and differences (Hantrais, 1995) without expecting to transfer the findings from one context into another one.

Constructivistic grounded theory was used in order to build theory from the “ground” with a continuous interplay between the data and the researcher. Reality is seen here as socially constructed between the viewer and the viewed (Charmaz, 2003, Charmaz, 2005) and not as a given truth. This assumption allowed the use of a flexible approach to interpret and compare data and to let the initial broad research questions to evolve into more specific and ones.

The issues of validity, reliability and generalisation were approached with consideration to the specific case of grounded analysis and so making the process explicit with the collected and analysed findings. Charmaz’s (2005) four criteria of validity and reliability (credibility, resonance, originality and usefulness) were used as referring points in this work.

A different variety of research methods were used (individual, group, unstructured and semi-structured face-to-face, telephone, tape recorded interviews, documents and research collection, critical friends) although with the same degree of presence for the IM (Italian Master) and for the EM (English Master). Furthermore, the issue of the language was also very important and influential while dealing with data available in English.

Finally a narrative style of analysis was used in order to provide a possible theorization rather than a simple description and narration. Interpretative validity was assumed here, which refers to the meanings which cannot be directly accessed from the data but they are constructed in a continuous ongoing process by the researcher (Norris, 1997).

The research context and findings

The present study is conceived as the combination of two case studies compared in their contexts, characteristics and findings. Each case study refers to a different country: in more detail, the IM blended course refers to the Italian context, while the EM online course to the English one. These two courses ran respectively in 2004 and in 2001. While in the first case one of the authors played the role of a participant observer and of online tutor, in the second case the same author was a simple non-participant and asynchronous observer.

In the final research stage, with an attempt to answer the previous research questions, we can state that the online group develops by passing through several different “chronological” developmental stages, different in kind and in number according to the degree of influence played by several factors in context. These stages are not interchangeable, in a sense that the 1st one cannot occur after the 3rd one, but it has to follow a precise order for the group to achieve its objectives and eventually to become a learning community.

The research suggests that for a virtual group to reach the status of an online learning community there is the need to pass at least through 6 stages of development characterised by a mixture of production of artefacts and attention to the learning process, with a special emphasis on the latter. In this framework the attention to the development of the first stage is crucial for the development of what follows. This is what we call the “Process Oriented Model”. On the other side the more “Product Oriented Model” presents a development characterised by 4 or less stages and it is much more focused on the production of artefacts rather than on the learning process itself. The “Product-Process-Oriented Model” presents instead, characteristics in between the previous two.

The comparison between the Italian and the UK contexts helps, instead, to better understand the differences and the commonalities of each group development. For example, the Italian context is characterised by a more traditional approach to teaching and learning, where the teacher is still at the center of the process and where the face-to-face lessons are still a key element. On the opposite, the UK context is characterised by a more innovative approach where students seem to be at the center of the learning process and where distance lessons become the main and unique way of the delivery learning. In the Italian context competition between learners seems to be placed next to collaboration, while in UK collaboration between learners seems to prevail. All the above features contribute to determine the development of the online group too. However, the Italian context presents two developmental Models (the Product and the Product-Process one) rather than the one in UK (Process-Oriented-Model) representing perhaps the moment of transition Italy is facing in e-learning: from a more traditional approach, to a more innovative one.

However, both contexts have in common some key influential elements and features for virtual group development. They are: the culture, the tutorship, the group collaboration and the group autonomy, the technological anxiety, the social relationship and the assessment. These all are part of the development of each virtual group, although they are present with different degrees of intensity in each stage and in each Model. Surprisingly, in this analysis, the technology plays just a partial influence since the way the design is applied into practice becomes a determinant of the eventual group process. Indeed, for the virtual group development, coherence between what is stated in theory and what is applied in practice is striking. Lack of coherence in the pedagogic design may confuse learners about what is expected of them in terms of learning achievements.

The table below summarizes and compares all the three models and their categories. These categories try to give voice to the realities of each course in every context. All these elements are interconnected, and each influenced the other like a system, so that if one is modified and placed in a different position on its continuum, the others are modified as well. Hence, because of the complexity of the system, the change produced in one category will reflect a direct change in the others and vice versa.

	IM- ITALY		EM-ENGLAND
Model	1 Product-Group	2 Product-Process	3 Process-Community
Pedagogic Context	Traditional	Traditional/innovative	Innovative
Pedagogic Design	Teacher-centred	Teacher/student centred	Student centred
Tutor	Leader	Leader/Facilitator	Facilitator
Student Collaboration	Individual/cooperative	Cooperative with some elements of collaboration	Collaborative with some elements of cooperation
Autonomy	Teacher/tutor dependent	Dependent/independent	Teacher/tutor independent
Technological anxiety	Self-Confidence with some elements of anxiety	Technological Self-confidence	Initial Anxiety followed by self-confidence
Social relationship	Social Relationship with some elements of isolation	Social Relationship	Initial Social Isolation followed by social relationship
Assessment	Assessment-anxiety	Assessment Self-confidence with elements of anxiety	Assessment Self-confidence
Significant fact	Participant's post	Participant's post	Tutor/Participant's post
Major agreement	Production of a common work	Production of a common work with some organizational elements	Production of a common project proposal, work-plan with lots of organizational elements
Developmental stages	4	6	6

Table 1 Three Models Comparison

While the elements composing the models are the same, the degree and intensity of their presence will change depending on situations. The specificity and uniqueness of each context, more traditional or innovative one, will define the kind of approach used to design an online course.

Although in each model we can find common categories, the three models are different and they are highly context-related.

Stages of development in a product-related model will be less in number and in duration than those of a more process-related one. In the former the students having less time available will have no need to spend time for meta-reflection, development of organizational skills and discussion.

Discussion and Links with the literature

This study constitutes a unique contribution in the field since it illustrates that:

- virtual learning groups develop in a different way from face to face ones.
- Virtual learning groups develop according to three different possible developmental Models, strongly influenced by the course design.
- Each model is the result of a special combination of some different key elements and developmental stages.
- the use of a qualitative grounded theory approach is necessary in order to build new fresh theorisation from raw data.

the comparative analysis done under holistic, systematic and qualitative lens, preserves the uniqueness of each group and contexts too.

Linking this research with the literature, we can observe some kinds of similarities and connections between the categories proposed by Hewling (2006) and those of this study. Hewling proposes some key topics emerging from her work such as: IT skills, social aspect of technology, community, collaboration, time, authority, tutor, assessment, knowledge, control, which have something in common with the categories of this work. In detail, there are similarities also between the “negotiation incidents” process she proposes and the use made here of the developmental stages. However, these concepts show some differences since the developmental stages are consequential, while the negotiation incidents are interchangeable. Furthermore while the latter elements are more about “cultural negotiation” the former ones are more about community and e-group development. However Hewling (2006) pays attention to the importance of reflection and transformation online, at the same time. Identity building is one of the crucial processes for online learning. Reflection, meta-reflection, and a democratic dialogue play central roles. These are, however, elements of a non-authoritarian model where critical thinking and reciprocal exchanges are protagonist (Sorensen and Murchù, 2005).

Furthermore, McLoughlin’s (2001) theorization not only gives great attention to the culture for the development of an “inclusive curriculum” but she also emphasises the role of the assessment for a constructive alignment between theory and practice. She also proposes a “Continuum” among the categories while considering online learning. The community, the assessment, the process and the product, the flexible and rigid content, the social relationship and the teacher’s and student’s roles all play here an important role.

Gunawardena *et.al* (2001), as discussed earlier, present some influential elements for online group process, some of which were also perceived as influential in this same research work namely: power distance, collectivist/individualistic tendencies, social presence, time frame and technological skills. However, because of the holistic approach of the research reported here, no specific distinction is made between group process and group development as Gunawardena *et. al* did, since both are interconnected and reciprocally influential.

Finally McConnell (2006) proposes four group developmental phases which presents a structure more similar to proposed for the EM here and so for more Process Oriented Models. He presents the concept of “milestones” “as a point in the work of the group when something pivotal occurs” (p. 160). This concept has something in common with the concept of “significant fact” proposed in this study. Examples of milestones are: the group making important decisions, an event which makes the group focus on a specific task and so on.

In conclusion, these theories could be used to support the outcomes of this study, although each of them presents differences and peculiarities which cannot be easily generalised. The use of current theorization comes in this case, as a support to the research framework used and it helps to add further credibility and consistency to it.

Conclusions

Table 2 here below represents the summary of all the Developmental Stages found in each Models. In a *Product Oriented Model* some developmental stages are skipped and are less articulated if compared with those of the more Process Oriented Model. The initial experimentation stage, for example, is missed because it is compensated by the presence of face-to-face meetings and so no anxiety for technology seems to prevail. This way the next stages seem to speed up because production of artefacts takes place immediately after the opening of the course with little if no planning and negotiation at all. The passage between one production stage and the

following one takes place through the submission of new artefacts. Individual in-presence assessment closes the development. The developmental process appears very short and more oriented to pure production rather than to reflection and personal change. All the stages appear influenced by a certain degree of anxiety for assessment as well as of the tutor's attitude towards the course which is that of a "mediator" between the teacher in charge and the students.

A *Product/Process Oriented Model* presents characteristics in between the Product and the Process one. Production is the main element of stage three and four, however some meta-reflection is introduced as well. Assessment becomes central in stage five and six and some self-reflection is supported. Hence, this model is not totally product-focused since some reflective elements, negotiation and discussion are introduced. As for the Product Oriented Model, initial social relationships are enhanced with face-to-face meetings. In this kind of model less time is needed in order to start producing an artefact which is however the result of a collaborative work although not always it is well organized. All the stages appear influenced by a certain degree of anxiety for assessment as well as of the tutor's attitude towards the course which is that of a "mediator" between the teacher and the students.

A *Process Oriented Model* is characterised by an initial stage of experimentation about the use of technology. Some anxiety is present and needs to be elaborated. However, the initial experimentation phase is necessary in order for participant to get familiar with: technology use, new communicative paradigms, other participants, the course and the new environment. In this schema, later stages of reflection, meta-reflection, production and assessment, are reached after the previous stages about initial planning, negotiation and discussion have passed. Hence in a way, deep meta- and self-reflection are not possible at the beginning of the group development if enough experimentation, negotiation and planning have not taken place before. Anxiety for assessment is however not visible and participants play a certain degree of influence and control over their learning. The tutor attitude is that of a "tutor-participant".

1. PRODUCT ORIENTED MODEL(blended)	2. PRODUCT/PROCESS ORIENTED MODEL (blended)	3. PROCESS ORIENTED MODEL (online)
1. OPENING – PLANNING - NEGOTIATING – DISCUSSING	1. OPENING – PLANNING - NEGOTIATION –DISCUSSION	1. OPENING- EXPERIMENTATION (more emphasis on technological anxiety)
2. PRODUCTION (cooperative activities)	2. FURHTER NEGOTIATION – PLANNING (emphasis on social issues)	2. PLANNING – NEGOTIATION – DISCUSSION (more emphasis on autonomy and collaboration)
3. FURTHER PRODUCTION (individual activities)	3. PRODUCTION – SOMEHOW META-REFLECTION (cooperative, collaborative activities)	3. FURHTER PLANNING – NEGOTIATION (more emphasis on social relationship)
4. CLOSURE – ASSESSMENT (individual, face-to-face)	4. FURHTER PRODUCTION – SOMEHOW META-REFLECTION	4. PRODUCTION-META REFLECTION (more emphasis on autonomy, collaboration and social issues)
	5. ASSESSMENT – SELF-REFLECTION (online)	5. ASSESSMENT / SELF-REFLECTION (more emphasis on assessment and autonomy)
	6. CLOSURE – ASSESSMENT (face-to-face)	6. CLOSURE – ENJOYEMENT (more emphasis on social relationship)

Table 2: Developmental Stages Comparison

The aim of this work was that of trying to provide some explanations and interpretations of what really happens online while teaching and learning in groups. However, although some answers were provided, some other issues still remain open for further investigation. They are: "How is participants' experience of online collaborative group in different contexts?"; "Is it possible to find/apply one or more of the three Models proposed in this study to other or similar e-learning settings?".

Furthermore, the exploration of the link between different cultures, online learning community development and course design might represent a key feature since the spread of courses internationally run, bring together people coming from all over the world. Hence further questions still remain open: "What kind of online design is needed and applied in practice for different contexts?" "Does this design match with the real online practice?".

Goodfellow (2004) envisages for comparative studies looking at experiences of online students across different international contexts.

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